Smallpox and Monkeypox (Monkeypox): Very brief historical notes

Varíola e Varíola dos macacos (Monkeypox): Brevíssimos apontamentos históricos

Viruela y Viruela del Mono (Monkeypox): Notas históricas muy breves

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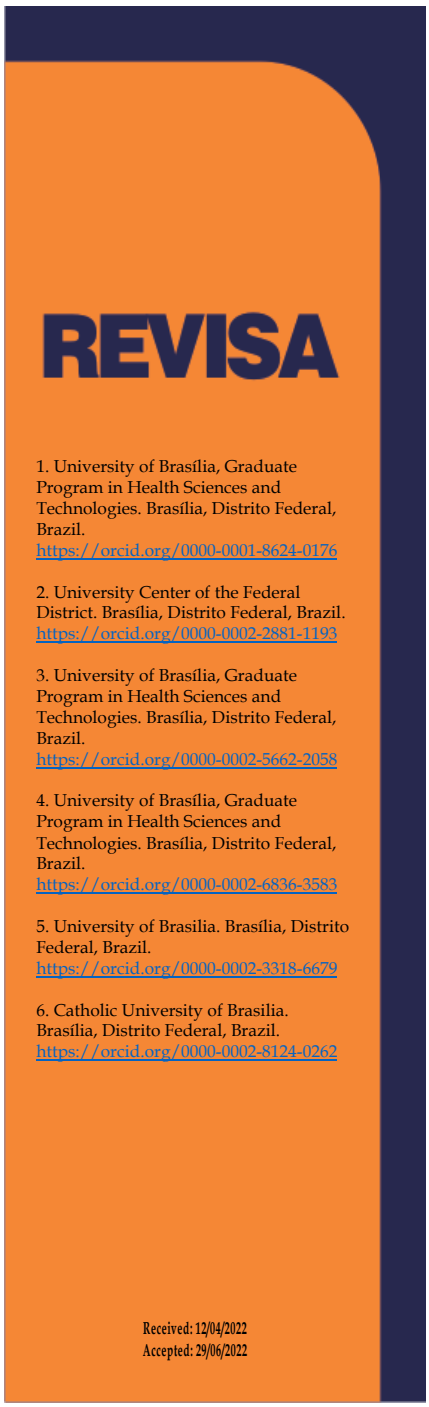

The word variola or smallpox, etymologically originates from the Vulgar Latin "varius", being formed through the root "vari", which is present in numerous entries, such as "various", "variety" and "varicella", the latter being the diminutive of smallpox and, having as a meaning, "marked", or by extension, with "spots".[1,2,3] According to some ancient reports, it is considered that it would have appeared initially in India or Egypt, being also described later with the Asian continent and still, in Africa since before the Anno Domini (A.D.), that is, of what is considered the Christian era.[1,9]

For some researchers, smallpox received this designation, due to the numerous spots that spread on the patient's skin, in the case of humans, and also on the crests of birds and on the udders, that is, the "udders" of cows (Bos taurus).[3,5] The alchemist, physician and polymath "Abū Bakr Muhammad Zakariyyā Rāzī", better known as Rhazes or Rasis (AD 865-925), elaborated clinical descriptions of smallpox and also of measles, thus facilitating , that the signs and symptoms of these diseases could be distinguished, facilitating their diagnosis, treatment and choice of therapies.[2]

In this context, smallpox is known historically, as a disease, already recognized, for example, with the Ming dynasty (1368 - 1644 AD) and also identified in the Empire of the Great Ming, having as founder of this royal family, Chu Yuan-Chang , victim of this disease and who had his skin heavily injured by this disease.[3] Aware of the historicity of smallpox, its identification is easily verified in several nations and in its derivations, where, in the context of public health, it was possible to verify in some studies that the first vaccines and/or immunobiologicals were implemented for their combat and control and, tested in seven (07) people, classified as "criminals" and of English origin, this fact being dated in the 18th century.[4,6]

EDITORIAL

For some researchers, another episode that was also known as the "*first report of the development of smallpox research*", could be classified as abusive, inhuman and illegal, occurred in the year 1721, when an experiment was implemented, with the testing implemented in people who were inmates in the prison system.[4,6] In this context, what was called the "Greek method" was used, aiming to avoid the acquisition of smallpox, consisting in making "cruciform" drawings, together with the people's cheeks and also, in their chins, using for this activity, a needle that had been soaked with the secretion of the lesions of another person who was infected by this complex and violent disease.[4,6]

The complexity and magnitude of this disease is such that smallpox was used in the past, including as a biological weapon, that is, in the manipulation of various pathogens, as bacteria, fungi, protozoa or even viruses, aiming at extermination. of living beings.[6,7] The manipulation of infectious microorganisms in the form of biological-type artifacts is pointed out in relation to the armies of Hernán Cortez, during the theaters of war that took place in Mexico, which is the main cause of the defeat of pre civilization. -Colombian Aztec, who did not have any type of immunity against this powerful and deadly pathological agent.[6,7]

As identified in other studies and research, smallpox was also used as a "biological weapon", by countless military troops in belligerence events, in the processes of invasion, colonization and exploitation of indigenous societies, mainly in several regions belonging to the American continent.[7,8] After the combination of global efforts, as well as a series of strategies, policies, articulations and health measures implemented jointly by several nations, guided by the World Health Organization (WHO), in conjunction with the Ministries of Health (MOH) international studies, smallpox had a reduction in its mortality, transmissibility and, consequently, was eradicated in the last decade of the seventies (70), constituting this phenomenon as a true victory for public health.[10]

In the efforts implemented to eradicate smallpox in the 1970s, it was possible to isolate the virus from a patient who had suspected infection, and who came from the Democratic Republic of Congo (DRC).[11,12,13] As a form of to combat and control this public health issue, several measures were carried out and through a global and joint effort, on May 8, 1980, at the 33rd World Health Assembly (33rd WHA), it was officially declared by the World Health Organization Health (WHO) that the world and all its people were free from "smallpox".[14]

In the first months of 2022, it was identified in several nations, which is known as "monkey pox", or also "*monkey pox*" or even "*monkeypox*", being it a viral disease, which normally infects primates and rodents.[2,11,15] This viral zoonosis is caused by the "*Monkeypox*" type virus, belonging to the "Orthopoxvirus" genus and part of the "*Poxviridae*" family, having as an incubation period, usually the amount of six (06) to thirteen (13) days and, dermatological manifestations in the form of pustules, that is, blisters along the skin of the infected person.[2,11,15]

Among the signs identified with the person who contracted monkeypox, hyperthermia or fever above 38.5°C, headache, myalgia, low back pain, profound weakness, in addition to the presence of swollen lymph nodes, can be mentioned.[11, 12.15] In in addition to performing a physical examination with the patient, aiming to identify the dermatological manifestations among the aforementioned signs and symptoms, it is also important to carry out a laboratory diagnosis, as a component for its identification and surveillance of

this disease, through the request of exams specific.[10,11,12,15]

According to the Pan American Health Organization (PAHO), when analyzing the issue of monkeypox in fifty-five (55) nations located in the Americas, the highest preponderance identified was in the United States (USA) with 68.7% (n =4,897) confirmed cases, until July 29, 2022, as shown in table 01.16 In the second, third and fourth place, Brazil, Canada and Peru were identified, respectively, which accounted for 13.7% (n= 978), 11.3% (n=803) and 3.8% (n=269).[16]

Table 1 – Presentation of the frequency of confirmed, suspected and probable cases by percentage of monkeypox by country/territory in the Americas:*,**,***,****,*****

Country	Confirmed	%	Likely	%	Suspect	%
USA	4.897	68,7	-	-	-	-
Brazil	978	13,7	-	-	544	97
Canada	803	11,3	104	98,1	-	-
Peru	269	3,8	-	-	2	0,4
Mexico	59	0,8	-	-	-	-
Chile	55	0,8	1	0,9	-	-
Argentina	20	0,3	-	-	-	-
Puerto Rico	13	0,2	-	-	12	2,1
Colômbia	12	0,2	-	-	-	-
Costa Rica	3	0,0	-	-	2	0,4
Ecuador	3	0,0	-	-	-	-
Dominican Republic	3	0,0	1	0,9	-	-
Jamaica	2	-	-	-	-	-
Bahamas	1	-	-	-	1	0,2
Barbados	1	-	-	-	-	-
Bermuda	1	-	-	-	-	-
Martinique	1	-	-	-	-	-
Panama	1	-	-	-	-	-
Venezuela	1	-	-	-	-	-
anguilla	-	-	-	-	-	-
antigua and barbuda	-	-	-	-	-	-
aruba	-	-	-	-	-	-
Belize	-	-	-	-	-	-
Bolivia	-	-	-	-	-	-
Bonaire	-	-	-	-	-	-
Cuba	-	-	-	-	-	-
curacao	-	-	-	-	-	-
dominica	-	-	-	-	-	-
El Salvador	-	-	-	-	-	-
Grenade	-	-	-	-	-	-
Guadeloupe	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-
Guyana	-	-	-	-	-	-
French Guiana	-	-	-	-	-	-
Haiti	-	-	-	-	-	-
Honduras	-	-	-	-	-	-
Cayman Islands	-	-	-	-	-	-

Falkland Islands	-	-	-	-	-	-
Turks and Caicos Islands	-	-	-	-	-	-
US Virgin Islands	-	-	-	-	-	-
British Virgin Islands	-	-	-	-	-	-
Montserrat	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-
Paraguay	-	-	-	-	-	-
Saint Lucia	-	-	-	-	-	-
Saint Eustace	-	-	-	-	-	-
Saint Bartholomew	-	-	-	-	-	-
Saint Kitts and Nevis	-	-	-	-	-	-
Saint Martin	-	-	-	-	-	-
Saint Martin	-	-	-	-	-	-
Saint Peter and Miquelon	-	-	-	-	-	-
Saint Vincent and the Grenadines	-	-	-	-	-	-
Suriname	-	-	-	-	-	-
Trinidad and Tobago	-	-	-	-	-	-
Uruguay	-	-	-	-	-	-
Total	**7.123**	**100**	**106**	**100**	**561**	**100**

Source: Adapted from PAHO, 2022.
* The authors are faithful to the sources consulted; ** The data presented are updated until 07/29/2022, at 12:00 pm; ***According to PAHO, official sources include information submitted by the International Health Regulations Focal Points (IHR) or published on the websites of Ministries of Health, Health Agencies or similar at national or subnational level before 16:00 GTM -5 and reproduced by PAHO/WHO at 18:00 GTM-5, Monday through Friday; **** Due to several factors, the data presented may undergo some type of change(s). ; ***** According to PAHO, panel data is updated once a day between 5:30 pm-6:00 pm GTM-5.

When analyzing the issue of the number of identified cases of monkeypox in Brazil, until 07/29/2022 at 12:00 pm, the universe of 978 records was accounted for, with the Southeast region (SE) having the highest concentration of cases. cases totaling 92.7% (n=907) and the North region (N) the smallest with 0.2% (n=02), as shown in table 02.[17] In the second, third and fourth place, the Center region was identified -West (CO), South (S), and Northeast (NE), which respectively recorded values of 3% (n=29), 2.7% (n=26) and 1.4% (n= 14).[17]

Table 2 – Presentation of the frequency of registered cases and percentage of monkeypox, by regions in Brazil, 2022 (n=978):*,**,***

Regions	f	%
Southeast	907	92,7
Midwest	29	3
South	26	2,7
North Est	14	1,4
North	2	0,2
Total	**978**	**100**

Source: Adapted from MS, 2022.
* The authors are faithful to the sources consulted.; ** The data presented are updated until 07/29/2022, at 12:00 pm; *** Due to several factors, the data presented may undergo some type of change(s).

When analyzing the issue of the number of registered cases of monkeypox in Brazil, by federative units (UF), until 07/29/2022 at 12:00 pm, it was possible to verify that the state of São Paulo (SP) registered the highest concentration, accounting for 76.1% (n=744) and the lowest, were identified in

the states of Acre (AC), Mato Grosso (MT) and Tocantins (TO), each with 0.1% (n=1), as shown in table 03.[17] As a way of combating, controlling and mitigating the direct and indirect impacts generated by the issue of monkeypox in Brazil, its highest body responsible for the health issue, held on 07/29/2022 the first meeting of the Emergency Operation Center (COE), aiming to implement a "Contingency Plan", in relation to the outbreak of this disease.[17,18]

Table 3 – Presentation of the frequency of registered cases of monkeypox, by federative units (FU) and percentage, in Brazil, 2022 (n=978):*,**,***

UF	f	%
São Paulo	744	76,1
Rio de Janeiro	117	12
Minas Gerais	44	4,5
Paraná	19	1,9
Distrito Federal	15	1,5
Goiás	13	1,3
Bahia	5	0,5
Ceará	4	0,4
Santa Catarina	4	0,4
Pernambuco	3	0,3
Rio Grande do Sul	3	0,3
Espírito Santo	2	0,2
Rio Grande do Norte	2	0,2
Acre	1	0,1
Mato Grosso	1	0,1
Tocantins	1	0,1
Total	**978**	**100**

Source: Adapted from MS, 2022.
* The authors are faithful to the sources consulted.; ** The data presented are updated until 07/29/2022, at 12:00 pm; *** Due to several factors, the data presented may undergo some type of change(s).

In this way, the actions and strategies developed by the MS COE also count on the active participation of several bodies of fundamental importance for health in Brazil, aiming to facilitate the fight and mitigation of the impacts related to monkeypox, together with all federative units. (UFs) and constituent municipalities.[18] Among the various bodies participating in the MS COE, the National Council of Health Secretaries (CONASS), the National Council of Municipal Health Secretaries (CONASEMS), the Pan American Organization of Health (PAHO), the National Health Surveillance Agency (ANVISA) and the National Institute of Infectious Diseases Evandro Chagas of the Oswaldo Cruz Foundation (FIOCRUZ).[18]

In a recent study that analyzed the current outbreak of monkeypox, published in the British Medicine Journal (BMJ), new signs and symptoms associated with people who reported the disease were identified.19 In this way, an observational analysis was carried out in a universe of 197 patients, being possible to describe mainly the presence of signs such as penile edema and also pain in the rectal region, being diagnosed in patients who were being treated in London, England.[19]

Another issue pointed out by this publication is the community transmission of monkeypox in London and, possibly, in other European nations, thus requiring that efforts and strategies to contain this infectious disease be redoubled.19 The greatest preponderance among the people analyzed in the present research, they declared themselves to be gay, bisexual and men who have sex with men, they were aged between 21 and 67 years old and an average of 38 years old, and all of them had lesions close to the skin, most commonly identified in the genitals (56.3 %) or in the perianal region (41.6%).[19]

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References

1. McNeill WH. Plagues and People. New York: Doubleday. 1976. 368p.
2. Rooney A. A história da medicina: Das primeiras curas aos milagres da medicina moderna. São Paulo: MBooks. 2013. 216p.
3. Farrell, Jeanette. A assustadora história das pestes & epidemias. São Paulo: Ediouro, 2003. 279p.
4.Tengan C, Venancio PC, Marcondes FK, Rosalen PL. Autonomia e vulnerabilidade do sujeito da pesquisa. Revista de Direito Sanitário.
5. Bezerra AJC. Admirável mundo médico: A arte na história da medicina. Brasília: CRM-DF. 2002. 109p.
6. Toledo Jr, AC de C. História da varíola. Rev Med Minas Gerais. 2005;15(1):58-65.
7. Schatzmayr HG. A varíola, uma antiga inimiga. Cad. Saúde Pública. 2001;17(6): 1525-1530. doi: https://doi.org/10.1590/S0102-311X2001000600024.
8. Garret L. The Coming Plague. New York: Farrar, Straus & Giroux. 1995. 768p.
9. World Health Organization. Programmes and projects. Media centre. Fact sheets. Smallpox. Available in: [https://web.archive.org/web/20070921235036/http: //www.who.int/mediacentre/factsheets/smallpox/en/]. Access in: 19 jun 2022.
10. Di Giulio DB, Eckburg PB. Human monkeypox: an emerging zoonosis. The Lancet infectious diseases. 2004; 4(1):15-25. doi: https://doi.org/10.1016/S1473-3099(03)00856-9.
11. Ministério da Saúde. Biblioteca Virtual em Saúde. Varíola dos macacos. Disponível em: [https://bvsms.saude.gov.br/02-6-variola-dos-macacos/]. Acesso em: 02 ago 2022.
12. McCollum AM, Damon IK. Human Monkeypox. *Clinical Infectious Diseases*. 2014;58(2):260-267. doi: https://doi.org/10.1093/cid/cit703.

13. Ladnyj ID, Ziegler P, Kima E. A human infection caused by monkeypox virus in Basankusu Territory, Democratic Republic of the Congo. Bull World Health Organ 1972; 46:593–7.
14. Organização Pan-Americana da Saúde. Erradicação da varíola: um legado de esperança para COVID-19 e outras doenças. Disponível em: [https://www.paho.org/pt/noticias/8-5-2020-erradicacao-da-variola-um-legado-esperanca-para-covid-19-e-outras-doencas]. Acesso em: 19 jun 2022.
15. Organização Pan-Americana da Saúde. Início. Varíola dos macacos. Disponível em: [https://www.paho.org/pt/variola-dos-macacos]. Acesso em: 18 jun 2022.
16. Pan American Heath Organization. Monkeypox cases. Region of the Americas. Available in: [https://shiny.pahobra.org/monkeypox/]. Access in: 29 jul 2022.
17. Brasil. Agência Brasil. Brasil registra 978 casos de varíola dos macacos. Ministério da Saúde executa articulação com estados para monitoramento. Disponível em: [https://agenciabrasil.ebc.com.br/saude/noticia/2022-07/brasil-registra-978-casos-de-variola-dos-macacos]. Acesso em 02 ago 2022.
18. Brasil. Ministério da Saúde. Monitoramento. Ministério da Saúde ativa Centro

de Operação de Emergências para monkeypox. Pasta articula tratativas para aquisição de vacina contra a doença. Disponível em: [https://www.gov.br/saude/pt-br/assuntos/noticias/2022./julho/ministerio-da-saude-ativa-centro-de-operacao-de-emergencias-para-monkeypox]. Acesso em: 02 ago 2022.
19. Patel A, Bilinska J, Tam JCH, Da Silva Fontoura D, Mason CY, Daunt A, Snell LB, Murphy J, Potter J, Tuudah C, Sundramoorthi R, Abeywickrema M, Pley C, Naidu V, Nebbia G, Aarons E, Botgros A, Douthwaite ST, van Nispen Tot Pannerden C, Winslow H, Brown A, Chilton D, Nori A. Clinical features and novel presentations of human monkeypox in a central London centre during the 2022 outbreak: descriptive case series. BMJ. 2022 Jul 28;378:e072410. doi: 10.1136/bmj-2022-072410. PMID: 35902115.

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The humanization of nursing care facing the use of technologies in the intensive care unit

A humanização do cuidado de enfermagem frente à utilização de tecnologias em unidade de terapia intensiva

La humanización del cuidado de enfermería frente al uso de tecnologías en la unidad de cuidados intensivos

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RESUMO

Objetivo: investigar se a desumanização está diretamente ligada às tecnologias, enquanto instrumentos para cuidar, ou às unidades de terapia intensiva, enquanto ambiente tecnológicos. **Método:** Revisão integrativa da literatura realizada no período de junho a agosto de 2021 nas bases de dados Lilacs, Bireme e Scielo. **Resultados:** Foi realizado uma busca pelos descritores em saúde determinados e após análise sistemática dos artigos foram selecionadas 09 produções cientificas que atenderam os critérios de inclusão. **Conclusão:** Sugere-se que sejam estimuladas pesquisas que busquem de forma criativa valorizar a humanização frente ao uso das tecnologias no cuidado ao paciente hospitalizado, pois sabe-se que o ato do cuidar possui representatividade nas diferentes dimensões do ser humano, seja física, psicológica, emocional e espiritual.
Descritores: Unidade de Terapia Intensiva; Humanização; Tecnologias.

ABSTRACT

Objective: to investigate whether dehumanization is directly linked to technologies, as instruments for care, or to intensive care units, as technological environments. **Method:** Integrative literature review carried out from June to August 2021 Lilacs, Bireme and Scielo databases. **Results:** A search was carried out for the determined health descriptors and after systematic analysis of the articles, 09 scientific productions that met the inclusion criteria were selected. **Conclusion:** It is suggested that research be encouraged that creatively seeks to value humanization against the use of technology in the care of hospitalized patients, as it is known that the act of caring has representation in different dimensions of the human being, whether physical or psychological, emotional and spiritual.
Descriptors: Intensive care unit; Humanization; Technologies.

RESUMEN

Objetivo: investigar si la deshumanización está directamente vinculada a las tecnologías, como instrumentos de atención, oa las unidades de cuidados intensivos, como entornos tecnológicos. **Método:** revisión integrativa de la literatura realizada de junio a agosto de 2021 bases de datos Lilas, Bireme y Scielo. **Resultados:** se realizó una búsqueda de los descriptores de salud determinados y luego del análisis sistemático de los artículos, se seleccionaron 09 producciones científicas que cumplieron con los criterios de inclusión. **Conclusión:** Se sugiere incentivar investigaciones que busquen creativamente valorar la humanización frente al uso de la tecnología en el cuidado del paciente hospitalizado, ya que se sabe que el acto de cuidar tiene representación en diferentes dimensiones del ser humano, ya sea físico o psicológico, emocional y espiritual.
Descriptores: Unidad de Cuidados Intensivos; Humanización; Tecnologías.

Introduction

Intensive care units (ICU) emerged from the need for rigorous and uninterrupted observation of critically ill clients. In the beginning of the 19th century, the need to reserve a specific area to provide special care to acutely ill patients had already been observed.[1] However, it was only in the 20th century that there was news of the creation of the first intensive care unit, created at the John Hopkins Hospital, in the United States of America, in the 1920s. It was in this decade that the figure of the nurse was inserted in the context of these units, when she was assigned the responsibility for the constant observation/monitoring of high-risk clients who were hospitalized there.[2]

In Brazil, it was only from 1970 onwards that these units began to be disseminated in our milieu. Certainly, this was a time of great challenges and meaning for Brazilian nurses, as they needed to keep up with scientific and technological development, without letting nursing care with constant presence with the client be overshadowed or relegated to the background bed.

However, at the same time that technology meant for these professionals to overcome fear and insecurity when caring for the critical client, many of these professionals believed that it ended up removing the nursing professional from the client's bedside. It is possible that this concern may be related to the emergence of a discourse by health professionals, absorbed by nursing, that the practice of care in the ICU is inhumane.[3]

This inhumanity considers that the incorporation of technologies in these units has enabled many procedures that were previously performed directly by nursing professionals to be replaced by electronic devices and equipment. This discourse seems so real that it led the Ministry of Health (MS) to publish in 2001, an ordinance instituting the National Program for the Humanization of Hospital Care, called Humaniza - SUS.

The relationship of the nursing professional with the machines and the possibility of dehumanization in care has also been of concern to a significant number of nursing professionals working in the ICU. In Congresses and Symposia on Nursing in Intensive Care, the topic of humanization is frequently discussed.[4]

The result found, many times, is that the humanization of these units is an urgent need, even when it is not really known if they are inhumane. This leads to the following question: What is there in intensive care or nursing care that is provided there that is capable of threatening the human condition?

The answer may be related to the machines used in these units, which apparently overshadow the subjectivity and intersubjectivity of nursing actions in view of the large amount of rational activities, from procedures such as simple hand washing to the aspiration of intubated clients. This situation requires from nursing a set of rational knowledge and appropriate technologies, which does not eliminate the possibility of considering other aspects such as spirituality, emotions and verbal and non-verbal bodily reactions of people who depend on machines and nursing professionals to survive[1].

Another issue to be explored is whether nursing in these units is aware of this. In this sense, it is believed that a better reflection on the meaning of care in the ICU and the use of technology by nursing professionals can contribute to a

better understanding of the peculiarities of this care and the expansion of its concepts.[3]

In this perspective, and in an attempt to deepen the reflections on the relationship between man, care and technology, it was decided to study the emerging meanings of this relationship, capable of promoting the discourse of humanization in intensive care, considering the rapid and constant appropriations of new technologies to care for in these units.

Therefore, the option to study the meaning of care in the ICU is justified, given that the intensive care unit is a fruitful place to find meanings about the practice of care using technology. Thus, it becomes possible to find the bases that will enable the (de)construction of the dehumanization discourse in these units, that is, the belief that the use of technology can support the understanding that the care provided by nursing professionals in ICUs can be inhuman.[4]

The word technology refers to the thinking of work/production/machine, corroborating the enslavement of the world of machines, through a separatist logic between care and work. It also goes back to specialized units such as intensive care units, in which the human being is connected to a whole technological apparatus, that is, to a variety of sophisticated and complex devices.[5]

Technological advancement in health is an achievement and its relevance is unquestionable, but reflected in the way it is used. The act of promoting comfort is intrinsic to nursing practice and essential to human care, however minimized in the face of technologies in complex environments.[2]

The technological process is implemented in our daily lives in all aspects, both personally and professionally, trends are routinely inserted in our daily lives in order to contribute mainly to the optimization of time, generating significant changes.[6]

Technologies have increased exponentially since the mid-twentieth century, making it inconceivable today to provide quality services without the use of technologies, many of them of an innovative nature. Medical-scientific technologies have made enormous contributions to people's health. Suffice it to mention the advances arising from the invention or discovery of antiseptics, anesthetics, antibiotics, vaccines, etc.[7]

Since ancient times, human beings have been constantly looking for technological advances for their survival, such as the discovery of fire or technological instruments. In this sense, industrialization determined advances that promoted the rise and development of all fields of knowledge, including health, with the use of information technology and sophisticated equipment that enabled the fight against diseases and the search for better living conditions and health.[8]

Nowadays, this growing technological innovation is available to professionals and users. However, despite the constant and determinant use of technologies, its concept has been misused, as it has been attributed in daily practice only as a machine or product. Thus, it is important to emphasize that technologies should not be seen from a reductionist perspective associated only with equipment.[8]

In the field of health, technology is not opposed to human touch, but configures itself as an agent and object of this touch. The ambiguities of technologies, sometimes product, sometimes meaning and sometimes product,

sometimes process, do not characterize it as inhumane, but confirm its objective side and its social side. Thus, its main purpose is to make human activity increasingly efficient through the production or improvement of technologies, which directly and/or indirectly, are at the service of care.[9]

In this context, the emergence and structuring of Intensive Care Units (ICU) in hospitals occurred mainly to receive critically ill patients with a positive prognosis, but also considering this perception of the need to keep up with evolving contemporary technological processes in favor of health care, in order to offer differentiated care, constant surveillance by the multidisciplinary team that lasts 24 hours a day.[10]

The Intensive Care Unit (ICU) is a critical area with critically ill patients, who require maximum attention and specialized professional assistance on a full and continuous basis, specific materials and resources necessary for diagnosis (monitoring and therapies exclusive to the sector), always having the need for investment in continuing education for all professionals who work there, thus aiming at patient safety and protection.[11]

In view of the need for more complex care required in the sector, the presence of nurses is essential, considering their responsibility in the exercise of nursing, which among so many attributions proposes to provide the necessary subsidies in the areas of management, surveillance and qualified assistance to patients, evidencing the essence of an organized and dynamic routine to carry out work free of damage and/or risks.[11]

With the changes brought about by technological advances, nursing professionals were conditioned to undergo an adaptation process in order to generate harmony between theory, technical procedures and technology, considering that with technological advances a range of benefits arises. to the patient who goes through the reduction of the time of their treatment/hospitalization or, in some cases, assume the maintenance of life.[12]

It is noteworthy that the evolutionary process that nursing care underwent under the direct influence of the implementation and technological development in the ICU, enabled the improvement of care for the sick, enhancing the reliability of data obtained in their monitoring and optimizing the treatment, as a result, reducing your length of stay.[12]

Therefore, it is seen that the care of critically ill patients requires the use of a specific technological arsenal and, for its use, the nurse must have knowledge and skills regarding the operation of the machine and the adequacy of the needs of those who need it her.[13]

ICUs are considered special places that demand a high degree of specialization in the work of the nursing team and require adequate training from the worker, an affinity to work in closed units and a different resistance from others who work in other hospital areas.[13]

In the current context, care in the ICU today, more than in the past, has been distinguished by the incorporation/use of new technologies, opening new horizons and new perspectives for improving the quality of work/care and life of the subjects who care for and of those who are cared for.[14]

It is understood that the humanization of health services implies transforming the very way the service user is conceived - from a passive object to the subject, from in need of charitable acts to those who exercise the right to be a user of a service that guarantees actions technically, politically and ethically

safe, provided by responsible workers. Finally, this transformation refers to a political stance that focuses on health in a broader dimension, related to living conditions inserted in a sociopolitical and economic context.[14]

In the process of humanization of health/nursing care, it is intuited that, unlike the charitable perspective that points out the worker as having certain previously defined and even idealized characteristics, its participation as a subject who, being also human, can be capable of human and "inhuman" attitudes built in relationships with the other in everyday life.[15]

However, it is necessary to keep in mind that technology, as important and indispensable as it may be, does not surpass the human essence that makes it possible to criticize and build a more human and less hostile reality within the ICUs.[15]

In care practice, nurses must be aware that technology must become an ally and not a villain, making the care provided to patients as humane as possible in a holistic way, that is, treating them as a whole, but in a unique way. As he is the one in charge of the nursing team, he must have a critical sense in relation to the technological instruments, doing it responsibly and rationally. Constantly supervising the work of your team, providing education and knowledge so that assistance is better provided.[15]

One of the challenges faced by the health sector in this century has been the attempt to combine the technological resources of the ICU with humanitarian values, as, in this space, professionals remain in constant interaction with the technicality of care, essential for the maintenance of life and the proximity of death.[16]

The work of Nursing in the ICU covers several needs to qualify the care provided to the patient and family with a focus on humanization, being necessary for the professional to combine technical-scientific knowledge to provide safe and better quality humanized care.[17]

Actions between professionals, the critical situation of patients and the use of various technologies require specific knowledge to develop care based on the principle of comprehensiveness, one of the principles of the Unified Health System (UHS), which considers people holistically, in their biopsychosocial needs.[17]

Amidst technological innovations, it is a challenge for nurses and the nursing staff to associate humanized care and technology. The intensive care unit (ICU) is characterized by state-of-the-art technology, having an arsenal of equipment that offers support and constant monitoring to patients in critical condition15. Intensive nursing care, in the context of humanization, seeks to meet the needs of users and their families, taking effect from the perspective of the expanded clinic and the co-responsibility of care. It is noteworthy that it is a challenge for health professionals, especially in the ICU, due to the characteristics of this unit.[17]

In this sense, the aim of this study was to investigate whether dehumanization is directly linked to technologies, as instruments for care, or to intensive care units, as technological environments.

Method

Literature review is the process of searching, analyzing and describing a

body of knowledge in search of an answer to a specific question. "Literature" covers all the relevant material that is written on a topic: books, journal articles, newspaper articles, historical records, government reports, theses and dissertations, and other types. The systematic chosen in the present work was the bibliographical research, which deals with the search for a problematization of a research theme from published references, analyzing and discussing the cultural and scientific contributions. It constitutes an excellent technique to provide the researcher with the theoretical background, knowledge, and scientific training that enable the production of original and pertinent works.[18]

Literature review is a vital part of the research process. This involves locating, analyzing, synthesizing and interpreting previous research (scientific journals, books, conference proceedings, abstracts, etc.) related to your field of study; it is, then, a detailed bibliographical analysis, referring to the works already published on the subject.18 A literature review is essential not only to define the problem well, but also to obtain a precise idea about the current state of knowledge on a given topic. , its gaps and the contribution of research to the development of knowledge.[18]

Data collection took place in October 2021 in the following databases: Lilacs- Latin American and Caribbean Literature in Health Sciences, Bireme-Regional Medicine Library, Scielo- Scientific Electronic Library Online. For the search, the following keywords were used: Nursing, technology, humanization. Articles available in full, online and published between 2016 and 2020 were included. Those without a direct relationship with the topic were excluded.

After reading the manuscripts and selecting them, the following information was extracted for analysis: title, objective, results and conclusion. These were analyzed through thematic analysis.

Results e Discussion

With a total of 120 articles identified in the databases, 30 documents were analyzed according to the inclusion and exclusion criteria for review, of which 9 were selected for the study and which met the research object (Chart 1).

Chart 1. Articles selected for the study according to author/year, title and objective. 2021.

Year	Title	Objective
(2016)[2]	Soft technologies applied to nursing care in the intensive care unit: a literature review	Reflect on the use of light technologies in nursing actions in the intensive care center, analyzing the importance of their employability to improve the patient's health.
(2017)[3]	Technology and humanization: challenges managed by nurses in favor of comprehensive care.	Addressing the themes of technology and humanization in hospital organizations, emphasizing conceptual and strategic aspects of these two areas in the Nursing universe.
	Care practices of	To analyze the social representations of

(2019)[13]	intensive care nurses in the face of technologies: analysis in the light of social representations.	nurses' care practices in light of the technologies applied to the client hospitalized in intensive care.
(2018)[15]	The role of nurses in the intensive care unit in view of new health technologies.	Reflecting and understanding whether it is possible in the face of new technological advances such as those existing today, harmonizing this relationship between technology and care in a humane way.
(2016)[4]	Computerized nursing process in the Intensive Care Unit: ergonomics and usability.	To analyze the ergonomics and usability criteria of the Computerized Nursing Process from the International Classification for Nursing Practices in the Intensive Care Unit, according to the standards of the International Organization for Standardization (ISO)
(2018)[19]	Philosophical perspectives on the use of technology in intensive care nursing care.	Reflect on the use of technology in nursing care for critically ill patients in intensive care.
(2020)[20]	The Use of Technologies in Adult Intensive Care Units by the Nursing Team: An Integrative Review.	To identify, through a literature review, the use of technologies present in the Intensive Care Units by the nursing staff and the impact on work.
(2019)[21]	Contributions of Technology for Nursing Care in the Intensive Care Unit.	To investigate the contributions of technological evolution from the perspective of nurses within the Intensive Care Unit (ICU), analyzing the advantages and disadvantages of its use in patient care.
(2021)[22]	Brazilian scientific production on biomedical technologies and patient safety in ICU: integrative review.	Identify the Brazilian scientific production on biomedical technologies and patient safety in the ICU.

The analysis of the characterization of the selected studies showed that technologies seek to enhance the effectiveness of human skills in the most varied spheres, including nursing, thus favoring an improvement in the care process. Therefore, the way of providing care has been modified, changes that have been provided.

The term technology is defined as a cluster of actions, which include methods, procedures, practices and techniques, instruments and equipment that are used with technical and scientific knowledge and knowledge, involving skills and sensitivity to recognize what, why, to who and how to use them.[1]

Technological development has been a constant search of human beings, since the most remote times, and that, systematically, has been determining not only their survival on Earth, but also their capacity for domination and transformation. The discovery of fire, the invention of the wheel and the most advanced technological instruments that facilitate human life today exemplify this intended and achieved technological evolution.[3]

The development and historical transformations experienced by societies count among their causes and effects the developments of technoscience. The context of nursing/health care has been systematically influenced by these changes produced in the field of technology, which has generated several concerns and questions about the benefits, risks and relationships built between workers, patients and the use of technologies as essential tools for nursing/health care.[3]

The growth and historical changes experienced by societies lead to the development of science technology. The scope of care directed to nursing has become systematically motivated by such changes driven by technology, which has brought many exaltations and reflections regarding the advantages, disadvantages and relationships created between professionals, patients and the use of technologies as fundamental mechanisms to nursing care. Especially in intensive care units, critically ill patient care involves the use of a special technological set that mainly requires nurses' understanding and skills both in terms of operating the machinery and its compliance with the needs of those who need it.[20]

In the Intensive Care (IT) area, due to the high degree of complexity, the provision of nursing care needs to reconcile the interaction of the subjectivity of care for human beings with the objectivity of the use of technologies. These are evidently present in this care process, but for the professional to integrate them into their care, it is necessary to apply knowledge on their part so that the two contribute, together, to the patient's rehabilitation effectively.[2]

Technologies in Intensive Care Units (ICUs) help professionals a lot in carrying out care and thus generate benefits for their work, but they must be able to handle them, otherwise instead of benefiting their care they will have the opposite effect causing difficulties in the provision of care.[2]

The nurse who works in this unit needs to have scientific, practical and technical knowledge, in order to be able to make quick and concrete decisions, transmitting security to the entire team and especially reducing the risks that threaten the patient's life.[13]

Technologies in IT greatly benefit nurses in relation to nursing care, as they replace some mechanical actions performed by professionals, making the process faster and more efficient, which is necessary in an ICU, where high-risk patients remain. They make the nurses' work lighter and easier, helping them not to be overloaded with their activities in the unit. Technological innovations are often appearing to assist in care, that is, the professional is increasingly benefited in carrying out their work.[13,19]

The technologies demand extreme knowledge from the professional, because, even with their great benefits, if they are not able to handle them, they can cause great harm to the patient, worsening their clinical condition. The main challenge for professionals in integrating technologies into their care is to acquire knowledge to carry out such an act, as most of the times they have to learn on a daily basis during their practice with other professionals, since, generally, the unit does not has a preparatory method for this, thus making his work difficult.[4]

In the ICU, an environment equipped with high technology, it is easy to see the technical-scientific advances and the search for increasingly safe medicine, given the situations that pose a risk of death. In this sense, it is necessary that professionals who work in this space have knowledge and

experience, and therefore, these personnel, mainly nursing professionals, are responsible for the quality of care provided.[4]

In nursing practice, technology advances in search of improved patient care and the improvement of the work environment. Technology has transformed nursing practice in the workplace, not only in terms of the machines and equipment used, but the skills we have developed and the knowledge we possess, the values we stand for and the importance of nursing to society.[21]

Therefore, technologies must be used in favor of care and to facilitate care practices, thus providing the optimization of the professional's time so that he or she can be closer to being cared for. Therefore, the distancing caused by excessive attention to technologies can explain the difficulties in the communication process, as well as the coldness and frostiness of the interpersonal relationships built in the intensive care units, identified as one of the factors that influence the way in which the care and care practices.[2]

Humanization in the ICU where care is provided to critical patients, health professionals, especially nurses, need to use technology combined with empathy, experience and understanding of the care provided based on therapeutic interpersonal relationships, in order to promote safe care , responsible and ethical in a vulnerable and fragile reality. Caring in Critical Units is an act of love, which is linked to: motivation, commitment, ethical and moral posture, personal, family and social characteristics.[13]

Assisting the patient in a humane way goes far beyond procedures, technological and pharmacological interventions, it is not enough to call them by their name, have a smile on their lips, to assist them in a humane way is to at least try to understand their fears, anxieties, uncertainties, doubts , anguish, its social, psychological and spiritual aspects, understanding what ails you so that the professional can comfort you, leaving you more secure.[22]

The activities of health professionals working at the hospital favor a conception of suffering as natural, on the part of these professionals. The difficulty in establishing a balance between life and death, health and disease, cure and death is constant, and makes workers potentially difficult to manage the tragic. Therefore, it is possible to create a space for depersonalization and distance from the reality of patients[21].

Conclusion

The technologies used in intensive care, regardless of their type, have been gaining more space and reinventing themselves every day, and that is why nursing professionals, in their daily work, have been using them more and more in practice of your care. Through the analysis of the articles, it was possible to conclude that technologies benefit by helping nurses in the action of their care in the ICU and that they also make it difficult to see the fact that they somehow have to specialize in the equipment they use in their practice. to avoid mistakes.

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References

1. Abreu TF, Amendola, KF, Trovo, MM. Tecnologias relacionais como instrumentos para o cuidado na Estratégia Saúde da Família. Revista Brasileira de Enfermagem, Brasília, 2017; 5 (7):981-987. doi.org/10.1590/0034-7167-2016-0337.

2. Almeida Q. Fófano, GA. Tecnologias leves aplicadas ao cuidado de enfermagem na unidade de terapia intensiva: uma revisão de literatura. HU Revista. Juiz de Fora [Internet]. 2016. [cited Set. 2021]; 42(3):191-6. Available from: https://periodicos.ufjf.br/index.php/hurevista/article/view/2494/891.pdf

3. Arone EM, Cunha ICK. O. Tecnologia e humanização: desafios gerenciados pelo enfermeiro em prol da integralidade da assistência. Rev Bras Enferm. 2017;60(6):721-3. doi: http://dx.doi.org/10.1590/S0034-71672007000600019.

4. Almeida, SRW, Dal Sasso, GTM, Barra DCC. Processo de Enfermagem Informatizado em Unidade de Terapia Intensiva: Ergonomia e Usabilidade. Rev Esc Enferm USP.2016; 5(6):998-1004. doi: http://dx.doi.org/10.1590/S0080-623420160000700017.

5. Cestari VRF. Tecnologias do cuidado utilizadas pela enfermagem na assistência ao paciente politraumatizado: uma revisão integrativa. Rev. Cogitare Enfermagem. (2) 20:701-710,2016. doi: http://dx.doi.org/10.5380/ce.v20i4.40819

6. Oliveira EB, Souza NVM. Estresse e inovação tecnológica em unidade de terapia intensiva de cardiologia: tecnologia dura. Revista Enfermagem UERJ [Internet]. 2017[cited Set 07, 2021]; Rio de Janeiro. 20 (4):457-62. Available from: https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/4768/3519.pdf.

7. Novaes HMD. Da produção à avaliação de tecnologias dos sistemas de saúde: desafios do século XXI. Rev. Saúde Pública, 2018; 12 (40):133-40. doi: http://dx.doi.org/10.1590/S0034-89102006000400018.

8. Martins JJ, Albuquerque GL. A utilização de tecnologias relacionais como estratégia para humanização do processo de trabalho de saúde. Ciência, Cuidado e Saúde. 2017; 6(3):351-356. http://dx.doi.org/10.4025/cienccuidsaude.v6i3.4068

9. Rossi FR, Lima MADS. Acolhimento: tecnologia leve nos processos gerenciais do enfermeiro. Rev. Brasileira Enfermagem,2017; 5 (3): 305-310. http://dx.doi.org/10.1590/S0034-71672005000300010

10. Madureira CR, Veiga K, Sant'ana, AFM. Gerenciamento de tecnologia em terapia intensiva. Rev Latino-Am Enferm, 2016, 8(6): 68-75. http://dx.doi.org/10.1590/S0104-11692000000600010

11. Silva LJ, Silva LR, Christoffel MM. Tecnologia e humanização na Unidade de

Terapia Intensiva Neonatal: reflexões no contexto do processo saúde-doença. Revista da Escola de Enfermagem da USP [Internet]. [cited set. 12, 2021]; 3(43): 147-159. Available from: file:///C:/Users/User/AppData/Local/Temp/40409-Article%20Text47840-1-10-20120829.pdf

12. Salvador, PTCO, Oliveira RKM, Costa TD, Santos VEP, Tourinho FSV. Tecnologia e inovação para o cuidado em enfermagem. Revista Enfermagem UERJ[Internet]. [cited 18 set. 2021]; 20(1):111-117. Available from: http://www.facenf.uerj.br/v20n1/v20n1a19.pdf

13. Silva RC, Ferreira MA, Apostolidis T. Práticas de cuidado dos enfermeiros intensivistas face às tecnologias: análise à luz das representações sociais. Texto Contexto Enferm., 2019; 23 (2): 328-337. http://dx.doi.org/10.1590/0104-07072014003780012

14. Reis CCA, Sena EL da S, Fernandes MH. Humanização do cuidado nas unidades de terapia intensiva: revisão integrativa Humanization care in intensive care units: integrative review. R. pesq. cuid. fundam. online [Internet]. [cited. 16 set. 2021]; 8(2):4212-2. Available from: http://C:/Users/User/AppData/Local/Temp/Humanizacao_do_cuidado_nas_unidades_de_terapia_int.pdf.

15. Ouchi JD. O papel do enfermeiro na unidade de terapia intensiva diante de novas tecnologias em saúde. Rev. Saúde em Foco [Internet]. [cited 24 set. 2021];10(14): 412-428. Available from: https://portal.unisepe.com.br/unifia/wp-content/uploads/sites/10001/2018/07/054_O_PAPEL_DO_ENFERMEIRO_NA_UNIDADE_DE_TERAPIA_INTENSIVA.pdf.

16. Sanches RCN. Percepções de profissionais de saúde sobre a humanização em unidade de terapia intensiva adulto. Escola Anna Nery Revista de Enfermagem. 2016; 20(1): 48-54. doi: 10.5935/1414 8145.20160007.
17. Castro, AS, Arboit EL, Ely GZ, Motta Dias CA, Arboit J, Camponogara, S. Percepções da equipe de enfermagem acerca da humanização em terapia intensiva. Revista Brasileira Em Promoção da Saúde, 32 (12): 47-49. http://dx.doi.org/10.5020/18061230.2019.8668.

18. Yin RK. Pesquisa Qualitativa do início ao fim [recurso; tradução: Daniel Bueno; revisão técnica: Dirceu da Silva. Porto Alegre: 2018.
19. Schwonke CRGB. Perspectivas filosóficas do uso da tecnologia no cuidado de enfermagem em terapia intensiva. Rev. Bras. Enferm, Brasília, 2018, 1(64):64,189-192. http://dx.doi.org/10.1590/S0034-71672011000100028.

20. Ferreira A, Santos T. O Uso das Tecnologias nas Unidades de Terapia Intensiva para Adultos pela Equipe de Enfermagem: Uma Revisão Integrativa. Revista de psicologia [Internet]. 2020; [cited 16 set. 2021]; 14(51): 250-261. Available from: https://idonline.emnuvens.com.br/id/article/view/2546/4108pdf.

21. Siqueira VRB. Contribuições da Tecnologia para Assistência de Enfermagem da Unidade de Terapia Intensiva. Revista Sustinere, [S.l.], 2019; 1(3): 19-21. http://dx.doi.org/10.12957/sustinere.2019.40086.

22. Da Silva AR, de Mattos M. Produção científica brasileira sobre as tecnologias biomédicas e segurança do paciente na UTI: revisão integrativa [Internet]. [cited 16 set.2021]; 6(1):25-31. Available from: https://periodicos.unemat.br/index.php/jhnpeps/article/view/4696

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Cancer patients during pregnancy and the feelings experienced

Pacientes oncológicos na gestação e os sentimentos vivenciados

Pacientes con cáncer durante el embarazo y los sentimientos experimentados

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REVISA

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RESUMO
Objetivo: Ações na terapia oncológica durante a gestação, e respectivamente seus sentimentos de medos vivenciados. **Método:** Revisão integrativa realizada de agosto a setembro de 2021 na Biblioteca Virtual em Saúde. Foram utilizadas as seguintes palavras chaves para a busca: circulação fetal AND gestação oncológica AND quimioterapia na gestação AND quimioterapia na gestação, neoplasias gravidez, câncer. **Resultados:** A gestação é o período mais marcante na vida da mulher, e com o diagnóstico de câncer irá promover um longo tratamento, podendo incluir quimioterapia. Gerando complicações durante a gestação, e promovendo sentimentos de medos. **Conclusão:** Pode-se concluir que o tratamento de neoplasia é fundamental para a gestante. Contudo promoverá sentimentos insalutíferos. Assim, necessitando de atenção e assistência da equipe multidisciplinar.
Descritores: Câncer na Gestação; Radioterapia; Gestação.

ABSTRACT
Objective Actions in cancer therapy during pregnancy, and respectively their feelings of fears experienced. **Method:** Integrative review carried out from August to September 2021 at the Virtual Health Library. The following key words were used for the search: fetal circulation AND oncological pregnancy AND chemotherapy during pregnancy AND chemotherapy during pregnancy, neoplasms pregnancy, cancer. **Results:** Pregnancy is the most important period in a woman's life, and a diagnosis of cancer will promote a long treatment, which may include chemotherapy. This generates complications during pregnancy, and promotes feelings of fear. **Conclusion:** It can be concluded that the treatment of cancer is fundamental for pregnant women. However, it will promote unhealthy feelings. Thus, requiring attention and assistance from the multidisciplinary team.
Descriptors: Cancer in Pregnancy; Radiotherapy; Pregnancy.

RESUMEN
Objetivo: Acciones en la terapia contra el cáncer durante el embarazo y, respectivamente, sus sentimientos de temores experimentados. **Método:** Revisión integradora realizada de agosto a septiembre de 2021 en la Biblioteca Virtual en Salud. Para la búsqueda se utilizaron las siguientes palabras clave: circulación fetal Y embarazo oncológico Y quimioterapia durante el embarazo Y quimioterapia durante el embarazo, neoplasias embarazo, cáncer. **Resultados:** El embarazo es el periodo más destacado en la vida de una mujer, y el diagnóstico de cáncer promoverá un largo tratamiento, que puede incluir quimioterapia. Generando complicaciones durante el embarazo, y promoviendo sentimientos de miedo. **Conclusión:** Se puede concluir que el tratamiento de la neoplasia es esencial para la mujer embarazada. Sin embargo, promoverá sentimientos poco saludables. Por lo tanto, necesita la atención y la asistencia del equipo multidisciplinar.
Descriptores: Cáncer en el embarazo; Radioterapia; Embarazo.

REVIEW

Introduction

Pregnancy is a unique period in a woman's life, marked by doubts and expectations, in addition to changes in the body, hormonal and/or behavioral changes.

Pregnant women diagnosed with cancer experience the dilemma created between ideal therapy for the mother and fetal well-being, which creates a challenging situation for the pregnant woman, fetus, family members and healthcare professionals involved, making the management challenging, delicate, whose conduct is often it generates difficulties and anxieties for the pregnant woman, since treatment is most often difficult, as the prognosis of the mother or fetus can be compromised.[1]

Cancer during pregnancy is a rare event, occurring around 0.001%, but it is the leading cause of death in women of childbearing age.2 The most common cancers in pregnant women are: breast cancer, cervical cancer, lymphomas, leukemias, cancer of the cervix, ovaries and melanoma.[2]

The adoption of the most effective treatment possible for the mother and the least toxic for the fetus must take into account the benefits and risks, since the choice is directly influenced by the gestational age, stage of the maternal tumor and possibilities of termination of pregnancy.[3]

In view of the facts presented, the following question arises: "What are the fears and characteristics of these experienced by women with a simultaneous diagnosis of cancer and pregnancy?"

Faced with the research problem, the following hypothesis emerges: "in the symbiotic relationship of the maternal-fetal binomial, the mother's fear prevails in relation to the development of the fetus, to her own health".

In this sense, this study aims to identify in the scientific literature the actions in cancer therapy during pregnancy, feelings and fears experienced in patients with simultaneous diagnosis of cancer and pregnancy.

Method

This is an integrative review, carried out from August to September 2021 through a literature review regarding cancer patients during pregnancy and their feelings highlighted.

For the construction of the integrative review, six distinct steps were followed: the identification of the theme and guiding question; establishment of inclusion and exclusion criteria for studies/sampling; definition of information to be extracted from selected studies/categorization of studies; evaluation of included studies; interpretation of results; and presentation of the review/synthesis of knowledge.[4]

In the selection of works, the databases of the Virtual Health Library (VHL) were accessed. The following keywords were used for the search: fetal circulation AND (la:("pt")), oncological gestation AND (la:("pt")), chemotherapy in pregnancy AND (la:("pt")), chemotherapy in pregnancy, pregnancy neoplasms, cancer.

Only scientific articles were selected to take part in the study (originals, systematized reviews, experience reports, essays and theoretical reflections); works whose abstract addressed the topic of health; available online, in Brazil,

and internationally, in complete form, in Portuguese and English that had related to cancer pregnancy, and their feelings. Exclusion and inclusion were applied, totaling 19 references as inclusion for integrative review.

Other types of publications were excluded, such as theses, dissertations, monographs, non-systematized bibliographic reviews, letters, reviews, editorials, books, book chapters, government publications and newsletters, as well as articles published in other media than the databases chosen; duplicate studies; studies available only upon payment; and that did not address the research object in a relevant way.

For the analysis, a thorough reading of the articles in full was carried out, with the purpose of verifying adherence to the objective of this study. To follow the guidelines of the integrative review, the articles were organized based on objectives, methodology, results and conclusion.

Results and Discussion

During pregnancy, the mother goes through many physical, hormonal and psychological changes, dealing with changes in mood, feelings and new sensations. When it involves a pathology such as cancer, such feelings are aggravated. Radiotherapy and/or Chemotherapy treatment is most often necessary, bringing risks to the fetus and the mother. For the Ministry of Health, cancer is considered gestational if detected during pregnancy or during lactation and up to one year after childbirth (Puerperium).[5]

Treatment with chemotherapy has evolution and effectiveness for curing cancer, but they have harmful effects for the pregnant woman and especially for the fetus. There is an ambivalence between life and death, promoting great emotional conflict for the mother. The most affected neoplasms in pregnant women are cervical cancer and breast cancer. The diagnosis of these neoplasms, if not early, makes it more difficult for a good prognosis, and pregnant women end up correlating the symptoms to the normal changes in pregnancy, confusing these symptoms, making the diagnosis be delayed. Also taking into account the investigative conduct itself and staging should be less invasive due to the damage to the fetus. Hence the importance of preventive exams and self-knowledge. The diagnosis of breast cancer must be done as primary self-examination, a method of visual and palpable diagnosis, in which the woman must observe any type of change such as breast contour, presence of folds, size, and skin changes. During pregnancy, a woman will have a great increase in the main circulating hormones, estrogens, progesterone, and prolactin, promoting breast enlargement and making it difficult to diagnose a possible neoplasm in pregnancy. Pregnancy diagnosed with cancer is considered high risk, so the fetus should receive regular fetal monitoring. Including umbilical artery Doppler and morphological US (ultrasonography).[6-8] It is important and fundamental to communicate with other women, so that the exchange of information and experiences of other oncological pregnant women can occur.

Whether treatment includes radiotherapy during pregnancy may differ according to the dosage used, together with the gestational age. It requires great attention and care, as we have Risk-Benefit. Risks include the generation of complications during pregnancy, abortion, neurological problems in the fetus, for example microcephaly (the most common), growth retardation, cognitive

and/or behavioral changes. The benefits are slowing the progression of the disease (cancer), and promoting a possible cure.[7]

Due to all complications, pregnant women are afraid to undergo treatment, and receive popular recommendations to avoid the use of radiotherapy during pregnancy and other myths. A multidisciplinary team acts in the treatment, care requires great attention from the team, since the use of anticancer drugs is harmful to the fetus, and pharmacokinetic studies are minimal. The harmful involvement to the fetus depends on the gestational age. The high fetal exposure and vulnerability occurs between 4 to 8 weeks of gestation, when it is in the process of fetal formation and development. During these weeks, the organogenesis process takes place, an embryonic development process in which the three terminative layers (ectoderm, endoderm and mesoderm) differentiate and give rise to the body's internal organs. With this development up to the eighth week, the fetus has arms, legs, eyes, nose, lips, heart (general organs). The cardiac part, the 8-week-old fetus has divided and distinct chambers, and starts at approximately 150 bpm. During treatment, chemotherapy can be classified into adjuvant, and neoadjuvant. An example of a neoplasm that uses the above classifications is breast cancer. Because depending on the progress of the disease, surgery may be needed, so adjuvant chemotherapy is after surgery, in order to eliminate micrometastasis, and neoadjuvant chemotherapy before surgery, in order to reduce the tumor.[7,9-10]

During treatment, the hematopoietic system, which is responsible for the production of blood cells, can undergo changes, and with placental transfer, it can promote problems with fetal integrity. Due to prolonged exposure with dosages. Thus, drug transfer to the fetus occurs through the placenta.[8,11]

The main chemotherapeutic drugs used are: Doxorubicin/Mitocin (with its use cases of microcephaly have been reported); Antimetabolics: Methotrexate (cases of cranial and skeletal abnormalities); and Mitoxantivone (there are no cases of abnormalities with its use). With some citations of medications for the treatment of neoplasms during pregnancy, it is shown that chemotherapeutics have therapeutic actions, which, according to the dosage and types, may present a greater or lesser degree of harmful action to the health and integrity of the fetus. Pregnant women can develop the risk of fetal prematurity. Pregnant women with cancer prognosis are rare cases, however they require care, increased assistance to prevail and maintain maternal-fetal well-being. Early diagnosis is adequate and cautious, especially hormonal. During the gestational process, we have the elevation of some hormones: corticotrophin, cortisol, estrogen, progesterone and T4, and some neurotransmitters serotonin, which can promote gestational depression, and Epinephrine/Adrenaline sensation/feeling of fear.[12,7].

During treatment, it is up to the nursing professional to impose comprehensive, multidisciplinary care actions for women diagnosed with cancer. Intensifying the continuous assessment, family/and woman participation in the management of the pregnancy, helping with the psychological aspects, and properly carrying out prenatal care. There are studies showing that pregnancy by itself does not worsen the progression of cancer. After pregnancy, attention should be paid to breastfeeding, as treatment with chemotherapy should be interrupted, as the presence of antineoplastic agents such as Methotrexate, Doxorubicin, Cisplatin in breast milk has been reported. It can cause serious problems for the newborn.[13,7,14]

Feelings Experienced

The feelings of women during pregnancy fluctuate and change, among these new sensations, we see fear and anxiety. When we associate it with cancer diagnoses, and pregnancy? Because they cause bad feelings, internal conflicts, imbalances and suffering. Acceptance and the way to deal with the prognosis is not easy, they are psychologically shaken, with a longing for what the future holds, it is an emotional shock, destabilizing, generating feelings of anger, anguish and depression, for example. Each woman will react in different ways, including creating defense mechanisms, for example the self-denial of the disease. Emphasizing that there are cases of pregnant women, with oncological diagnosis, being clear about the case, and choosing to become pregnant. Women in whom they had self-knowledge of contraceptive methods, and put aside their bad feelings (fear, anguish, self-denial of the disease), and performed family planning to maintain their own and fetal well-being.[15-16]

Pregnancy by itself is a difficult, contradictory, and intense phase, with countless changes occurring as mentioned. Mainly the psychic issue. The mother creates expectations/and possible image of her baby. In which, with the current situation of the discovery of the neoplasm, and its appropriate treatments (radiotherapy/and or chemotherapy), it ends up destroying these expectations, generating/and promoting the feelings mentioned above. Due to the fragility of the fetus, the mother is afraid to carry out the maternal-fetal bond, due to the possibility of the fetus having a short life span. Thus promoting another feeling for the pregnant woman, depression. Another vulnerability that pregnant women can suffer, and trigger depression, is suicide. It is widely demonstrated in the oncological literature that cancer is a risk factor for suicide. Citing other studies/literature citing suicide.[16,17-19]

Due to the treatment, the most common fetal complication is congenital malformation, causing a great impact on the pregnant woman. But after self-knowledge of the diagnoses, and generating such feelings, pregnant women perform/and develop self-control of fear, anxiety, achieving great fetal attachment. According to the following scale, fetal attachment data.[17-19]

Conclusion

Pregnancy is an important process for women, and there are few studies in the literature for an integrative review on the feelings of pregnant women about cancer. However, participation during diagnosis, the participation of the multidisciplinary team, during comprehensive care, including all stages of cancer, is essential. In addition to promoting care and physical care for pregnant women, we must provide social, educational, psychological care and support to offer maternal well-being.

It is concluded that any therapeutic action/treatment is essential, and fundamental for the patient. However, pregnant women have their differentials, in addition to dealing with the strong emotional impact, they must be aware (as well as the multidisciplinary team) of the advantages and disadvantages. Because treatment with chemotherapy can/and will be beneficial for the mother, and harmful for the fetus. Because self-knowledge of the treatment, emotional self-care is essential.

It is concluded that currently the main form of therapy for pregnant women is 'Oncology Surgery'.

The development of this research helps the multidisciplinary team working with diagnoses of cancer during pregnancy to understand the emotional dynamics of these women, to develop and carry out comprehensive and humanized care.

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References

1. Sato K, Shimamoto H, Mochizuki Y, Hirai H, Tomioka H, Shimizu R, Marukawa E, Fukayama H, Yoshimura R, Ishida H, Harada H. Treatment of oral cancers during pregnancy: a case-based discussion. Journal of Otolaryngology - Head & Neck Surgery. 2019;48(1):[7 screens]. Doi: https://doi.org/10.1186/s40463-019-0331-1

2. Garofalo S, Degennaro VA, Salvi S, De Carolis MP, Capelli G, Ferrazzani S, De Carolis S, Lanzone A. Perinatal outcome in pregnant women with cancer: are there any effects of chemotherapy? European Journal of Cancer Care [Internet]. 19 set 2016 [citado 30 nov 2021];26(6):e12564. Disponível em: https://doi.org/10.1111/ecc.12564

3. Hepner A, Negrini D, Hase EA, Exman P, Testa L, Trinconi AF, Filassi JR, Francisco RP, Zugaib M, O'Connor TL, Martin MG. Cancer During Pregnancy: The Oncologist Overview. World Journal of Oncology [Internet]. 2019 [citado 30 nov 2021];10(1):28-34. Disponível em: https://doi.org/10.14740/wjon1177

4. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. Texto Contexto Enferm. 2008 Out-Dez; 17(4): 758-64. Doi: https://doi.org/10.1590/S0104-07072008000400018

5. Sena L, Neves MGC. Os impactos psicológicos do diagnóstico e tratamento do câncer de mama em mulheres. Com. Ciências Saúde[internet]. 2019[citado em 20 jun 2021]; 30(1):19-28.Disponível em: http://repositorio.fepecs.edu.br:8080/jspui/bitstream/prefix/159/1/367-Outros-3561-1-10-20200719.pdf

6. Alquimim AF, Ladeia LSA, Rodrigues RK, Oliveira VB, Éscobar É GVF, Menezzi PTSD. Diagnóstico de câncer de mama na gestação: há dificuldades adicionais. Femina. 2011; 39(5):281-84

7. Schünemann Jr E, Urban C de A, Lima RS de, Rabinovich I, Spautz CC. Radioterapia e quimioterapia no tratamento do câncer durante a gestação - revisão de literatura. Rev. Bras. Cancerol. 2007;53(1):41-6.

8. Boldrini NAT, Rossi KKC, Sassine TOT, Borges Filho HZ, Frizera HC. Câncer do colo do útero na gravidez. FEMINA [internet]. 2019[citado 23 jun 2021];47(1): 55-60. Disponível em: https://docs.bvsalud.org/biblioref/2019/12/1046493/femina-2019-471-55-60.pdf

9. Coelho RCFP, Panobianco MS, Guimarães PRB et al. Tratamento quimioterápico adjuvante e neoadjuvante e as implicações na qualidade de vida mulheres com câncer de mama. Rev enferm UFPE on line. 11(11):4732-40. Doi: https://doi.org/10.5205/1981-8963-v11i11a231216p4732-4740-2017

10. Cieto JF, Santos LAC, Gozzo, TO. Câncer durante a gravidez: análise dos casos com ênfase nos resultados obstétricos e neonatais. Rev. enferm. Cent.-Oeste Min. 2021;11:e4096

11. Cavalli RC, Baraldi CO, Cunha SP. Transferência placentária de drogas. Rev Bras Ginecol Obstet. 2006; 28(9): 557-64. Doi: https://doi.org/10.1590/S0100-72032006000900009

12. Ferreira LRG, Spautz CC. Câncer de mama associado à gestação. FEMINA[internet]. 2014[citado em 20 jun 2021]; 42: 203-8.

13. Fernandes AFC, Santos MCL, Silva TBC, Galvão CM. O prognóstico de câncer de mama na gravidez: evidências para o cuidado de enfermagem. Rev. latinoam. enferm. (Online). 2011; 19(6): 1453-61. https://doi.org/10.1590/S0104-11692011000600024

14. Puzzi-Fernandes C. Cuidando de gestantes com câncer: experiência em serviço de referência. 2019. 73 p. Disponível em: https://1library.org/document/ye8gkg4y-cuidando-gestantes-experiencia-servico-referencia-pregnant-experience-reference.html

15. Vasconcelos L, Petean EBL. O impacto da malformação fetal: indicadores afetivos e estratégias de enfrentamento das gestantes. Psic. Saúde & Doenças[Internet]. 2009 [citado 2021 Nov 16]; 10(1): 69-82. Disponível em: https://www.redalyc.org/pdf/362/36219059006.pdf

16. Capelozza MLSS, Peçanha DL, Mattar R, Sun SY. A dinâmica emocional de mulheres com câncer e grávidas. Boletim- Bol. Acad. Paulista de Psicologia.2014; 34(86): 151-70.

17. Hem E, Loge JH, Haldorsen T, Ekeberg O. Suicide risk in cancer patients from 1960 to 1999. J Clin Oncol. 2004 Oct 15;22(20):4209-16. doi: https://doi.org/10.1200/JCO.2004.02.052

18. Medeiros ACR, et al. Sentimento materno ao receber um diagnóstico de malformação Congênita. Psicol. Estud. 2021; 26: e45012. Doi: https://doi.org/10.4025/psicolestud.v26i0.45012

19. Silva SS, Aquino TAA, Santos RM. O paciente com câncer: cognições e emoções a partir do diagnóstico. Rev. bras. ter. cogn[internet]. 2008[citado 2021 Nov 16]; 4(2): 73-89. Disponível em: http://pepsic.bvsalud.org/pdf/rbtc/v4n2/v4n2a06.pdf

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Health education for the prevention of uterus cancer resulting from HPV: a literature review

Educação em saúde para a prevenção de câncer do colo de útero decorrente do HPV

Educación sanitária para la prevención del cáncer de cuello uterino por HPV: uma revisión de la literatura

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RESUMO

Objetivo: analisar o que a literatura descreve a respeito da forma de transmissão, prevenção e rastreamento do HPV; os métodos de prevenção de câncer de Cólon relacionado ao HPV; bem como as ações educativas a respeito do HPV voltadas a adolescentes. **Método:** Trata-se de uma revisão integrativa da literatura. As pesquisas dos artigos foram feitas nas bases de dados SCIELO, BDENF, LILACS, MEDLINE, utilizando os descritores: Educação em saúde, Papilomavirus, Saúde do adolescente. Os critérios de inclusão estabelecidos na estratégia, foram de artigos originais, em português, disponível na íntegra e publicados entre 2016 a 2021. **Resultados:** Foram incluídos nesta revisão de literatura 12 artigos científicos. Com isso, emergiram-se três temas: Estratégia de prevenção relacionadas a transmissão de HPV; Detecção precoce do câncer do colo de útero; relação entre HPV e o câncer de colo de útero; esquema vacinal na prevenção primária contra o HPV. **Conclusão:** verifica-se que o câncer de colo de útero é um problema sério de saúde pública no Brasil, sendo também uma das principais causa de morte no mundo. É de fundamental importância o acompanhamento para detecção precoce, o que pode prevenir esta neoplasia.
Descritores: Educação em saúde; Papilomavirus; Saúde do adolescente.

ABSTRACT

Objective: analyze what the literature describes about the transmission, prevention and tracking of HPV; HPV-related colon cancer prevention methods; as well as educational actions about HPV aimed at adolescents. **Método:** this is a integrative review of the literature. At article searches were made in the database SCIELO, BDENF, LILACS, PUBMED, MEDLINE, REBEN using the keywords: health education, Papilomavirus, teen health. The Inclusion discretion established in the strategy were original articles in portuguese, available in full and published between 2016 to 2021. **Results:** Thirteen scientific articles were included in this literature review. With that, three topics emerged: prevention strategy related to HPV transmission; Early detection of cervical cancer; Relationship between HPV and Cervical Cancer; Vaccination scheme for primary prevention against HPV. **Conclusion:** cervical cancer is a public health problem in Brazil, being one of the leading causes of death in the world. It is of fundamental importance the effective screening for early detection, which can prevent neoplasia.
Descriptors: Health education; Papilomavirus; Adolescent health.

RESUMEN

Objetivo: analizar lo que describe la literatura sobre la transmisión, prevención y seguimiento del VPH; Métodos de prevención del cáncer de colon relacionados con el VPH; así como acciones educativas sobre VPH dirigidas a adolescentes. **Método:** Ésta es una revisión integradora de la literatura. Los artículos fueron buscados en las bases de datos SCIELO, BDENF, LILACS, MEDLINE, utilizando los descriptores: Educación en salud, Papilomavirus, Salud adolescente. Los criterios de inclusión establecidos en la estrategia fueron artículos originales, en portugués, disponibles íntegramente y publicados entre 2016 y 2021. **Resultados:** Se incluyeron 12 artículos científicos en esta revisión de la literatura. Así, surgieron tres temas: estrategia de prevención relacionada con la transmisión del VPH; Detección temprana del cáncer de cuello uterino; relación entre el VPH y el cáncer de cuello uterino; calendario de vacunación en prevención primaria contra el VPH. **Conclusión:** parece que el cáncer de cuello uterino es un grave problema de salud pública en Brasil, y también es una de las principales causas de muerte en el mundo. El seguimiento para la detección temprana es de fundamental importancia, lo que puede prevenir esta neoplasia.
Descritptores: Educación sanitária; Papilomavirus; Salud de los adolescentes.

REVISÃO

Introduction

Cervical Cancer (CC) is the fourth most common gynecological cancer in women in the world and the leading cause of death in developing countries.[1] In Brazil it is the second most frequent cancer among women, with the highest incidence rate in the North, Northeast and Midwest regions, while in the South and Southeast regions it occupies the fourth and fifth position.[2] Human papillomavirus (HPV) infection can cause cervical lesions and progress to cervical cancer, especially subtypes 16 and 18 that are present in 70% of cases of uterine cancer at high oncogenic risk.[3]

There are an estimated 570,000 new cases per year worldwide, reaching about 311,000 deaths. In females, it is the fourth type of cancer with the highest presence and the fourth leading cause of mortality worldwide. The incidence and mortality is more evident in developing and underdeveloped countries.[4]

In Brazil, in 2019 there were 6,596 deaths from neoplasia. In that year, of the deaths recorded by this disease, 5.33 deaths were detected in relative terms per group of 100,000 women. In 2020, 16,710 cases of CC were estimated, corresponding to approximately 15.38 death events per 100,000 Brazilian women.[5]

It was from the Pap smear studies in 1941 that the paptholithic examination emerged, which is used and recommended by the World Health Organization (WHO) as a simple and low-cost screening method, capable of detecting changes in pre-neoplastic phases. At this stage, healing can be achieved with relatively simple measures, reducing the worsening of cervical cancer.[6]

It is noteworthy that the evolution of this disease is "silent". In this sense, it is necessary to perform periodic preventive tests, in case of finding of the disease, medical treatment should be seek as soon as possible. And the determining factors of the high rate of CANCER OF CC is linked to the inefficiency of the Health System, mainly due to: the lack of adequate screening; the low efficiency of tracking programs; the difficulty of interpreting the reports by the majority of health professionals.[7,8]

The efficacy of CC treatment can be correlated with measures of interaction between the population and health professionals, who should be trained to know and treat symptoms. In addition, it is necessary to develop socio-educational practices, through clear messages, quick and facilitated access to health services.[9,10]

According to the WHO, some of the symptoms in the early stage related to cervical cancer are: increased vaginal discharge, sometimes smells bad, bleeding after intercourse. In the advanced stage, the symptoms are: persistent back pain, leg or pelvis pain, weight loss, loss of appetite and fatigue. Other related factors that lead to an increase in the rate of people infected with CC is: early initiation of sexual life, smoking and prolonged use of oral contraceptives, multiparity and immunosuppression.[11,3]

Cervical cancer, caused by the HPV virus (Human Papillomavirus), can be prevented through the use of condoms in sexual relations and vaccination, made available by the Public Health System. The Ministry of Health recommends that pap smears be performed regularly in women in order to diagnose possible manifestations of HPV and precancerous lesions.[12]

Transmission of the virus occurs through direct contact with contaminated skin or mucosa, causing genital warts and cancer-precursor lesions, predominantly those of the cervix and anogenital tract. The main form of contagion is through sexual intercourse, occurring even in the absence of vaginal or anal penetration. Continuing, there may be transmission from the mother to the fetus during childbirth. Also in this theme, there are people with HPV who are asymptomatic, unaware that they are carriers of the virus, potentiating transmission.[13]

With the aim of preventing cervical cancer and reducing the incidence of cancer mortality, the Ministry of Health, through the National Immunization Program (PNI), included in its calendar and implemented the quadrivalent vaccine (HPV-Q), which enables active protection against human papillomavirus types 6, 11, 16 and 18, its goal is to vaccinate 80% of the target population.[14]

What does the literature describe about the form of transmission, prevention and screening of HPV? What is known about HPV-related colon cancer prevention methods? What are the educational actions regarding HPV aimed at adolescents according to the scientific literature?

Thus, the objective of this study was to analyze what the literature describes regarding the form of transmission, prevention and screening of HPV; hpv-related colon cancer prevention methods; as well as educational actions regarding HPV aimed at adolescents.

Method

This is an integrative review of the literature conducted through scientific articles with exploratory qualitative approach, focused on the education and prevention of cervical cancer due to HPV. For the search for the selected articles, the following Descriptors in Health Science (DeCS) were used, followed by the Boolean operator "and": "Papillomavirus" (HPV) and "Health Education" and "Adolescent Health". The research was conducted through the Virtual Health Library (VHL), Latin American Literature on Health Sciences (LILACS), Nursing Database (BDENF), scientific electronic library online (SCIELO) and Medical Literature Analysis (MEDLINE).

When determining which studies would be included in this research, the identification of prominent questions was adopted, as well as the information to be extracted from each selected study, the method was started in the definition of the guide question, considered the most important phase of the review. In this phase, the following guide question was obtained: What does the literature prescribe about the form of TRANSMISSION, prevention and screening of HPV?

The inclusion criteria established were: articles published from 2016 to 2021, in Portuguese that answered the guide question. Exclusion criteria include: articles prior to 2016, indexed in more than one or duplicates on the same basis, review articles, monographs, as well as studies that did not present aspects that contributed to the objective of this study.

Researching the aforementioned databases and applying the inclusion and exclusion criteria, 35 articles were found in the VHL, 38 in LILACS, 34 in BDENF, 7 in SCIELO and 2 articles in the MEDLINE database, a total of 116 articles. After this, the titles and abstracts were read, reaching a number of 102, after a careful

reading, 12 articles were identified that corresponded to the objective of this review, these being the final sample.

Results

Among the studies included in this review, we highlight the type of study and the methodological strategy used. In this tuning point, five articles were observed that are quantitative studies, correlated with factors that influence the low result of adeforestation in cytopathological examinations; an article refers to qualitative analysis, with predominance of different levels of knowledge, doubts and erroneous conceptions; three are from cross-sectional studies, describing the lack of hpv prevention; one is based on scientific evidence, which points to public health problems, more specifically linked to sexually transmitted infection, being the most dominant in the world; and three are descriptive, which address the low aforeputand the reason for not performing the cytopathological examination.

In the underwritten table, the relevant information about the 12 articles contained in this integrative review is contained. The methodology that integrates its content helps the interpretation and synthesis of scientific papers, through comparison of the data evidenced in the analysis of the articles.

Table 1- Distribution of articles according to title, authors, objective, method, and year of publication. Brasília (DF), Brazil, 2021.

Title	Objective	Method	Conclusion	Year
Human papillomavirus (HPV) and its association between cervical and anal lesions in women	Evaluate the specific type association between cervical and annaic infections, as well as the cytopathological aspects of the annaic lesions by the HPV virus in women from São Luiz, Maranhão.	Cross-sectional analytical study with 27 women attended at the UFMA clinical research center between August 2012 and July 2015, through interviews and complementary exam achievements.	Cervical HPV infection is a risk-suggestive factor for the development of infection in the anal region.	2016
Knowledge, attitude and practice about the colpocytological examination and its relationship with the female age	To verify the association between the knowledge, attitude and practice of women in relation to the colpocytological examination and the age group.	This is a cross-sectional research associated with the knowledge, attitude and practice survey in a Primary Health Care Unit.	The study demonstrated a relationship between age group and knowledge, attitude and practice of colpocytological examination	2016
Factors associated with changes in cervical-uterine cytopathological examination in southern Brazil	To identify factors associated with changes in cervical-uterine cytopathological examination.	This is an analytical study with the participation of 390 women who presented cytopathological alterations in a municipality in the state of Paraná in the period of 2012.	Sociodemographic characteristics were determinant for high-risk lesions and development of cervical cancer, especially in women with low schooling and black or brown race/color.	2017

Practical Knowledge of the Cytopathological Examination of the Cervix among Academics from Different Areas	To verify the knowledge and coverage of cytopathological examination of the cervix among the academics in the health and human sciences and the reasons for not performing the test.	Descriptive study, with a quantitative approach, carried out with academics from the health and human sciences areas of a Higher Education Institution.	The main reasons for not performing the cytopathological examination, among the students, were the lack of time, not consulting gynecologists and not considering it important or not knowing the exam.	2017
Records of colpocytological examinations in family health strategies	In order to analyze the Record Books of the results of colpocytological examinations, 10 Family Health Units were selected	This is a descriptive, analytical, retrospective cross-sectional study and quantitative approach. The data collection period occurred during the first half of 2017.	It was observed the absence of standardization of the record regarding the results among the units analyzed, since considerable percentages of data without completion and information were seen for different aspects in the exams	2018
Knowledge and attitudes about human papillomavirus and vaccination	To unseethe knowledge and attitudes of girls, mothers, teachers and health professionals about human papillomavirus and vaccination.	Qualitative study, conducted through focus groups, in public elementary schools and health units of the Health District IV of Recife-PE, between June and July 2015.	Different levels of knowledge - doubts and misconceptions - on the subject were unveiled. However, attitudes were favorable to the adoption of immunization. Realities that need to be problematized in the nurse's educational practice.	2018
Immunization Against HPV of girls from Public and Private Schools: Evaluation on the knowledge of parents and guardians and adhering.	Verify the knowledge of parents or guardians of students aged 9 to 13 years of public and private schools in Araguari-MG about HPV, cervical cancer and forms of prevention and establish possible relationship between whether or not to include vaccination of daughters	The present study has a quantitative, descriptive and observational approach, constructed from data collection through the application of a structured questionnaire.	Therefore, it is clear that health education measures need to be implemented by educational managers and health professionals, thus raising awareness among the school community and the general population.	2018
Active search for increased pap smear test aveto	Describe the implementation of the active search for users as a strategy to	This is a mixed, descriptive and exploratory study, of the action research type, carried out	It is concluded that the active search of women for their screening is of great importance for early	2020

	increase papanicolau test support.	during the extension project entitled "Active search in the prevention of cervical cancer: strategies for increased papanicolaum test adhering"	diagnosis and improvement of the prognosis of CC, and there is a need to improve papanicolao's support.	
HPV infection - Diagnostic screening and conduct in HPV-induced lesions	The main objective of exceptional treatment is to rule out stromal invasion and assess the state of surgical margins	Content production is based on scientific evidence on the proposed theme and the results presented contribute to clinical practice	Wide population coverage through organized screening and vaccination may substantially decrease HPV-induced diseases	2021
Vaccination coverage against human papilloma virus (HPV) and associated factors in academics of a university in Goiás southwestern	To verify the coverage of the HPV vaccine in women enrolled in health courses at a university in the southwestern state of Goiás and the factors associated with vaccination.	This is a cross-sectional study, including university students from health courses, aged 18 years or older. A standardized and self-administered questionnaire was used.	The research revealed an extensive possibility for interventions with the objective of achieving greater vaccination coverage among university students.	2021
Vaccination coverage of the human papilloma virus in the Brazilian context. Health and environment	The objective of this study was to carry out health education actions on HPV prevention with vaccine administration for schoolchildren in the municipal public network of Belém-PA.	The action was the result of the extension project that implemented actions of Health Education and HPV vaccination action in Elementary and High Schools in the municipality of Belém-PA, with methodology based on problematization through the Maguerez Arc Model.	Actions that link health education and vaccination strategies tend to have greater engagement of the target audience. In-depth knowledge tends to provide greater support for an effective and safe form of prevention such as the vaccine.	2021
Brazilian Protocol for Sexually Transmitted Infections 2020: human papillomavirus (HPV) infection	Epidemiological and clinical aspects are presented, as well as guidance for managers and health professionals in the diagnosis, treatment and prevention of HPV infection.	This document was prepared on the basis of scientific evidence and validated in discussions and consensus among experts	This theme represents an important public health problem, since this sexually transmitted infection is the most prevalent in the world, capable of triggering the oncogenic process of cervical cancer, besides enabling the occurrence of anogenital warts.	2021

Discussion

After the analysis of the articles included in this research, it was possible to group the results into three thematic categories: prevention strategy related to HPV transmission; early detection of cervical cancer; relationship between HPV and cervical cancer; and vaccination regimen in primary HPV prevention.

Prevention strategy related to HPV transmission: Early detection of cervical cancer

Infections caused by HPV are predominant in adolescence, with a higher prevalence in the first years of sexual activity in the Health System, the coverage of cytopathological examination is still low, even knowing its benefits. Its periodic performance would be the best strategy for cervical cancer screening.

When compared to people aged in adolescence with the group of adult women, screening tests in the second age group reach the lowest frequency. Therefore, it is recommended to direct education projects related to CC, with the purpose of disclosing the importance of cytopathological examination, promoting the use of condoms, informing the need to know sexual partners and thus reducing or eliminating the incidence of cervical cancer.[16]

Sexual activity is the main form of HPV transmission, and may occur through oral-genital, genital-genital, manual-genital or delivery contact.

Infected people are usually asymptomatic, produce no clinical or subclinical manifestations, and their latency period can last for months to years. However, 1% to 2% of infected people develop anogenital warts and 2% to 5% experience changes in oncopherical colpocytology. It should be noted that the person infected with a certain viral type of HPV does not prevent them from acquiring other types of contamination of this disease, and multiple infections may occur. [17]

To detect cancerous lesions early, the diagnosis is made from the completion of the preventive examination (Pap smear). The Unified Health System (SUS), through its public equipment (health centers, hospitals, UBS, etc.) offers free collection of gynecological preventive tests. Therefore, it is essential to recognize that in the adolescence phase it needs to be aware of the importance of the examination for the early detection of CC and also clearly information about the etiology of the disease.[18]

It is understood that in the control, prevention and diagnosis, nursing professionals assume an active role in encouraging gynecological examinations. It is noteworthy that nurses should be able to assume responsibility for performing the Pap smear test and educational actions on site, seeking to find ways to prevent CC and other types of cancer. Nurses should implement strategies to approach the patient, promote a friendly environment, stimulate connections between health professionals and clients in order to expand papanicolaou test adem.[19]

Lack of prevention is one of the main causes of the appearance of these neoplasms mainly in women. This indicates that this public is not preventing itself in the appropriate way, through vaccine and preventive gynecological tests. It was observed during the research that the reasons that interfere negatively in the performance of the cytopathological examination, often is the lack of time,

the fear of the results and the shame. However, the non-performance of the test, if the disease is present, makes the diagnosis late, causing a lower chance of cure.[20]

In case of cc, it is recommended that the patient reundergo the Pap smear at an interval of one year, if he obtains the negative result for cancer cells, with two consecutive normal tests and without alterations, he may then have an interval of three years. The sample to be considered satisfactory should have a sufficient amount of well-distributed, fixed and corthed cells so that it has a good visualization and thus achieves the correct completion of the diagnosis. Finally, the responsible professional will decide whether the sample is satisfactory observing the conditions, such as anatomical limitations, age, menstrual cycle and examination objective. [21]

Relationship between HPV and Cervical Cancer

Cervical cancer is one of the most frequent caused by persistent HPV infection by oncogenic types. The main feature, after infection with HPV, is the abnormal growth of cells of the cervix. If the immune system is not able to fight the virus, the evolution of these abnormal cells occurs.

Thus, if not diagnosed and treated early, these abnormal cells may progress from a pre-cancer injury to a cancer. Most HPV infections are asymptomatic with slow progression until they present symptoms such as vaginal bleeding, discharge, and pain. This infection is more common in adolescents and adult women, with a peak prevalence in the first years of sexual activity.[16]

Lesions related to viral types with low oncogenic risk are usually low-grade squamous lesions, similar to the histopathological diagnosis of mild dysplasia or Cervical Intraepithelial neoplasia (CIN-1). Therefore, high-risk ONCOGENIC HPV infection is usually associated with high-grade squamous intraepithelial lesions and the histopathological diagnosis of cin 2 or CIN 3 intraepithelial neoplasia and in situ adenocarcinoma (AIS). In addition to the cervix, other epitheliums are able to suffer this oncogenic action by the HPV virus, causing vaginal, vulvar, perian, penile and annal intraepithelial neoplasms.[22]

HPV contamination has a reduction by the immune response of the host, its progression is 80% in 16 months, especially in cases of infection by oncogenic types of the virus. However, 3% to 10% of infected women progress to a persistent infection over the years, forming a risk factor for invasive epithelial neoplasia. In general, this process begins with a phase of preinvasive diseases, with changes restricted to the layers of the epithelium, which diagnosed and treated early allow the cure.[23]

Vaccine regimen in primary HPV prevention

Preventive HPV vaccination should be done before puberty, in adolescence, is currently one of the main preventive factors of CC. Its main objective is to reduce the number of infections, the costs of diagnosis and their treatment. As stated earlier, the phase of best efficacy is located in young people who have not started sexual activity. The inclusion of the HPV vaccine in the national

adolescent vaccination calendar represents a public health strategy to strengthen actions to prevent cervical cancer.[24]

Vaccination in adolescence is offered free of charge in basic health units and in public and private schools. The vaccination campaign takes place gradually. In 2014, the target population of vaccination was directed to female adolescents aged 9 to 13 years who did not start sexual activity, and from 2017 male adolescents were also included in immunization. The vaccine is offered in this age group, before exposure of the virus, due to its high efficacy and its higher production of antibodies, found in the infection naturally acquired within two years.[25]

Parents' ignorance about HPV is one of the main factors contributing to low vaccination of children and pre-adolescents, aged 9 to 13 years, which is the target audience, because it is at this stage that the level of antibodies provided by vaccination is higher than the natural immunity produced by HPV infection.[24-25]

Full information about the vaccine can promote well-being related to health, quality of life in the transition from adolescence to adulthood. It should be emphasized that the use of HPV vaccines should not replace other forms of protection, such as condom use and routine gynecological tests, since vaccines do not prevent all types of cancerous HPV.[26]

The objective of the PNI is to achieve the vaccination coverage of the first and second dose of at least 80% to achieve the goal of reducing the incidence of this cancer in the coming decades in the country. Vaccination, together with preventive examination (Pap smear), is complemented as actions to prevent this cancer, with the possibility of reducing transmission.[27]

Final Considerations

By performing this study, it was found that most scientific studies report that cervical cancer is a public health problem in Brazil and worldwide, being one of the main causes of death. Thus, effective screening for the early detection of this infection is of fundamental importance, avoiding cellular changes that may evolve to cancer. If diagnosed and treated early, it reduces morbidity and mortality, so it is necessary to perform periodic preventive examination (Pap smear).

In principle, the importance of primary treatment and prevention of cervical cancer is observed, reducing the risk of papillomavirus (HPV) contagion. Thus, campaigns are carried out that include health interventions such as vaccination in adolescents and the use of condoms in sexual relations. HPV vaccination is the first step in reducing cases of cervical cancer.

We conclude that the investment in health education, targeting children and pre-adolescents, from 9 to 13 years old, is the best way to combat HPV, due to the development of antibodies in this age group. This reinforces the need for vaccination. As well as, the performance of health professionals, especially nurses, with the objective of establishing a link between public equipment (UBS, UPA, hospitals, etc.), their agents and society (family entities), with the focus of involving adolescents and raising awareness of the need for vaccination and condom use during sexual intercourse.

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References

1-Organização Mundial da Saúde, Worl health Organization (Brasil).[internet] Cervical câncer. WHO; 2019. [citado:20 nov 2021] Disponível em:https://www.who.int/cancer/prevention/diasudoestegnosis-screening/cervical-cancer/en/

2 -Instituto Nacional do Câncer (Brasil). Estimativa 2020: incidência de câncer no Brasil. (Brasília, DF). INCA, 2019.[citado:13 nov 2021] Disponível em:https://www.inca.gov.br/publicacoes/livros/estimativa-2020-incidencia-de-cancer-no-brasil

3 –Núcleo teles saúde NUTES PE (Brasil). Qual a relação entre HPV e câncer do colo do útero? [internet]. (Brasília, DF) NUTES PE, 2019.Disponível em: https://aps.bvs.br/aps/qual-a-relacao-entre-hpv-e-cancer-do-colo-do-utero/ Último acesso:29 ago. 2021

4 – Organização Mundial da Saúde, Worl health Organization (Brasil) Câncer hoje [internet]gco.iarc.fr. citado [31 agosto 2021] disponível em:https://gco.iarc.fr/today/home

5 – Instituto Nacional De Câncer José Alencar Gomes Da Silva (INCA). Estimativa 2020**:** incidência do Câncer no Brasil. Rio de Janeiro: INCA, 2019. Disponível em: https://www.inca.gov.br/sites/ufu.sti.inca.local/files//media/document//. Último Acesso em: 12 maio 2021

6. Instituto Nacional De Câncer José Alencar Gomes Da Silva (INCA). Detecção precoce. INCA 2021. Disponível em: https://www.inca.gov.br/en/node/1194

7 –Renna NL, Silva GA e. Tendências temporais e fatores associados ao diagnóstico em estágio avançado de câncer do colo uterino: análise dos dados dos registros hospitalares de câncer no Brasil,2000-2012 Epidemiologia e Serviços de Saúde2018[citado:08 nov 2021];27(2).. Disponível em:https://www.scielosp.org/article/ress/2018.v27n2/e2017285/

8 – Rodrigues M, Moraes M de. Exame citopatológico do colo uterino: descrição dos principais indicadores em um município nordestino. Revista Ciência Plural[internet] 2020 ;6(3):108–22; [citado:25 out 2021] Disponível em: https://periodicos.ufrn.br/rcp/article/view/20698

9 – Tiensoli SD, Felisbino-Mendes MS, Velasquez-Melendez G. Avaliação da não realização do exame Papanicolaou por meio do Sistema de Vigilância por inquérito telefônico. Revista da Escola de Enfermagem da USP[internet]. 2018 Nov 23;52(0)[citado:08 nov 2021. Disponível em:https://www.scielo.br/j/reeusp/a/7C6FcYZ68xHRQRhDD3kyCTy/?lang=pt&format=pdf

10-Teixeira Boa Sorte Fernandes E, Rosendo do Nascimento E, Ferreira SL, de Almeida Cardoso Coelho E, Rangel da Silva L., Oliveira de Jesus Pereira. Prevenção do câncer do colo uterino de quilombolas à luz da teoria de Leininger. Revista Gaúcha de Enfermagem [online]. 2018, v. 39, e2016-0004. [citado 08 nov 2021] Disponível em: <https://doi.org/10.1590/1983-1447.2018.2016-0004>.Epub 28 maio 2018. Disponível em: https://www.scielo.br/j/rgenf/a/HJKgbgy7Y5p8j6Rw5Rh37jC/?lang=pt#

11 – HPV e o câncer de colo do útero-OPAS/OMS|Organização Pan-Americana da saúde [online]..2018. oct:13[citado 16 set 2021] Disponível em: https://www.paho.org/pt/topicos/hpv-e-cancer-do-colo-do-utero

12 – Organização Mundial da Saúde. Câncer[internet] [citado01 de abril 2021] disponível em: https://www.who.int/es/news-room/fact-sheets/detail/cancer.

13 – INCA Instituto Nacional de câncer (ministério da saúde) 09/08/2021 Como os HPV são transmitidos. Disponível em: https://www.inca.gov.br/perguntas-frequentes/como-os-hpv-sao-transmitidos Último acesso em: 15 Set 2021

14 – Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Coordenação-Geral do Programa Nacional de Imunizações. Informe técnico da ampliação da oferta das vacinas papilomavírus humano 6, 11, 16 e 18 (recombinante) - vacina HPV quadrivalente e meningocócica C (conjugada) [Internet]. 2018 [acessado em 05 abril 2021]. Disponível em: <https://portalarquivos2.saude.gov.br/images/pdf/2018/marco/14/Informe-T--cnico-HPV-MENINGITE.pdf>.

15 – Marques T da S, Tavares SJCR, Lauar JA de G, Longo C da S, Siqueira R. HPV e a prevenção do câncer de colo de útero em Porto Seguro-BA. Revista De Saúde Dom Alberto [Internet]. 30 de dezembro de 2018 [citado em 25 de out de 2021]; 3 (2): 48–62. Disponível em: http://revista.domalberto.edu.br/index.php/revistadesaudedomalberto/article/view/56/43

16 – Oliveira AK, Jacyntho CM, Tso FK, Boldrini NA, Speck NM, Peixoto RA, et al. Infecção pelo HPV – Rastreamento, diagnóstico e conduta nas lesões HPV-induzidas. Femina.2020;49(3):166-72.[citado:02 março de 2021] Disponível em: https://docs.bvsalud.org/biblioref/2021/05/1224082/femina-2021-493-p166-172-infeccao-pelo-hpv-rastreamento-diagno_yCxEoCJ.pdf

17 – Carvalho NS de, Silva RJ de C, Val IC, Bazzo ML, Silveira MF,et al Protocolo Brasileiro para Infecções Sexualmente Transmissíveis 2020: infecção pelo papilomavírus humano (HPV).Epidemiologia e serviço de saúde, Brasilia,[internet]2021;30(Esp.1)e;2020790,2021.[citado:20 nov 2021] Disponível em:https://www.scielo.br/j/ress/a/xLM3FTG5mnTM8kHT7b8HLpn/?format=pdf&lang=pt

18 – Silveira NSP, Vasconcelos CTM, Nicolau AIO, Oriá MOB, Pinheiro PNC, Pinheiro AKB. Conhecimento, atitude e prática sobre o exame colpocitológico e sua relação com a idade feminina. Rev. Latino-Am. Enfermagem. [internet] 2016; 24:2699[citado:02 março 2021] Disponível em http://www.scielo.br/pdf/rlae/v24/pt_0104-1169-rlae-24-02699.pdf

19 – Maciel N de S, Luzia FJM, Ferreira D da S, Ferreira LCC, Mendonça V de M, Oliveira AWN,et al. Busca ativa para aumento da adesão ao exame Papanicolau Rev enferm UFPE on line.2021;15:(1)e245678 [citado:20 nov 2021]Disponível em: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/245678

20 – Grando AS, Rosa L da Bortoluzzi EC. Baruffi LM, Doring M.et al. Conhecimento e prática do exame citopatológico de colo uterino entre acadêmicas de diferentes áreas Rev enferm UFPE on line. 11(Supl. 8):3206-13, ago., 2017[citado:21 nov 2021]. Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/bde-33223

21 – Hartmann LIPP, Araújo BE, Bazzano ABRM, Castro LS, Oliveira JCDS, Castro LS. Registros dos exames colpocitológicos nas estratégias de saúde da família. Revista Univap.[internet] 17º de dezembro de 2018;24(46):61-73.[citado:25 out 2021] Disponível em:http://revista.univap.br/index.php/revistaunivap/article/view/1995

22 –Melo WA de, Pelloso SM, Alvarenga A, Carvalho MD de B. Fatores associados a alterações do exame citopatológico cérvico-uterino no Sul do Brasil. Revista Brasileira de Saúde Materno Infantil.[internet] 2017 ;17(4):637–43.[citado: 21 nov 2021]Disponível em: https://www.scielo.br/j/rbsmi/a/rr8TbgJSFrcLhRPgXM65Gzw/?lang=pt&format=pdf

23 – Brito LMO, Chein MB da C, Monteiro SCM, Corrêa R da GCF, Oliveira MMHN de, Silva FRS, et al. Papiloma vírus humano (HPV) e sua associação entre lesões cervical e anal em

mulheres. J Health Biol Sci.(online) 2016 Jul-Set; 4(3):174-180. [citado em 20 nov 2021]Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-876852

24- Oliveira PS de, Gonçalves CV, Watte G, Costa JSD da. Cobertura vacinal contra papiloma vírus humano (HPV) e fatores associados em acadêmicas de uma universidade do sudoeste goiano. Revista de Saúde Pública [Internet]. 8 de novembro de 2021 [citado:24 de nov de 2021]; 55. Disponível em: https://www.scielo.br/j/rsp/a/cNJ4M3nmTfBRWwfNGZ7StVJ/?lang=pt

25 – Silva PMC, Silva IMB, Interaminense IN da CS, Linhares FMP, Serrano SQ, Pontes CM. Conhecimento e atitudes sobre o Papilomavírus humano e a vacinação, Esc Anna Nery[internet] 2018;22(2):e20170390;[citado:21 Nov 2021] Disponível em;https://www.scielo.br/j/ean/a/R4HvzH5Lsx76nv3jNN4S4VC/?lang=pt#

26 – Sicari DA, Hermann A, Linhares LA, Rodrigues IG, Borela IC, Resende LG, et al. Imunização contra HPV de meninas de escolas públicas e privadas. Revista Master Ano 2018 | Vol. 3. | N.5 | 29-36[citado:21 nov 2021] Disponível em: https://revistamaster.imepac.edu.br/RM/article/view/28/10

27– Moro A, Santos CL, Couto MP de, Ávila LB de,Ditterich RG, Mazon LM. Coberturas vacinais do papiloma vírus humano no contexto brasileiro. Saúde e meio ambient.: rev.Interdisciplinar [internet]. 2017 ;6(2):124-32.[citado: 01 nov 2021] Disponível em: http://www.periodicos.unc.br/index.php/sma/article/view/1528

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Effectiveness of Chlorexidine in Bucal Hygiene for the Prevention of Pneumonia Associated with Mechanical Ventilation

Eficácia da Clorexidina na Higiene Bucal para Prevenção de Pneumonia Associada a Ventilação Mecânica

Eficacia de la Clorhexidina en la Higiene Bucal para la Prevención de Neumonía Asociada a la Ventilación Mecánica: Revisión Narrativa

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RESUMO

Objetivo: Analisar as evidências disponíveis sobre a eficácia da clorexidina na higiene bucal para prevenção de pneumonia associada a ventilação mecânica (PAVM). **Método:** estudo de revisão de literatura, tipo narrativa, no qual foram avaliadas as publicações referentes ao período de 2008 a 2021, indexados na Biblioteca Virtual em Saúde (BVS) no State National Library of Medicine (PubMed/MEDLINE). **Resultados:** Seleção de 18 artigos, categorizados em duas amostras de acordo com o controle do biofilme bucal, classificados em nível de evidência e sumarizados. **Conclusão:** Apesar das pesquisas sobre os cuidados orais e PAVM serem abundantes, existe uma falta de consenso em relação a frequência, aos dispositivos mecânicos e a concentração da clorexidina. Quanto ao controle químico, a clorexidina, seja na forma de gel ou como enxaguante nas concentrações de 0,12% ou 0,2%, administrados a cada doze horas reduziram a ocorrência da PAVM. Enquanto os métodos mecânico/químico mais adequados são aqueles que oferecem a escovação associada a sucção, em um mesmo dispositivo, seja escova ou esponja de sucção, ambas associadas ao uso da clorexidina.
Descritores: Clorexidina; Higiene Bucal; Unidade de Terapia Intensiva.

ABSTRACT

Objective: to analyse the available evidences on the efficacy of chlorhexidine in oral hygiene aiming to prevent cases of ventilator-associated pneumonia (VAP). **Method:** study of literature review, narrative type, in which papers from 2008 to 2021, published in the Virtual Health Library (VHL) in the State National Library of Medicine (PubMed/MEDLINE) were analysed. **Results:** Selection of 18 papers, categorized in two samples according to the control of oral biofilm, then classified by level of evidence and summarized. **Conclusion:** In spite of research on oral care and VAP being plenty, it lacks consensus regarding mechanical devices and concentration of chlorhexidine. As for chemical control, chlorhexidine, whether given as gel or mouthwash in concentration levels of 0.12% or 0.2%, being given every twelve hours, has decreased the ocurrence of VAP, while the most suitable mechanical/chemical methods are those that provide brushing and succion in the same device, whether by brush or suction sponge, both associated with the use of chorexidine.
Descriptors: Chlorhexidine; Oral Hygiene; Intensive Care Unit.

RESUMEN

Objetivo: analizar las evidencias disponibles sobre la eficacia de la clorhexidina en la higiene bucal para prevención de neumonía asociada a ventilación mecánica (NAVM). **Métodos:** estudio de revisión de la literatura, tipo narrativa, en el cual fueron evaluadas las publicaciones que hacen referencia al periodo de 2008 a 2021, indexados en la Biblioteca Virtual en Salud (BVS) de la Biblioteca Nacional Estatal de Medicina (PubMed/MEDLINE). **Resultados:** Selección de 18 artículos, categorizados en dos muestras de acuerdo con el control de biopelícula oral, clasificados por nivel de evidencia y sumariados. **Conclusión:** A pesar de que las investigaciones sobre los cuidados orales y NAVM son abundantes, hay una falta de consenso en lo que concierne a la frecuencia, los dispositivos mecánicos y la concentración de clorhexidina. Respecto al control químico, la clorhexidina, sea en la forma de gel sea como enjuague en las concentraciones de 0,12% o 0,2%, administrados a cada doce horas redujeron la ocurrencia de NAVM. Mientras los métodos mecánicos/químicos más adecuados son los que ofrecen el cepillado asociado a la succión, en un mismo dispositivo, por cepillo o esponja de succión, ambos asociados al uso de clorhexidina.
Descritptores: Clorhexidina; Higiene Oral; Unidad de Terapia Intensiva.

REVIEW

Introduction

Ventilatory-associated pneumonia (VAP) is defined as that which develops within 48 hours of starting mechanical ventilation (MV) and up to 48 hours after extubation. It is an infectious disease of inaccurate and multicausal diagnosis. It is one of the most common infections in Intensive Care Units (ICU), and are related to increased hospitalization time, increased morbidity and increased mortality, which significantly affects hospital costs.[1-3]

These bacterial colonization sits responsible for 15% of health care-related infections-IRAS and approximately 25% of all infections acquired in ICUs. The lower respiratory tract inoculation, at first sterile, routinely occurs by aspiration of secretions, colonization of the aerodigestive tract or the use of contaminated equipment or medications. The development of biofilm is a natural process commonly found on the surfaces of the teeth and on the back of tongue. Risk factors for VAP include prolonged intubation, enteral feeding, witnessed aspiration, paralyzing agents, underlying diseases, and age extremes.[4-7]

Considering that the microbiota of the oral cavity poses a threat to critically ill patients, some strategies to prevent colonization have been studied, such as the application of non-absorbable topical antibiotics. Although research on oral care and VAP is abundant, there is a lack of consensus regarding the technique, frequency, choice of pharmacological agent and its concentration.[6-9]

The nursing team is responsible for oral care in mechanically ventilated patients. The implementation of effective prophylactic measures are the basis for the prevention of this pneumonia, which is considered a serious pathology. In this sense, nurses should, together with the multidisciplinary team, provide continuous care to patients with complex and high-risk clinical conditions.[31]

In view of the above, we seek in evidence-based practice the theoretical framework to support this study, since its approach provides the systematic application of scientific evidence available for the evaluation of options and decision-making in the comprehensive care of the patient.[6]

In this sense, the aim of this study was to analyze the available evidence on the efficacy of chlorhexidine in oral hygiene for prevention of pneumonia associated with mechanical ventilation.

Method

This is a narrative literature review study, in which one can synthesize and summarize the information found in bibliographic research that was published in the period corresponding to the years 2008 to 2021.

As bases de dados utilizadas nas pesquisas foram: Medline, Lilacs e Pubmed. Using the descriptors of the virtual health library: Chlorhexidine, oral hygiene and intensive care unit. Data were collected in March 2019. Complete original articles, published in a nursing journal, in the Portuguese and English that addressed the theme of the study, are included. 18 articles were identified. Which were read in full, summarized and summarized for further discussion.

In the collection of bibliographic data, a form was applied that extracted from the articles important information such as objective, methodology, type of research, results, conclusions and level of evidence. The classification of the level

of evidence was performed based on the literature using evaluation criteria established between one and seven.[9-10]

• Level of evidence 1: resulting from systematic review or meta-analysis of randomized controlled trials;
• Level of evidence 2: evidence derived from at least one well-designed randomized controlled trial;
• Level of evidence 3: well-delineated clinical trials without randomization;
• Evidence level 4: well-delineated cohort and control case studies;
• Level of evidence 5: originating from a systematic review of descriptive and qualitative studies;
• Level of evidence 6: derived from a single descriptive or qualitative study;
• Level of evidence 7: from the opinion of authorities and/or report of expert committees.

Results

The study sample generated two thematic categories, which will be presented below:
• Chemical control of oral biofilm:
Of the eighteen articles contained in the sample, eight (44.4%) showed the use of Chlorhexidine at different concentrations in the prevention of VAP.
• The mechanical and chemical control of oral biofilm:
Of the eighteen articles contained in the sample, ten (55.5%) showed the use of Chlorhexidine associated with mechanical removal devices in the prevention of VAP.

As shown in Table I, we observed the main information extracted from the selected articles related to the chemical and mechanical/chemical use of chlorhexidine in the prevention of VAP, distributed according to nursing practices, classified according to publication, design, level of evidence (NE) and interventions performed.

Table 1 - Distribution of nursing practices related to oral biofilm control, classified according to publication, design, evidence level (EL) and interventions performed. 2021

Nursing Practice	Authors/Title/Country/Year of publication	Design	EL	Intervention
Dental biofilm chemical control	Souza AF, Guimarães AC, Ferreira EF. Evaluation of the implementation of new protocol of oral hygiene in an intensive Care center for prevention of pneumonia associated with mechanical ventilation. Brazil, 2013.[12]	Experience Report	6	Replacement of 0.05% cetylpyritinichloride solution with 0.12% chlorhexidine solution
	Guimarães GR, Queiroz APG, Ferreira ACR. Establishment of a Protocol of Oral Hygiene in Hospitalized Patients in the ICU of Husf.Brazil, 2016.[13]	Prospective study	4	Chlorhexidine at 0.12% of 12/12H (PerioPlak,REYMER)
	Chen Y, Mao E, Yang Y, Zhao S, Zhu C, Wang X, Jing F, Sheng H, Zhu C, Wang X, Jing F, Sheng H. Prospective Observational Study To Compare Oral	Prospective study	4	Metronidazole 0.08 every 12hours X Chlorhexidine 0.2% 12/12H

	Topical Metronidazole Versus 0.2% Chlorhexidine Gluconate To Prevent Nosocomial Pneumonia. China, 2016.[14]			
	Bosca I, Berar C, Marincean AM, Petrisor C, Ionescu D, Hagau N. The Impact of 0.5% Chlorhexidine Oral Decontamination on the Prevalence of Colonization and Respiratory Tract Infection in Mechanically Ventilated Patients. Preliminary Study. Romênia, 2013.[15]	Cohort study	4	Chlorhexidine 0.5% 6/6H X 12/12H
	Tang H, Chao C, Leung P, Lai C. An Observational Study to Compare Oral Hygiene Care With Chlorhexidine Gluconate Gel Versus Mouthwash to Prevent Ventilator-Associated Pneumonia.Taiwan, 2017. [16]	Prospective study	4	Mouthwash with 0.2% Chlorhexidine 3 times a day X 0.2% Chlorhexidine Gluconate gel 3 times a day
Mechanical and chemical control of dental biofilm	Cabov T., Macan D., Husedžinović I., Skrlin-Šubić J. Sestan-Crnek S., Perić B., Kovač Z., Golubović V. The impact of oral health and 0.2% chlorhexidine oral gel on the prevalence of nosocomial infections in surgical intensive-care patients: a randomized placebo-controlled study. Croácia. 2010.[17]	Double-blind randomized clinical trial	2	Chlorhexidine gel 0.2% 3 times a day X Placebo Gel 3 times a day.
	Chlorhexidine decreases the risk of ventilator-associated pneumonia in intensive care unit patients: a randomized clinical trial. Turkey. 2012. [18]	Double-blind randomized clinical trial	2	Saline solution 4 times a day X chlorhexidine 0.12% 4 times a day
	Triamvisit S., Maneewan C., Bunturat P., Wongprasert W., Limpassatan K., Kasatpibal N., Euathrongchit J. Results of an Evidence-Based Care Bundle for Reducing Ventilator-Associated Pneumonia (VAP) in Neurosurgical Patients. Thailand. 2016. [19]	Prospective study	4	Chlorhexidine 0.12% 4 times a day
Mechanical and chemical control of dental biofilm	Vidal CFL, Vida KL, Monteiro JGM, Cavalcanti A, Trindade AP, Oliveira M, Godoy M, Coutinho M, Sobral PD, Dutra P, Vilela BG, Leandro MA, Montarroyos U, Ximenes RA, Lacerda H. Impact of Oral Hygiene Involving Toothbrushing Versus Chlorhexidine in the Prevention of Ventilator-Associated Pneumonia: A Randomized Study. [20]	Prospective, randomized study	2	0.12% clx solution every 12 hours X Toothbrush and clx gel 0.12% every 12 hours
	Chacko R, Rajan A, Lionel P, Thilagavathi M, Yadav B, Premkumar J. Oral Decontamination Techniques and Ventilator-associated Pneumonia. India, 2017. [21]	Double-blind randomized clinical trial	2	Sponge with CLX 0.2%, 3x per day X toothbrush, Yankauer disposable suction catheter and a disposable syringe. 0.2% chlorhexidine gluconate
	Chacko R, Rajan A, Lionel P, Thilagavathi M, Yadav B, Premkumar J. Oral Decontamination Techniques and Ventilator-associated Pneumonia. India, 2017. [21]	Double-blind randomized clinical trial	2	Sponge with CLX 0.2%, 3x per day X toothbrush, Yankauer disposable suction catheter and

				a disposable syringe. 0.2% chlorhexidine gluconate
	Conley P, McKinsey D, Graff J, Ramsey AR. Does an Oral Care Protocol Reduce Vap in Patients With a Tracheostomy? United States, 2013. [22]	Prospective study	4	Brushing with toothpaste and applying Chlorhexidine Gluconate solution 0.12% every 12 hours
	Cutler RL, Sluman P. Reducing ventilator associated pneumonia in adult patients through high standards of oral care: A historical control study. England, 2014. [23]	Historical Control	4	Brushing with toothpaste and 1% chlorhexidine.
	Munro CL, Grap MJ, Jones DJ, Deborah J, McClish DK, Sessler CN.Chlorhexidine, Toothbrushing, and Preventing Ventilator-Associated Pneumonia in Critically Ill Adults. United States, 2009. [24]	Randomized, controlled study with double experimental design.	2	Chlorhexidine 0.12% with swsow 2 times a day X Brushing 3 times a day X Brushing + chlorhexidine X Usual oral care.
	Lev A, Aied AS, Arshed S. The effect of different oral hygiene treatments on the occurrence of ventilator associated pneumonia (VAP) in ventilated patients. Israel, 2015. [25]	Prospective, controlled study.	4	Suction brush + baking soda + 1.5% hydrogen peroxide + mouth hydration X Chlorhexidine sponge.
Mechanical and chemical control of dental biofilm	Zhao L, Liu L, Chen J, Yang C, Nie J, Zhang M. Ventilator bundle guided by context of JCI settings can effectively reduce the morbidity of ventilator-associated pneumonia. China, 2017. [26]	Prospective, controlled study	4	Cotton with Chlorhexidine X Chlorhexidine suction sponge

Discussion

Chlorhexidine is an antimicrobial that has effective action against plaque, gingivitis and is biocompatible with the tissues of the oral cavity, being considered the gold standard in the lineage of oral antiseptics. Its use in selective decontamination of the oropharynx may reduce the incidence of pneumonia, as it inhibits bacterial colonization. However, it can lead to resistance of microorganisms and should only occur in high-risk situations.[10,30-31]

The eighteen articles reported that the use of chlorhexidine in the prevention of VAP has been widely studied, however, being implemented as a chemical agent or associated with a mechanical method for control of oral biofilm, fragmenting the articles into two categories.

In the first category, eight articles studied chlorhexidine as a chemical agent in the prevention of VAP. Of these, three (37.5%) used it twice a day, one (12.5%) compared the use of chlorhexidine administered four times a day versus twice a day, two (25%) analyzed its use three times a day and two (25%) investigated chlorhexidine administered four times a day.[11-18]

Chlorhexidine concentrations were also observed in the eight articles, and three (37.5%) used chlorhexidine at 0.12%, four (50%) used chlorhexidine concentration at 0.2% and one (12.5%) used chlorhexidine at 0.5%.[11-18]

Researchers compared 0.08% metronidazole with 0.2% chlorhexidine, both applied every 12 hours, in 873 intensive care patients, in addition to a standard care protocol for pneumonia prevention. The eligible patients were divided into 4 periods: period M (metronidazole at 0.08%) and period C (chlorhexidine at 0.2%), which was fractionated into three moments C1, C2 and C3. The occurrence of VAP in patients intubated during period M was 62.5%, decreasing significantly to 47.6%, 36.7%, and 17.2% per year in the 3 subsequent years. Making evident the importance of the use of chlorhexidine in the prevention of VAP.[13]

The antimicrobial effects of 0.5% chlorhexidine administered every 6 hours and every 12 hours were studied in the ICU with mechanically ventilated patients and realized that no significant differences were found between these approaches. However, the sample composed of only 30 patients limits the relevance of this study. [14]

Considering the exclusive approach of chlorhexidine at 0.12% every 12 hours, two articles had different results. In one study, chlorhexidine gluconate at 0.12% in the oral hygiene protocol incorporated in the VAP prevention bundle had a significant impact on reducing the rates of this respiratory infection from 33.3% to 3.5%. On the other hand, the use of 0.12% chlorhexidine gluconate (Perioplak, REYMER) every 12 hours in mechanically ventilated patients did not significantly decrease the incidence of pneumonia. However, the researchers reported that this procedure is a challenge for the nursing team because they are involved in the execution of oral hygiene daily, however, this care was not prioritized in the daily routine of nursing in this ICU.[11-12]

Chlorhexidine at 0.2% administered three times a day was the subject of two studies, both of which showed a decrease in the incidence of nasocomal infections, shorter hospitalization time and lower mortality rate. The value of the gel was cheaper than that of the solution, making it the best choice, as it proved to be more effective, and cheaper in addition to having less time from the nursing team. [15-16]

Analyzing the results obtained in two studies, it was observed that the topical use of chlorhexidine every four hours reduces the incidence of VAP. Researchers implemented the Suandok Neurosurgical Critical Care Bundle (SNCCB) protocol, which uses chlorhexidine at 0.12% every six hours, in addition to other measures. And they reduced the rate of VAP per 1,000 days of ventilation from 39.55% to 13.3%.[17-18]

A randomized, controlled, double-blind study was conducted with 61 patients aiming to compare oral hygiene with saline solution (n=32) and oral hygiene with 0.2% chlorhexidine (n=29), both administered four times a day. The rate of VAP in the group using saline was 68.8%, contrasted with 41.4% of the group that used chlorhexidine.[17]

In the second category, ten articles were studied regarding the chemical and mechanical control of oral biofilm performed by the intensive care nursing team.[19-28]

Researchers conducted a prospective randomized study to verify whether oral hygiene through more chlorhexidine brushing in 0.12% gel reduces the incidence of VAP, MV time, time of hospitalization and icu mortality rate, when compared to oral hygiene only with chlorhexidine, a solution of 0.12%, without brushing, in mechanically ventilated adult individuals. The sample consisted of

213 patients, 108 were randomized to the control group and 105 to the intervention group. The results showed that, among patients submitted to tooth brushing, there was a significant reduction in MV time and tendency to reduce the incidence of VAP and length of icu stay, although without statistical significance.[19]

In order to evaluate oral hygiene with brushing and toothpaste twice a day, brushing with chlorhexidine gel at 1% four times a day and oromouth aspiration in patients undergoing mechanical ventilation, a historical control study was conducted with 1,087 patients, showing a 50% reduction in the occurrence of VAP. Researchers evaluated the effects of oral hygiene using toothbrushing with toothpaste associated with 0.12% chlorhexidine solution every 12 hours and Suction by Yankauer catheter. The sample consisted of 75 patients and the results showed that this method did not significantly reduce the occurrence of VAP.[21]

On the other hand, a prospective, randomized, 'double-blind' study was conducted with 212 randomized patients in 02 groups, the control group with 106 patients using Chlorhexidine 0.2% and the experimental group, also with 106 patients using a toothbrush with 0.2% chlorhexidine associated with the Yankauer disposable suction catheter and disposable syringe. No difference was found between the methods. However, the use of strict exclusion criteria made episodes of VAP in the study population substantially lower, possibly compromising the analysis of the results. [20]

The relationship between oral hygiene and the reduction of VAP rates was also researched by a randomized, controlled study with a double design that distributed 547 patients in four groups, the first used 0.12% chlorhexidine with oral swa dome twice a day, the second performed brushing three times a day, the third combined brushing three times a day with chlorhexidine every twelve hours and the fourth used the usual care. The article showed that chlorhexidine 0.12% with oral swawas effective in reducing VAP, that brushing did not reduce the incidence of VAP and that the combined use of brushing and chlorhexidine did not provide additional benefit over the use alone of chlorhexidine.[23]

The implementation of a global hygiene regimen was investigated in 90 patients divided into two groups, the first (study group, n=45) implemented a global hygiene regimen with suction brush, sodium bicarbonate, 1.5% hydrogen peroxide and mouth moisturizer, while the second (control group, n=45) underwent conventional treatment with sponge and chlorhexidine at 0.2%. The incidence of VAP in the study group was 8.9% compared to 33.3% in the control group. Evidencing that global hygiene effectively reduces the occurrence of VAP. However, the non-blind nature of the study has the potential to introduce.[26]

Analyzing the results obtained in two articles, it was observed that the use of chlorhexidine sution sponge in oral hygiene of adult patients, under mechanical ventilation, reduced the incidence of VAP, with statistically significant results. In one study researchers distributed 899 patients in two periods. Period 1 (n=425) used foam with chlorhexidine, while period 2 (n=474) used the suction sponge and chlorhexidine. In patients in period 1, the incidence of VAP was 12.8%, compared to 8.5% in period 2. However in period 1 the annual costs were calculated at US$ 475.00 and in period 2 at US$ 12,882.00. However, in the hospital where the study was conducted, for each VAP infection, the expenditure was approximately US$ 37,920.00.[26]

On the other hand, a study conducted by a group of researchers to evaluate oral hygiene with cotton soaked in chlorhexidine confronting as a suction sponge device soaked in chlorhexidine, both associated with a ventilatory budle guided by the Joint Commission International (JCI). The incidence of bad breath, dirt residue and plaque were significantly lower in the group that used the sponge with suction and chlorhexidine. Bad breath 10% versus 40%, dirt residue 16.7% versus 70%, plaque 3.3% versus 30%. Vap cases per thousand days of MV were reduced from 17 to 3.5 cases. The study concludes that the ventilation package can in fact reduce vame morbidity and oral care as the suction sponge and chlorhexidine can effectively improve oral hygiene.[25]

The electric brush was another object of investigation among the researches analyzed. A randomized double-blind longitudinal prospective study compared oral hygiene with chlorhexidine (GS) versus oral hygiene with chlorhexidine associated with electric brush (GR). A total of 147 patients were included in the study, 73 in the chlorhexidine standard group and 74 in the raspall group (chlorhexidine + electric brush). The incidence of VAP per 1000 days of mechanical ventilation was 25.89 days in the standard group and 20.68 days in the raspall group, so there is a tendency to decrease the occurrence of VAP in the raspall group.[28]

On the other hand, in this prospective, simple-blind randomized study, 147 patients were divided into two groups. The first, standard group (n=73), performed oral care with chlorhexidine at 0.12% every 8 hours, the second group brushed teeth (n=74), used oral care standards plus electric brush. An episode of VAP was documented in 73.3% of the toothbrush group compared to 55.6% in the standard group. The intervention was simple and safe, but was not effective in preventing VAP.[27]

Oral care in intensive care is extremely important, considering the immobility imposed on the mechanically ventilated patient and the microbial diversity of the oral cavity, enabling high rates of VAP. In order to reduce the incidence of VAP, the National Agency for Sanitary Surveillance - ANVISA, recommends the use of chlorhexidine at 0.12%.[4]

VaP is associated with increased costs in health, morbidity and mortality, therefore, other studies are needed, in larger groups, with greater statistical relevance that investigates the use of oral chlorhexidine associated, or not, with other devices and that require adequate time from the nursing team, because due to the complexity of this patient audience, the nursing professional will often be overloaded, as well as the financial cost to the institution.

Conclusion

The narrative review allowed the construction of a synthesis of practices related to oral hygiene of critically ill patients. The number of publications allowed comparing a diversity of practices related to the reduction of oral biofilm aiming to reduce the incidence of VAP.

Although research on oral care and VAP is abundant, there is a lack of consensus regarding the frequency, mechanical devices and chlorhexidine concentration.

As for chemical control, chlorhexidine, either in the form of gel or as a rinse at concentrations of 0.12% or 0.2%, administered every twelve hours

reduced the occurrence of VAP. Despite the lack of uniformity regarding the number of times the procedure should be performed and the concentration of the drug to be used, these results show that the institutions seek to use the latest evidence on the use of this antimicrobial.

In view of the findings of this review, the most appropriate mechanical/chemical methods are those that offer brushing associated with suction, in the same device, be it brush or suction sponge, both associated with the use of chlorhexidine.

It was evident that brushing, in isolation, did not bring benefits in reducing infection, however the isolated use of chlorhexidine proved beneficial in reducing VAP.

Regarding clinical practice, we can affirm that this review collaborates with the implementation of new protocols aimed at improving oral care in the prevention of VAP in critically ill patients.

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References

1. Byers JF, Sole ML. Analysis of factors related to the development of ventilator-associated pneumonia: use of existing databases. Am J Crit Care. 2000 set.; 9(5):344-9.

2. Tablan OC, Anderson LJ, Besser R, Bridges C, Hajjeh R. Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee [Internet]. MMWR Recomm Rep. 2004 [citado 2021 Jul. 15];53(RR-3):1-36. Disponível em: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.221.4803&rep=rep1&type=pdf

3. Camargo LFA, organizador. Diretrizes Sobre Pneumonia Associada à Ventilação mecânica (PAV) [Internet]. São Paulo: Office, 2006 [citado 2021 Jul. 15]. 20 p. Disponível em: https://proqualis.net/sites/proqualis.net/files/000002333b7Xqvm.pdf

4. Brasil. Agência Nacional de Vigilância Sanitária. Medidas de Prevenção de Infecção Relacionada à Assistência à Saúde. Brasília: Anvisa, 2017.

5. Associação Paulista de Epidemiologia e Controle de Infecção Relacionada à Assistência à Saúde (APECIH). Um Compêndio de Estratégias para a Prevenção de Infecção Relacionada à Assistência à Saúde em Hospitais de Cuidados Agudos [Internet]. São Paulo: Editora Office, 2008 [citado 2021 Jul. 15]. Disponível em: https://proqualis.net/sites/proqualis.net/files/000002333b7Xqvm.pdf

6. Beraldo CC, Andrade D. Higiene Bucal Com Clorexidina Na Prevenção De Pneumonia Associada À Ventilação Mecânica. São Paulo: J bras pneumol. 2008 set. [citado 2021 Jul. 15];34(9). doi: https://doi.org/10.1590/S1806-37132008000900012

7. Oliveira LCBS, Carneiro PPM, Fischer RG, Tinoco EMB. A presença de patógenos respiratórios no biofilme bucal de pacientes com pneumonia nosocomial. Rev. bras. ter.

intensiva. 2007 dez. [citado 2021 Jul. 15];19(4):428-33. doi: https://doi.org/10.1590/S0103-507X2007000400004

8. Polit DF, Beck CT. Fundamentos da pesquisa em enfermagem: avaliação de evidências para a prática de enfermagem. 7. ed. Porto Alegre: ArtMed; 2011.

9. McCoy LC, Wehler CJ, Rich SE, Garcia RI, Miller DR et al. Adverse events associated with chlorhexidine use: Results from the Department of Veterans Affairs Dental Diabetes Study. The Journal Of The American Dental Association. 2008 fev. jul. [citado 2021 Set. 20];139(2):178-83. doi: http://dx.doi.org/10.14219/jada.archive.2008.0134

10. Gondim FM, Gomes IP, Firmino F. Prevenção e tratamento da mucosite oral. Rev. enferm. UERJ. 2010 jan./mar. [citado 2021 Ago. 10];18(1):67-74. Disponível em: https://docplayer.com.br/12247463-Prevencao-e-tratamento-da-mucosite-oral.html

11. Souza AF, Guimarães AC, Ferreira EF. Avaliação da implementação de novo protocolo de higiene bucal em um centro de terapia intensiva para prevenção de pneumonia associada à ventilação mecânica. Revista Min. Enferm. 2013 jan./mar. [citado 2021 Ago. 15];17(1):177-84. doi: http://dx.doi.org/10.5935/1415-2762.20130015

12. Guimarães GR, Queiroz APG, Ferreira ACR. Instituição de um Protocolo de Higiene Bucal em Pacientes Internados no CTI do HUSF [Internet]. Braz J Periodontol. 2017 mar. [citado 2021 Ago. 15];27(1):7-10. Disponível em: http://www.interativamix.com.br/SOBRAPE/arquivos/2017/marco/REVPERIO_MAR%C3%87O_2017_PUBL_SITE_PAG-07_A_10%20-%2027-03-2017.pdf

13. Chen Y, Mao EQ, Yang YJ, Zhao SY, Zhu C, Wang XF et al. Prospective observational study to compare oral topical metronidazole versus 0.2% chlorhexidine gluconate to prevent nosocomial pneumonia. American Journal Of Infection Control. 2016 out. [citado 2021 Ago. 22];44(10):1116-22. doi: http://dx.doi.org/10.1016/j.ajic.2016.03.054

14. Bosca ID, Berar C, Aton F, Mărincean AM, Petrisor C, Ionescu D, et al. The Impact Of 0.5% Chlorhexidine Oral Decontamination on the Prevalence of Colonization and Respiratory Tract Infection in Mechanically Ventilated Patients: Preliminary Study [Internet]. Revista Societatii Române de Pneumologie. 2013 out./dez. [citado 2021 Ago. 22];62(4):217-21.

15. Tang HJ, Chao CM, Leung PO, Lai CC. An Observational Study to Compare Oral Hygiene Care With Chlorhexidine Gluconate Gel Versus Mouthwash to Prevent Ventilator-Associated Pneumonia. Infection Control & Hospital Epidemiology. 2017 fev. 8 [citado 2021. Ago. 22];38(5):631-2. doi: http://dx.doi.org/10.1017/ice.2017.24

16. Ćabov T, Macan D, Husedžinović H, Škrlin-Šubić J, Bošnjak D, Šestan-Crnek S et al. The impact of oral health and 0.2% chlorhexidine oral gel on the prevalence of nosocomial infections in surgical intensive-care patients: a randomized placebo-controlled study. Wiener Klinische Wochenschrift. 2010 jul. [citado 2021 Ago. 22];122(13-14):397-404. doi: http://dx.doi.org/10.1007/s00508-010-1397-y

17. Özçaka Ö, Başoğlu ÖK, Buduneli N, Taşbakan MS, Bacakoğlu F, Kinane DF. Chlorhexidine decreases the risk of ventilator-associated pneumonia in intensive care unit patients: a randomized clinical trial. Journal Of Periodontal Research. 2012 fev. 29 [citado 2021 Ago. 26];47(5):584-92. doi: http://dx.doi.org/10.1111/j.1600-0765.2012.01470.x

18. Triamvisit S, Maneewan C, Bunturat P, Wongprasert W, Limpassatan K, Kasatpibal N et al. Results of an Evidence-Based Care Bundle for Reducing Ventilator-Associated Pneumonia (VAP) in Neurosurgical Patients. J Med Assoc Thai. 2016 set. [citado 2021 Ago. 26]; 99(9):1014-9.

19. Vidal CFL, Vidal AKL, Monteiro JUNIOR JGM, Cavalcanti A, Henriques APC, Oliveira M et al. Impact of oral hygiene involving toothbrushing versus chlorhexidine in the prevention of ventilator-associated pneumonia: a randomized study. Bmc Infectious Diseases. 2017 jan. 31 [citado 2021 Ago. 26];17(1):2-9. doi: http://dx.doi.org/10.1186/s12879-017-2188-0

20. Chacko R, Amala Rajan, Prabha Lionel, M Thilagavathi, Bijesh Yadav, Jeyarani Premkumar. Oral decontamination techniques and ventilator-associated pneumonia. British Journal of Nursing. 2017 jun. 8 [citado 2021 Ago. 02];26(11):594-9. doi: http://dx.doi.org/10.12968/bjon.2017.26.11.594

21. Weiss MD, Wasdell MB, Bomben MM, Rea KJ, Freeman RD. Sleep Hygiene and Melatonin Treatment for Children and Adolescents With ADHD and Initial Insomnia. Journal of The American Academy Of Child & Adolescent Psychiatry. 2006 maio [citado 2021 Ago.];45(5):512-9. doi: http://dx.doi.org/10.1097/01

22. Cutler LR, Sluman P. Reducing ventilator associated pneumonia in adult patients through high standards of oral care: A historical control study. Intensive And Critical Care Nursing. 2014 abr. [citado 2021 Ago. 14];30(2):61-8. doi: http://dx.doi.org/10.1016/j.iccn.2013.08.005

23. Munro CL, Grap MJ, Jones DJ, McClish DK, Sessler CN. Chlorhexidine, Toothbrushing, and Preventing Ventilator-Associated Pneumonia in Critically Ill Adults. Am J Crit Care. 2009 set. [citado 2021 Ago. 14];18(5):428-37. doi: http://dx.doi.org/10.4037/ajcc2009792

24. Lev A, Aied AS, Arshed S. The effect of different oral hygiene treatments on the occurrence of ventilator associated pneumonia (VAP) in ventilated patients. Journal Of Infection Prevention. 2014 dez. 10 [citado 2021 Ago. 17];16(2):76-81. doi: http://dx.doi.org/10.1177/1757177414560252

25. Lili Z, Lili L, Jing C, Caili Y, Jianjian N, Minwei Z. Ventilator bundle guided by context of JCI settings can effectively reduce the morbidity of ventilator-associated pneumonia [Internet] [citado 2019 Mar. 15]. Disponível em: http://med.wanfangdata.com.cn/Paper/Detail?id=PeriodicalPaper_PM28743340.

26. Ory J, Raybaud E, Chabanne R, Cosserant B, Faure JS, Guérin R et al. Comparative study of 2 oral care protocols in intensive care units. American Journal of Infection Control. 2017 mar. [citado 2021 Set. 15];45(3):245-50. doi: http://dx.doi.org/10.1016/j.ajic.2016.09.006

27. Pobo A, Lisboa T, Rodriguez A, Sole R, Magret M, Trefler S et al. A Randomized Trial of Dental Brushing for Preventing Ventilator-Associated Pneumonia. Chest. 2009 ago. [citado 2021 Set. 20];136(2):433-9. doi: http://dx.doi.org/10.1378/chest.09-0706 . Epub 2009 maio 29.

28. Biosca AR, Saperas LA, Grau NG, Rico LR, Guillén MCV. Prevención de la neumonía asociada a la ventilación mecánica: estudio comparativo de dos métodos de higiene

oral. Enfermería Intensiva. 2011 jul. [citado 2021 Set. 20];22(3):104-11. doi: http://dx.doi.org/10.1016/j.enfi.2010.10.003

29. Guimarães MMQ, Rocco JR. Prevalence of ventilator-associated pneumonia in a university hospital and prognosis for the patients affected. J. bras. pneumol. 2006 out. Jul. [citado 2021 Set. 20];32(4):339-46. doi: https://doi.org/10.1590/S1806-37132006000400013

30. Oliveira TC, Azevedo AS. Eficácia da higiene oral na prevenção de pneumonia associada à ventilação mecânica. Perspectivas online. 2016 nov. [citado 2021 Set. 28];21(6):20-4. doi: https://doi.org/10.25242/886862120161024

31. Almeida JAB, Martins JJL, Assis VE. O papel do enfermeiro na prevenção da pneumonia associada à ventilação mecânica na unidade de terapia intensiva. Barbacena [Graduação em Enfermagem] – Universidade Presidente Antônio Carlos; 2012.

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Self-care Practices in Elderly People with Chronic Disease Amid COVID-19 Pandemic

Práticas de Autocuidado dos Idosos com Doença Crônica em tempos da COVID-19

Prácticas de autocuidado para ancianos con enfermedades crónicas en tiempos de COVID-19

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RESUMO

Objetivo: analisar as evidências científicas sobre as práticas de autocuidado de idosos com doença crônica em tempo de pandemia da COVID-19. **Método:** trata-se de uma revisão integrativa da literatura, que compreendeu buscas nas bases de dados eletrônicas LILACS, BDENF, SciELO, MEDLINE, CINAHL, WOS e Science Direct, no período de 2020 a 2022, tendo como descritores controlados o DeCS e o MeSH. **Resultados:** cinco artigos foram selecionados para análise, os quais apontaram mudanças de hábitos e mecanismos de autocuidado, bem como dificuldades para a realização de atividades básicas e instrumentais da vida diária, além do impacto na dieta e prática de exercícios, assim como aspectos relacionados a fatores socioeconômicos e à saúde mental. **Considerações finais**: para que haja manutenção dessas práticas de forma satisfatória, a colaboração entre profissionais da saúde e idosos deve existir, por meio da educação em saúde e das ações de intervenção e cuidado na atenção especializada, a fim de que a dieta adequada seja mantida, além de uma regularidade na realização de exercícios físicos e manutenção das terapias medicamentosas, como também independência e autonomia aos idosos quanto ao próprio cuidado.
Descritores: Idosos; Doença Crônica; Autocuidado; Covid-19.

ABSTRACT

Objective: To analyze the scientific evidence on the self-care practices of the elderly with chronic illness in the time of the COVID-19 pandemic. **Method:** This is an integrative literature review, carried out using the databases LILACS, BDENF, SCIELO, MEDLINE, CINAHL, WEB OF SCIENCE and SCIENCE DIRECT, from literature published in the period between 2020 and 2022, having as controlling descriptors the DeCS and MESH. **Results:** Five articles were selected for analysis, which showed changes in habits and self-care mechanisms, such as difficulties in performing basic and instrumental activities of daily living, in addition to the impact on diet and exercise, as well as aspects related to socioeconomic factors and mental health. **Final Considerations:** In order for these practices to be maintained satisfactorily, collaboration between health professionals and the elderly must exist, through health education and care interventions on specialized care, so that an adequate diet is maintained, as well as as there is a regularity in the accomplishment of physical exercises and maintenance of the pertinent drug therapies in order to provide discernment and autonomy of the own care to the elderly.
Descriptors: Elderly; Chronic Disease; Self-care; COVID-19.

RESUMEN

Objetivo: Analizar las evidencias científicas sobre las prácticas de autocuidado de los ancianos con enfermedad crónica en tiempos de la pandemia de COVID-19. **Método:** Esta es una revisión integradora de la literatura, que comprende búsquedas en las biblioteca virtuales LILACS, BDENF, SCIELO, MEDLINE, CINAHL, WEB OF SCIENCE y SCIENCE DIRECT, de 2020 a 2022, con los descriptores controlados DeCS y MESH. **Resultados:** Se seleccionaron cinco artículos para el análisis, que evidenciaron cambios en los hábitos y mecanismos de autocuidado, como dificultades para realizar las actividades básicas e instrumentales de la vida diaria, además del impacto en la alimentación y el ejercicio, así como aspectos relacionados con factores socioeconómicos y salud mental. **Consideraciones finales:** Para que estas prácticas se mantengan satisfactoriamente, debe existir una colaboración entre los profesionales sanitarios y los ancianos, a través de la educación sanitaria y de acciones de intervención y atención centradas en la atención especializada, de forma que se mantenga una alimentación adecuada, así como una regularidad en la la realización de ejercicios físicos y mantenimiento de las terapias farmacológicas pertinentes a fin de proporcionar discernimiento y autonomía del propio cuidado a los ancianos.
Descriptores: Ancianos; Enfermedad Crónica; Autocuidado; COVID-19.

REVIEW

Introduction

Population aging is characterized by a proportional increase between the elderly and adult population and the decrease in the number of existing children and young people. Worldwide, the expansion of population aging began with the Industrial Revolution, a fact that led to a slowdown in the pace of population growth. In relation to the Brazilian population, there was an improvement in relative life, represented by a greater number of people aging than being born, demonstrated by the reduction in fertility rates, by the decrease in the average number of children per woman and by the decrease in the level of mortality.[1,2]

Both globally and nationally, there has been an increase in life expectancy due to improved hygiene conditions, through measures such as the implementation of vaccines and the use of antibiotics, for example, which have provided significant development towards better conditions and quality of life over the years.[3]

However, due to urbanization and economic and social growth, even with the reduction in acute infectious conditions, society faces the dilemma of chronic non-communicable diseases (NCDs), characterized by affecting people of all social classes, and which has as risk factors race, sex, the presence of dyslipidemias, excessive alcohol consumption and sedentary lifestyle for example, reaching mainly those with low income, lower education rate and low access to health services.[4-6]

NCDs are considered as one of the main causes of death in the world and may occur due to changes in quality of life conditions or risk factors that may be preventable or not, with hypertension and diabetes being the most prevalent among the elderly in Brazil, with a proportion of people who reported some representative diagnosis of 56.6% and 21.9%, respectively, due to factors such as poor quality of eating habits, smoking and alcohol consumption, for example, practices indicative of the origin and cause of the illness of the old person.[4,6-7]

Systemic arterial hypertension (SAH) is a clinical condition that can cause functional and structural changes in organs such as the heart, brain, kidneys and blood vessels, and metabolic changes, usually associated with type 2 diabetes, with diabetes mellitus (DM) being the name given to a group of metabolic diseases characterized by hyperglycemia due to deficiency in insulin secretion and/or its action.[8-10]

Even today, even with the care of chronic diseases, there is still the possibility of other diseases caused by external factors, such as the involvement of acute and severe infectious diseases, such as COVID-19, a disease caused by the SARS-CoV-2 virus and transmitted through direct, indirect or close contact with people infected with the virus, symptomatic or asymptomatic, through secretions such as saliva and secretions or respiratory droplets, which are expelled when an infected person coughs, sneezes or speaks and which can cause flu-like and even more severe symptoms such as dyspnea, respiratory distress, the drop in oxygen saturation and perioral cyanosis and on the face.[11,12]

One study showed that much more severe cases affected the elderly, the majority of which occurred due to the pre-existence of comorbidities, considering that 64.3% of patients diagnosed with COVID-19, among the cases evaluated, had

some type of comorbidity aggravating the clinical picture, such as SAH (30%) and DM (12.1%), which represents a greater chance of a serious involvement to this population if there is exposure to said vírus.[13]

According to reports, hyperglycemia associated with COVID-19 infection can reduce the capacity of the respiratory system, due to increased glucose levels at the epithelial level, in addition to an exacerbated formation of advanced glycation products and immunoglobulin dysfunction, and the virus may also bind to a pancreatic receptor and cause the glycemic index to decrease at very low levels, may indicate a prognostic index of possible serious complications, increasing the risk of mortality.[14]

Regarding cardiac functions, studies have identified the possibility of the virus using the same angiotensive conversion enzyme 2 receptor (ACE2) to enter the cell, also pointing out that hypertensive patients had abnormal levels of various indicators, such as lymphopenia and inflammation, and cardiac functions, indicating a low prognostic rate for improvement and even increased propensity to fatal cases for hypertensive patients.[15,16]

Such diseases are considered chronic and require attention in their own care and management, due to the severity with which they may occur. Thus, self-care can be defined as the maintenance by an adult of living conditions, of their own needs and of the balance of basic needs, performing prevention and health promotion measures, and self-care practices are related to the knowledge and practices taught and learned that stimulate one's own ability to meet such health needs.[17,18]

If the individual cannot maintain self-care practices or is unable to do so due to poor health issues, it is recommended that there is help mediated by health professionals through guidance and follow-up.[19]

The motivation for carrying out the study in question stems from the need to monitor patients in the maintenance of health in chronic conditions and a correct management of self-care practices, in order to seek to understand how the COVID-19 pandemic affected these practices, leading to possible self-neglect due to the high concern with COVID-19 and the low demand for identification and follow-up in the treatment of chronic diseases. In research in the databases, comprising the period from 2020 to 2021, evidence pointed to a gap in knowledge in articles about the practice of self-care in patients with chronic diseases in the period of the covid-19 pandemic, the object of this investigation.

The study aims to analyze scientific evidence on self-care practices of elderly people with chronic disease in time of pandemic covid-19.

Method

This is an integrative literature review study, which followed six stages: elaboration of the guide question, search or sampling in the literature, data collection, critical analysis of the included studies, interpretation of the results and presentation of the integrative review.[20]

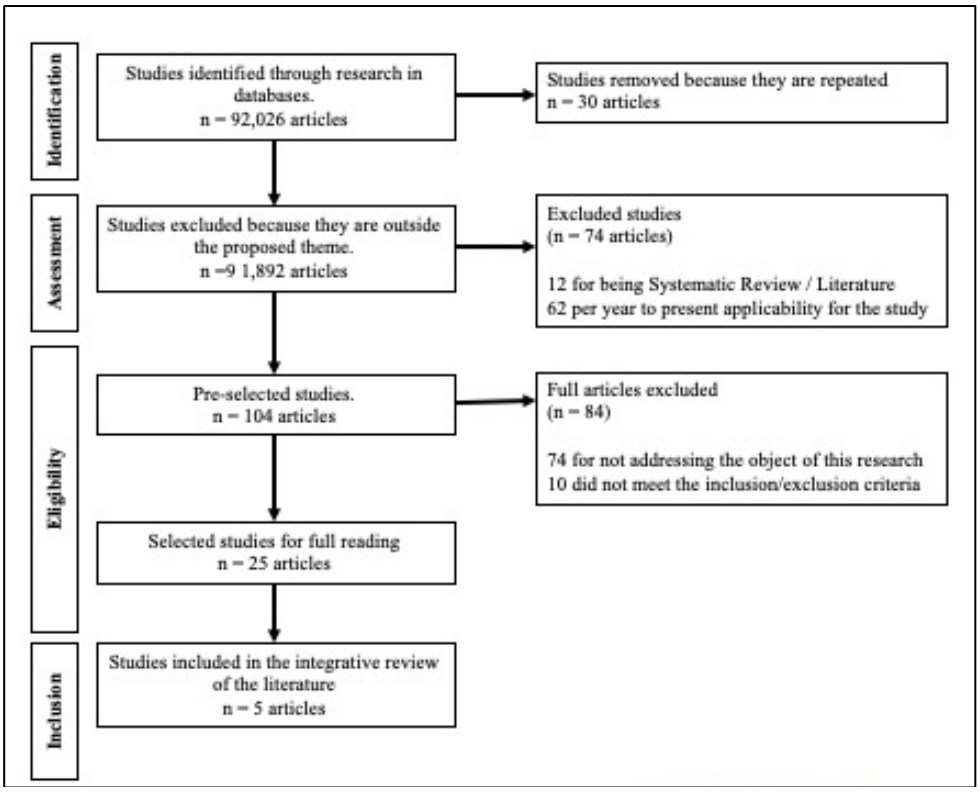
The research question of the integrative literature review arose from the PICo strategy, an acronym in which P means population, I- interest, Co-context, fundamental elements of the research question for integrative literature review 21. Taking into account the recommendations of the PICo Strategy, the question of the bibliographic search for the proposal of the integrative review study was: What is the scientific evidence published on the self-care practices (I) of the elderly with Chronic Disease (P) in the time of the COVID-19(Co)pandemic pandemic?

Data collection occurred from November 2021 to January 2022, when searches were conducted in the electronic databases Latin American and Caribbean Literature on Health Sciences (LILACS), Nursing Database (BDENF), Scientific Electronic Library Online (SciELO), Medical Literature Analysis and Retrievel System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web Of Science (WOS) and Science Direct, we used the controlled descriptors Descriptors in Health Sciences (DeCS) and Medical Subject Headings (MeSH), and boolean logic with the operators "OR" (additive) and "AND" (delimiter).

The inclusion criteria were scientific articles published in full, from April 2020 to January 2022, available electronically, in Portuguese, English and Spanish, that met the objective of this research. A total of 92,026 articles were obtained, and 91,892 articles were excluded because they were repeated studies and literature reviews, reflective studies and experience reports, and a peer review was performed.

After the search in the database and virtual library, 104 articles were selected to evaluate the applicability in the theme, and 74 articles were excluded because they did not address the object of this research, where 25 articles were pre-selected for full reading, of which 10 did not meet the eligibility criteria and, finally, five articles were selected to constitute the present review (Figure 1).

Figure 1- Flowchart Of Search and Selection Of Studies In Databases adapted from PRISMA22-Brazil-2022.



The critical evaluation related to methodological evaluation was related to the application of adapted instruments that gave more accurate diagnoses regarding the quality necessary for the observation of the articles.

The Critical Appraisal Skill Programme (CASP) consists of critical analysis based on the following questions:1) Is the objective clear and justified?; 2) Is the methodology adequate?; 3) Are theoretical-methodological procedures presented and discussed?; 4) Was the study sample selected adequately?; 5) Is data collection detailed?; 6) Was the relationship between researcher and researched considered?; 7) Were the ethical aspects of the research considered?; 8) Is the data analysis rigorous and substantiated, with the specification of statistical tests?; 9) Were the results clearly presented?; 10) Is research important?.[23]

This adapted instrument had ten items (maximum ten points), classifying the papers with the following scores: six to ten points for good methodological quality and reduced bias and the minimum five points for satisfactory methodological quality, with increased risk of bias.[24]

The classification by level of evidence, based on a hierarchy, was guided by aspects delimited by the Agency for Healthcare and Research and Quality (AHRQ), in which seven levels could be observed, i.e.: level I is equivalent to systematic review or meta-analysis; level II is equivalent to well-delimited randomized controlled trials; level III is equivalent to well-delimited non-randomized clinical trials; level IV is equivalent to well-delimited cohort and case-control studies; level V is equivalent to the systematic review of descriptive and qualitative studies; level VI is equivalent to descriptive or qualitative studies

and level VII is equivalent to opinions of authorities and/or reports of speciality committees.[23,25]

Regarding the discussion of the results, the data were compared by the findings of other authors in the literature, with delimitations of the conclusions and interference of the researchers. Regarding the presentation of the RIL were presented descriptively and through table and graph, using the Microsoft Excel program (version 2016).

As for the ethical aspects of the research, RIL does not require the submission of the study to a Research Ethics Committee (CEP).

Results

Among the databases and electronic libraries, SciELO and MEDLINE predominated, and 2021 presented a higher frequency, analyzing the year of publication. As for the objectives set out by the researchers of the studies, there are several, as presented in Chart I, in which among them, we sought to understand how the elderly with chronic diseases have lived and dealt with the COVID-19 pandemic, in addition to changes in habits.

Chart I - Characterization of the sample selected in the study. Brazil. 2022

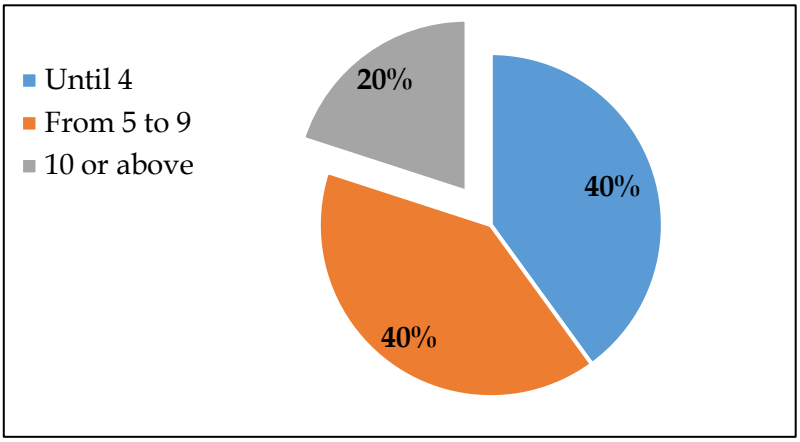
Database/ Electronic library	Code	Title	Journal/ Year	Objective	Main Results
SciELO	S1	Difficulty in activities of daily living and need for help in the elderly: discussing models of social distancing with evidence from the ELSI-COVID-19 initiative.	Cadernos de Saúde Pública 2020	To analyze whether elderly people with difficulty or need help for basic or instrumental activities of daily living are more socially distant in times of COVID-19.	Limitations in the performance of ABVD or IADL have been identified
SciELO	S2	Life habits of people with diabetes mellitus during the COVID-19 pandemic.	Cogitare Enfermagem 2021	To characterize impacts of social distancing caused by the pandemic of coronavirus disease in the lives of people with diabetes mellitus.	There was an impact on weight and physical activity Socioeconomic aspects and Mental Health Affected
MEDLINE	S3	Association between Fear of COVID-19 with Self-care Behaviors in Elderly: A Cross- Sectional Study	Frontiers in Psychology 2021	To determine the association between the fear of COVID-19 and self-care practices in the elderly.	Fear associated with advanced age and perceived risk Depressive symptoms and anxiety

MEDLINE	S4	What Happened to People with Non-Communicable Diseases during COVID-19: Implications of H-EDRM Policies.	International Journal of Environmental Research and Public Health 2020	Examine the experiences of people with NCDs and their relevant self-care patterns during the COVID-19 pandemic.	Difficulty in monitoring with health professionals and in the purchase of protection supplies.
CINAHL	S5	Assessing acceptability and patient experience of a behavioral lifestyle intervention using fitbit technology in older adults to manage type 2 diabetes amid covid-19 pandemic: A focus group study: Focus group analysis of lifestyle intervention.	Geriatric Nursing 2021	To evaluate the acceptance and experiences of elderly patients with overweight/obesity and diabetes mellitus 2, during the use of a fitness technology device through interventions in lifestyle and behavior, adapted during the COVID-19 pandemic.	Impact on diet and exercise

Codes from S1 to S5 were used to represent the selected articles as an element to simplify their identification and presentation.

Regarding the number of authors, two articles presented between 4 and 7 authors (80%), and one had 10 authors (20%), as can be seen in Figure 2, in which their training included nursing, medicine, biochemistry and physiotherapy, with collaborators who had technical training to the postdoctoral. In a search carried out in the Open Researcher and Contributor ID (ORCID), it was found that the information about the formation of some authors was incomplete. Therefore, only the information available and present in the ORCID curriculum was considered.

Figure 2 - Number of Authors of Selected Articles - Brazil - 2022.



Regarding the characterization of the selected studies, the areas of journals/journals encompassed axes such as collective health, psychology sciences, interdisciplinarity and nursing; Regarding the Qualis of the journals, B1 was the most recurrent, with level 3 qualification, good, taking into account the score eight, of ten, in the classification (Chart 2).

Chart 2 - Characterization of the selected studies, according to language, methodological design, journal quals, instrument used and place of study/participants. Brazil, 2022.

Code	Language	Methodological design/ Qualis of the journal	Instrument used	Place of study/ Participants	EL
S1	Portuguese	Cross-sectional study/ B1	Standardized questionnaire, with sociodemographic information, ABVD, IADL, need for help and large Brazilian region where it was performed/ Modified Katz Index/ Lawton Scale	Brazil 4,035 participants, with an average age of 70 years	VI
S2	Portuguese	Descriptive study of quantitative approach/B1	Self-Care Activities Questionnaire related to Diabetes, translated version, adapted and validated for Brazilian culture (QAD)/	Brazil 102 people with DM, with an average age group of 41.8 years	VI
S3	English	Cross-Sectional Study/ A2	Standardized questionnaire	Singapore, Mainland Asia 413 older people, with an average age of 69 years	VI
S4	English	Cohort study, randomized/ B1	Standardized questionnaire (open questions)	Hong Kong, China 765 people, aged 64 years	II
S5	English	Qualitative study, with focus group method/ A1	Semi-structured questionnaire	San Antonio, Texas, United States 18 elderly with an average age of 72 years	VI

*EL: Evidence Level

Regarding language, English was the most recurrent, and quantitative studies prevailed, in the form of cross-sectional and cohort studies, as well as

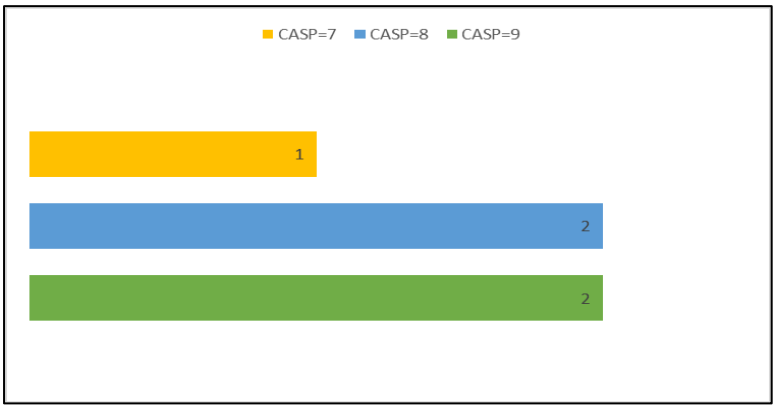
randomized, with standardized questionnaires, and this instrument was the most used research method.

As for the study site, three were concentrated on the American continent, one in the North American continent, two in the South American and two on the Asian continent. Regarding the age of the participants of such studies, the average was between 69 and 72 years.

Regarding the critical evaluation of the selected articles, the articles were classified, by level of evidence and orientation, based on the agency for healthcare and research and quality (AHRQ) instrument, as levels II and VI, for presenting evidence derived from a randomized cohort study and four descriptive or qualitative studies.

Regarding the methodological evaluation, the articles presented a score greater than or equal to seven according to critical analysis through the CASP, where one article presented a score of seven and two presented scores equivalent to eight and nine, demonstrating a good methodological quality and reduced bias, as can be observed in Figure 3.

Figure 3- Number of Selected Articles Evaluated Methodologically according to CASP. Amazon, 2022.



Discussion

Considering the relevance and contemporaneity of COVID-19, there was an increase in the number of publications between 2020 and 2022 on this topic. The growth in scientific production regarding this pathology resulted from the need to expand knowledge to direct the actions to be carried out. When analyzing the publications available in a database, it was found that, even if there was a predominance of articles published in countries with greater scientific infrastructure, those considered emerging continued in the search for knowledge in order to encourage research and education.[26]

A scientific research, conducted in China between January and March 2020, identified the production of 55 articles, being the country with the highest scientific production, with predominant language in English, in which the majority of the studied public was composed of adults and the elderly, who had already been infected by COVID-19, with a methodological design composed of mostly quantitative research.[27]

Therefore, analyzing the relationship between the elderly and the pandemic of the new coronavirus, we highlight guidelines aimed at active aging

and ageism, in which concepts such as autonomy and dependence are interspersed and impacted on aspects of the lives of the elderly, some totally dependent and others completely autonomous. These aspects impact life-organizing practices, especially considering the reality of a pandemic.

On the other hand, it is also observed that there has been a significant increase in the interdependence of family members, highlighted by the concern with the elderly, their forgetfulness and their adequacy to the measures to prevent covid-19. In addition, the difficulties imposed by the pandemic situation and the fear of the virus and its potential consequences for the elderly arose.[28]

Another worrisome factor is the high prevalence of chronic diseases in Brazil, and hypertension and diabetes are the predominant non-communicable chronic diseases, since risk factors for covid-19 are also considered. The elderly with these pathologies have a health profile prone to a high risk of severity if they are infected. There is evidence that, because of the pandemic, there was a lower demand for medical, dental or other health professionals, as well as a considerable worsening of the health status of this population.[29]

A study that sought to identify the socioeconomic profile of elderly people in a region of Brazil showed that chronic non-communicable diseases, mainly hypertension and diabetes, were predominant among the elderly, with a mean age of 72 years. The research aimed to highlight the practice of self-care in the pandemic period, such as measures related to mask handling, cleaning of household surfaces more frequently, isolation, physical distancing and maintenance of adequate domestic supply of food and medicines. The study showed full levels of independence of the elderly evaluated by tests applied through the Katz and Lawton scales, which measure their functionalities regarding the performance of basic and instrumental activities of daily living, respectively.[30]

Thus, we highlight some self-care practices observed in the studies that comprised the present investigation, regarding the maintenance of medication or suspension, due to doubts about the dosage or impossibility of contacting any doctor. It was also identified that there were difficulties for the supply to occur, in addition to the practice of physical activities and the care of mental state due to financial instability. However, it was noted that there was concern to maintain adequate glucose levels in the case of the elderly with type 2 diabetes mellitus.[31]

With regard to self-care practices performed by the elderly, a study states that the performance of such measures enables their autonomy in relation to themselves, because, in this way, they can recognize symptoms of their health conditions and even develop strategies, so that the performance of these activities promotes the improvement of their health and living condition.[32]

For the scope of the elderly with diabetes mellitus, another study states that the practice of self-care for diabetic patients is related both to the interest of the elderly and to the specialized care in which it is inserted. It points out aspects such as the need for professionals to be aware of drug interactions and are pointed out as measures for the elderly to pay attention to adequate replacement of medication and glycemic control, considering that good health maintenance provides lower risk and severity in cases of infection. In view of the panorama of the pandemic as one of the worst-case scenarios, it is essential to follow up with

a well-trained and informed multidisciplinary team in order to care for the elderly and clarify the measures they should practice.[33]

Regarding aspects related to mental health, topics such as vulnerability and resilience were pointed out, such as fear, stress, anxiety and depression, which are evidenced as some of the reflexes in the emotional health of patients. As a means of alleviate this situation, practical and emotional support is indicated by health professionals, in addition to the sharing of simple and clear information about the health conditions and disease resulting from the pandemic. It is also recommended to strengthen contact through digital media with their relative and, mainly, the establishment or maintenance of regular routines, such as the practice of daily physical activities and the proper diet, thus creating continuous habits.[34]

For this, nursing, which acts in the care of patients in an integral and continuous way and has essential attributions to clinical practice, such as preventive and intervention actions, in the person of gerontological nurses, plays a fundamental role in the action in the face of the pandemic. It works through nursing diagnoses that enable the identification of the problems and the real needs of the elderly, in order to provide adequate care with the provision of necessary guidance and care, using a holistic and humanized care to the sick individual and his/her family. In addition, it should act through measures such as encouraging the maintenance of basic and instrumental activities of daily living, the correct use of their medications, as well as encouraging the promotion of activities that strengthen the mental and physical health of the elderly, covering their socio-psychobiological profile.[35,36]

Although this study reached the objective of raising the available scientific evidence about the practice of self-care for elderly patients with chronic disease, one can consider a limitation of the study the limited availability of articles relevant to the subject, which evidences the need for further research, at a level of comparison regarding the evaluation of scientific aspects, enabling to relate the data obtained in the national and international literature.

This study can contribute to evidence-based practice by seeking to analyze scientific evidence on self-care practices of elderly people with chronic disease in covid-19 pandemic time and thus improve evidence-based nursing practice. Thus, it is possible to stimulate knowledge and encourage the realization of other studies relevant both to clinical practice and to the strengthening of scientific knowledge.

Final Considerations

Chronic non-communicable diseases are highly prevalent in the population group of the elderly, characterized by non-infectious etiology and prolonged course, relating to the association with physiological deterioration characteristic of this age group, being necessary even continuous drug therapies to control and maintain health status. In a pandemic context, there are certain obstacles to maintainmeasures that prioritize well-being and health, especially when such pathology prevents the normal functioning of daily activities worldwide.

Self-care practices of the elderly with chronic disease in pandemic time revealed changes in the habits and aspects affected in their daily lives and in the mechanisms of self-care. These include difficulties in performing basic and instrumental activities of daily living, the impact on diet and exercise, in addition to aspects related to socioeconomic factors and mental health.

Thus, the importance of the integrative literature review contained in this study lies in the improvement of scientific knowledge about self-care practices in a systematized and structured way, through the use of a proven and functional method for convergence and even the identification of gaps related to potential future studies.

Therefore, the maintenance of self-care practice satisfactorily consists of collaboration between health professionals and the elderly, through health education and intervention and care actions versed in specialized care. These aim at maintaining the adequate diet and regularity in the performance of physical exercises, as well as the maintenance of relevant drug therapies, in order to provide discernment and autonomy of their care to the elderly.

This synthesis of the knowledge brought by the studies included in this review reinforces the practice of self-care as an essential tool in maintaining the health of patients with chronic disease, especially for the elderly in this period of covid-19 pandemic. For this, there is a need for involvement of health professionals. Being of fundamental importance the performance of the nursing team, which provides continuous care through direct contact with patients, in order to train their patients, making them attentive to their own health. These professionals need to be aware that their practices directly interfere with the physical and mental well-being of patients, clarifying them with the best that knowledge and scientific evidence can provide to the elderly.

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References

1. Cardoso E, Dietrich TP, Souza AP. Envelhecimento da população e desigualdade. Braz. J. Political Econ. 2021; 41(1):23-43. doi: https://doi.org/10.1590/0101-31572021-3068

2. Closs VES, Augustin CH. A evolução do índice de envelhecimento no Brasil, nas suas regiões e unidades federativas no período de 1970 a 2010. Rev. Bras. Geriatr. Gerontol., 2021; 15(3): 443-58. doi: https://doi.org/10.1590/S1809-98232012000300006

3. Nasri F. O envelhecimento populacional no Brasil. Einstein [internet]. 2008 [cited 18 Out. 2021]; 6(1):S4-S6. Disponível em: https://www.prattein.com.br/home/images/stories/Envelhecimento/envelhecimento_popu.pdf

4.Ministério da Saúde (BR), Secretaria de Vigilância em Saúde. Plano de ações estratégicas para o enfrentamento das doenças crônicas não transmissíveis (DCNT) no Brasil 2011-2026. IBGE; 2011. 160 p.

5. Reis C, Barbosa LMLH, Pimentel VP. O desafio do envelhecimento populacional na perspectiva sistêmica da saúde. BNDES Set., 2016; 44, 87-124.

6. Melo SPC, Cesse EAP, Lira PIC, Rissin A, Cruz SBLC, Filho MB. Doenças crônicas não transmissíveis e fatores associados em adultos numa área urbana de pobreza do nordeste brasileiro. Cien. Saude Colet, 2019; 24(8): 3159-3168. doi: https://doi.org/10.1590/1413-81232018248.30742017.

7. Ministério da Saúde (BR), Secretaria de Vigilância em Saúde. Coordenação de Trabalho e Rendimento. Pesquisa nacional de saúde: 2019 : percepção do estado de saúde, estilos de vida, doenças crônicas e saúde bucal : Brasil e grandes regiões. IBGE; 2020. 113p.

8. VI Diretrizes Brasileiras de Hipertensão. Arq. Bras. Cardiol., 2010; 95(1): I-III, 2010. doi: https://doi.org/10.1590/S0066-782X2010001700001

9. Weschenfelder Magrini D, Gue Martini, J. Hipertensão arterial: principais fatores de risco modificáveis na estratégia saúde da família. Enferm. glob., 2012; 11(26): 344-353. doi: https://dx.doi.org/10.4321/S1695-614120120002 00022

10. Gross JL, Silveiro SP, Camargo JL, Reichelt AJ, Azevedo MJ. Diabetes Melito: Diagnóstico, Classificação e Avaliação do Controle Glicêmico. Arq. Bras. Endocrinol. Metabol., 2002; 46(1):16-26. doi: https://doi.org/10.1590/S0004-27302002000100004

11. Iser BP, Sliva I, Raymundo VT, Poleto MB, Schuelter-Trevisol F, Bobinski F. Definição de caso suspeito da COVID-19: uma revisão narrativa dos sinais e sintomas mais frequentes entre os casos confirmados. Epidemiol. Serv. Saúde, 2020; 29, (3):1-11. doi: http://dx.doi.org/10.5123/s167 9-49742020000300018.

12. Organização Pan-Americana da Saúde. Transmissão do SARS-CoV-2: implicações para as precauções de prevenção de infecção. Brasília (DF); 2020.

13. Zhang JJ, Dong X, Cao YY, Yuan YD, Yang YB, Yan YQ, et al. Clinical characteristics of 140 patients infected with SARS-CoV-2 in Wuhan, China. Allergy, 2020; 75(7):1730-1741. doi: https://doi.org/10.1111/all.14238.

14. Rastad H, Ejtahed HS, Mahdavi-Ghorabi A, Arzaghi M, Safari A, Shahrestanaki E, et al. Factors associated with the poor outcomes in diabetic patients with COVID-19. J Diabetes Metab Disord., 2020; 19(2): 1293–1302. doi: https://doi.org/10.1007/s40200-020-00646-6.

15. Strabelli TMV, Uip DE. COVID-19 e o Coração. Arq. Bras. Card. 2020; 114(4):598-600. doi: https://doi.org/10.36660/abc.20200209

16. Deng Y, Xie W, Liu T, Wang S, Wang M, Zan Y, et al. Associação da Hipertensão com a Gravidade e a Mortalidade de Pacientes Hospitalizados com COVID-19 em Wuhan, China: Estudo Unicêntrico e Retrospectivo.Arq. Bras. Card. 2021; 117(5):911-21. Doi: https://doi.org/10.36660/abc.20200733.

17. George JB, Thorell AMV. Teorias de enfermagem: os fundamentos para a prática profissional. 4 ed. Porto Alegre: Artes Médicas, 2000

18. Contatore OA, Tesser CD, Barros NF de. Autocuidado autorreferido: contribuições da Medicina Clássica Chinesa para a Atenção Primária à Saúde. Interface-Comunic., Saude, Educ., 2021; 25 (e200461). doi: https://doi.org/10.1590/interface.200461

19. Orem DE. Nursing: Concepts of practice. 4. ed. Saint. Louis: Mosby, 1991.

20. Souza MT, Silva MD, Carvalho R. Revisão integrativa: o que é e como fazer. Einstein, 2010; v. 8(1):102-106. doi: https://doi.org/10.1590/S1679-45082010RW1134.

21. Barbosa D, Taminato M, Fram D, Belasco A. Enfermagem baseado em evidências. 1. ed. São Paulo: Atheneu, 2014.

22. Page MJ, Mckenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ., 2021; 372(71). doi: https://doi.org/10.1136/bmj.n71.

23. Souza LBC, Leal MCC, Bezerra AFB, Silva ICL, Souza LCG, Espírito Santo ACG. Fatores de postergação da aposentadoria de idosos: revisão integrativa da literatura. Cien. Saude Colet., 2020; 25(10):3889-3900. doi: https://doi.org/10.1590/1413-812320202510.25702018.

24. Casp UK. CASP qualitative review checklist. Oxford: CASP UK, 2018; p.4. Disponível em: https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf

25. Stetler CB, Morsi D, Rucki S, Broughton S, Corrigan B, Fitzgerald J, et al. Utilization-focused integrative reviews in a nursing service. Appl Nurs Res., 1998;11(4):195-206. doi: https://doi.org/10.1016/s0897-1897(98)80329-7.

26. Gicovate AGP, Marins ALP, Neto CG, Shimoda E. Indicadores Bibliométricos Dos Artigos Sobre "Covid-19" Na Base Scopus. Revista FMC., 2020; 15(2):15-21, 2020. doi: https://doi.org/10.29184/19807813.rcfmc.383.vol.15.n2.2020

27. Costa ICP, Sampaio RS, Souza FAC, Dias TKC, Costa BHS, Chaves ECL. Produção científica em periódicos online sobre o novo coronavírus (COVID-19): pesquisa bibliométrica. Texto Contexto Enferm., 2020; 7(0). doi: https://doi.org/10.1590/1980-265X-TCE-2020-0235

28.Matta GC, Rego S, Souto EP, Segata J. Os impactos sociais da Covid-19 no Brasil: populações vulnerabilizadas e respostas à pandemia. In: Schuch P, Víctora CG, Siqueira MD. Cuidado e Controle na Gestão da Velhice em Tempos de Covid-19. 1 ed. Rio de Janeiro: Editora FIOCRUZ; 2021. p. 149-157.

29. Romero DE, Muzy J, Damacena GN, Souza NA, Almeida WS, Szwarcwald CL, et al. Idosos no contexto da pandemia da COVID-19 no Brasil: efeitos nas condições de saúde, renda e trabalho. Cad. saúde pública, 2021; 37(3):1-16. doi: https://doi.org/10.1590/0102-311X00216620.

30. Dias, FCF. Análise do impacto da educação em saúde no engajamento dos idosos sobre o autocuidado durante a pandemia do Covid-19 [dissertação]. Palmas: Universidade Federal do Tocantins; 2020.

31.Tiwari A, Kumar D, Ansari MS, Chaubey SK, Gupta NR, Agarwal V, et al. Impact of lockdown on self-care management among patients with type 2 Diabetes Mellitus residing in Lucknow city, India – A cross-sectional study. Clin. Epidemiology Glob. Health, 2021; 10. doi: https://doi.org/10.1016/j.cegh.2021.100703

32. Sun Z, Yang B, Zhang R, Cheng X. Influencing Factors of Understanding COVID-19 Risks and Coping Behaviors among the Elderly Population. Int. J. Environ. Res. Public Health, 2020; 17(16):5889. doi: https://doi.org/10.3390/ijerph17165889

33. Mukona DM, Zvinavashe M. Self- management of diabetes mellitus during the Covid-19 pandemic: Recommendations for a resource limited setting. Diabetes Metab. Syndr.: Clin. Res. Rev., 2020; 14. doi: https://doi.org/10.1016/j.dsx.2020.08.022

34. Moura MLS. Idosos na pandemia, vulnerabilidade e resiliência. Rev. Bras. Geriatr. Gerontol., 2021; 24(1). doi: https://doi.org/10.1590/1981-22562021024.210060

35. Barbosa MMA, Duarte RB, Nascimento CEM, Costa JB, Lima LR, Freitas KM, et al. O protagonismo da enfermagem no cuidado ao idoso em tempos de Covid-19. Braz. J. Dev., 2021; 7(8): 80075-93. doi: https://doi.org/10.34117/bjdv7n8-292.

36. Hammerschmidt KSA, Santana RF. Saúde do idoso em tempos de pandemia Covid-19. Cogitare enferm., 2020; 25(0). Doi: doi: http://dx.doi.org/10.5380/ce.v25i0.72849

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World historical evolution of covid-19 and its implications for the mental health of Brazilian nursing

Evolução histórica mundial da covid-19 e suas implicações para a saúde mental da enfermagem brasileira

Evolución histórica mundial del covid-19 y sus implicaciones para la salud mental de la enfermería brasileña

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RESUMO

Objetivo: refletir sobre a evolução histórica da covid-19 e suas implicações para a saúde mental da enfermagem brasileira. **Método:** Estudo descritivo, tipo análise teórico reflexiva, elaborado a partir de reflexões relacionadas à evolução histórica da doença do coronavírus e suas implicações para a saúde mental da enfermagem brasileira. Foi subsidiada, através de um levantamento bibliográfico no período de fevereiro a junho de 2022, considerando publicações nos últimos 5 anos, disponíveis nas bases de dados do Portal Regional da BVS, SciELO – Brasil e Portal Periódicos Capes. **Resultados:** não houve mudanças e nem a criação de micropolíticas após o período pandêmico, inerentes as atuais políticas de saúde públicas tanto voltadas à saúde do trabalhador quanto à saúde mental. Percebe-se que houve um movimento das entidades de classe para tentar mitigar tais situações, mas os profissionais continuam adoecidos e tendo que lidar com este contexto diuturnamente. **Conclusão:** mesmo diante do fim do momento pandêmico no Brasil, o cenário que se observa entre a equipe de enfermagem, ainda é de insatisfação, medo e esgotamento emocional. Logo, necessita-se de políticas públicas nacionais que abrandem os prejuízos ocasionados, não só a equipe de enfermagem, mas a todos os trabalhadores de saúde.

Descritores: Saúde Mental; Covid-19; Enfermagem; Pandemias; Profissionais de Enfermagem.

ABSTRACT

Objective: reflect on the historical evolution of the world-19, and its implications for the mental health of Brazilian nursing. **Method:** Descriptive study, type reflective theoretical analysis, prepared from reflections related to the historical evolution of covid-19 and its implications for the mental health of Brazilian nursing. It was subsidized, through a bibliographic survey in the period from February to June 2022, considering publications in the last 5 years, available in the databases of the Regional Portal of the VHL, SciELO - Brazil and Portal Periódicos Capes. **Results:** there were no changes nor the creation of micropolicies after the pandemic period, inherent to the current public health policies both aimed at worker health and mental health, it is clear that there was a movement of class entities to try to mitigate such situations, but professionals are still sick and having to deal with these situations daily. **Conclusion:** even with the end of the pandemic moment in Brazil, the scenario observed among the nursing team is still one of dissatisfaction, fear and emotional exhaustion. Therefore, national public policies are needed to mitigate the damage caused, not only to the nursing team, but to all health workers.

Descriptors: Mental Health; COVID-19 Nursing; Pandemics; Nurse Practitioners.

RESUMEN

Objetivo: reflexionar sobre la evolución histórica del covid-19 y sus implicaciones para la salud mental de la enfermería brasileña. **Método:** Estudio descriptivo, tipo análisis teórico reflexivo, elaborado a partir de reflexiones relacionadas con la evolución histórica de la enfermedad del coronavirus y sus implicaciones para la salud mental de la enfermería brasileña. Fue subsidiado, a través de levantamiento bibliográfico en el período de febrero a junio de 2022, considerando publicaciones de los últimos 5 años, disponibles en las bases de datos del Portal Regional de la BVS, SciELO - Brasil y Portal Periódicos Capes. **Resultados**: no hubo cambios ni la creación de micropolíticas después del período de pandemia, inherentes a las actuales políticas de salud pública tanto direccionadas a la salud del trabajador como a la salud mental. Es notable que hubo un movimiento de entidades de clase para tratar de mitigar tales situaciones, pero los profesionales siguen enfermos y teniendo que lidiar con este contexto a diario. **Conclusión:** aunque se acerque el fin de la pandemia en Brasil, el escenario observado entre el equipo de enfermería sigue siendo de insatisfacción, miedo y agotamiento emocional. Por lo tanto, se necesitan políticas públicas nacionales para mitigar los daños causados, no solo al equipo de enfermería, sino a todos los trabajadores de la salud.

Descritptores: Salud Mental; Covid-19; Enfermería; Pandemias; Profesionales de enfermería.

REVIEW

Introduction

The world has faced and is facing a major health challenge in the face of the pandemic triggered by the new coronavirus (SARS-Cov2), which causes the infectious disease covid-19, being evidenced for the first time in 2019 in Wuhan province, China. Unlike other diseases caused by coronavirus, covid-19 is characterized as a highly transmissible disease among individuals who may or may not have symptoms.[1]

Nevertheless, the World Health Organization (WHO) characterized covid-19 on March 11, 2020 as a pandemic. Although i don't know exactly when the first cases appeared in Brazil, it was officially reported on February 25, 2020 in São Paulo. On March 16, 2020, the first death caused by the virus was reported and on May 22 of the same year, Brazil became the second country with the highest number of cases in the world, second only to the United States. On this same date, there were already 2,227,514 confirmed cases, more than 82,000 deaths with a lethality rate of around 3.7%.[2-3]

Moreover, with regard to nursing, according to the Federal Nursing Council (Cofen), the number of professionals in the infected area increased by 660% in the second half of April 2020, and most of these professionals are between 31 and 40 years of age, and 83% are women, making up most of the category.[4]

Thus, due to this emergency, Cofen ordered the National Mental Health Nursing Commission to provide care for nurses, doctors or masters, specialized in mental health, to nursing professionals who worked on the front line of the pandemic.[1]

These actions were justified in view of the emergence of diseases with high risk of death caused by covid-19, which led to an increase in psychological pressure for health professionals. Since during this period there was an increase in working hours, physical fatigue, lack of Personal Protective Equipment (IE), high hospital transmissibility and the need for difficult decisions about the care that could and can provide an improvement in their physical and mental well-being.[2,5]

In view of this, the historical evolution of covid-19 occurred in Brazil and in the world. And yet, how is the current Brazilian mental health scenario of nursing professionals who are and were on the front line to combat the covid-19 pandemic?

This study has as relevance the reflexive of the world historical evolution of covid-19 and the consequences of the pandemic period on the mental health of nursing professionals in Brazil and aims to reflect on the worldwide historical evolution of covid-19, and its implications for the mental health of Brazilian nursing.

Method

Descriptive study, type reflexive theoretical analysis6, developed from two fundamental questions related to the historical evolution of covid-19 and the consequences of the pandemic period on the mental health of nursing professionals in Brazil. To support this reflection, a bibliographic survey was conducted from February to June 2022, considering publications from the last 5

years, available in the databases of the Regional Portal of the VHL, SciELO - Brazil and Portal Periódicos Capes (CAPES).

Controlled descriptors in Health Sciences were used in their combinations in Portuguese, English and Spanish : "Mental Health", "Mental Health", "Mental Health"; "Covid-19", "Nursing", "Nursing", "Nursing"; "Pandemics", "Pandemics", "Pandemics"; "Nursing Professionals", "Nurse Practitioners","Practicing Sick".

Once it is a reflection article, with data available in these databases, in the public domain, the need to submit the study to ethical procedures is excluded.

Results and Discussion

It is not now that the coronavirus circulates around the world, and that it makes numerous fatalities throughout its history. Coming from a family of viruses that cause respiratory infections, it is known scientifically as Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV). Nevertheless, there are records in its trajectory of subdivisions called betacoronavirus which are: severe acute respiratory syndrome (SARS-CoV) that in 2002 affected more than 8,000 people with a lethality rate of around 10% and middle eastern respiratory syndrome (MERS-CoV) which in 2012 infected more than 2,500 people with a lethality rate of around 34%.[7,8]

In addition, in November 2002, the disease caused by the virus attracted worldwide attention when infected people in Guangdong City, China, had a condition that was initially named as "mysterious pneumonia", triggering 2,718 notifications and 111 deaths between the periods of March to April 2003.[8]

In this context, a research on SARS-CoV, published in December 2003, showed that the World Health Organization (WHO) already pointed out 8,096 cases of the disease in 29 countries, culminating in 774 deaths, in which it caused social disorders and fear, weakening health systems, submerging economies and afflicting the daily lives of several people.[8]

It is emphasized that since the first epidemics of the SARS virus in 2003, other types of SARS-CoV have been evidenced in its natural host, which is the bat, and many of these have high potential to infect humans and because it is considered the main coronavirus receptor.[9]

In line with, other speculations tend that the probable origin of SARS-CoV-2 occurred from bats, and laboratory studies have revealed that SARS-CoV and SARS-CoV-2 have 76.9% similarity in their genome and 96% in relation to bat coronavirus, since both use the same angiotensin II-converter-converter enzyme as the incoming SARS-CoV. However, this is only a hypothesis, as the intermediate host of SARS-CoV-2 remains unknown.[10]

However, a few years later, in 2005, Shiegeru Omi director of the WHO Pacific recognizes through his report that the SARS-CoV would shudder at the world, and because of this, the virus was termed as the "first plague of the 21st century", which despite infecting a small number of individuals, counted a high mortality rate.[11-12]

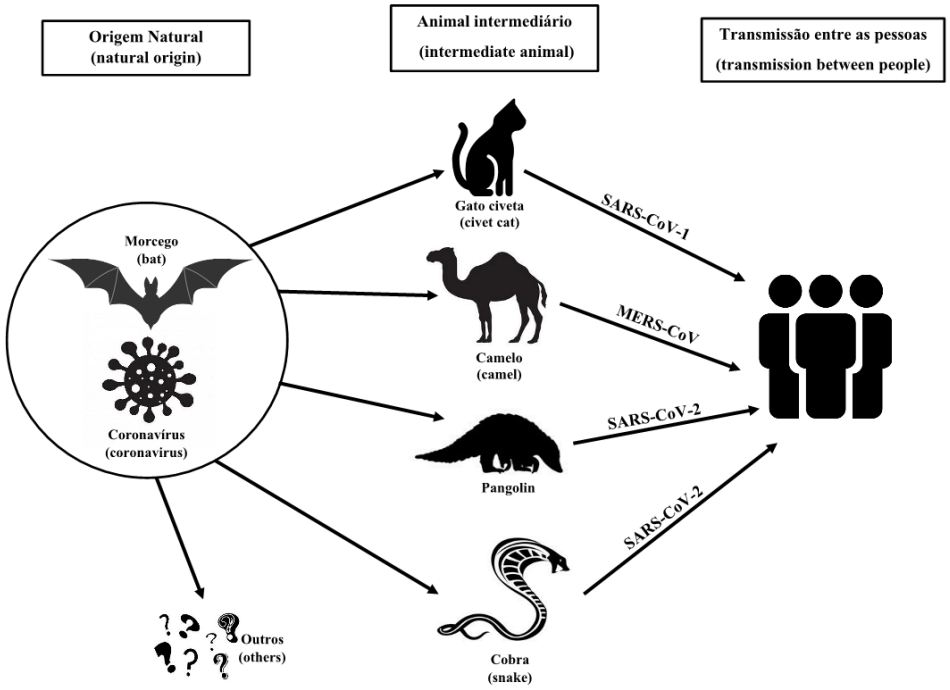
On the other hand, it is also believed in the hypothesis, that due to eating habits that are part of the culture of some countries, such as China, for example. In Chinese tradition, the consumption of meat from wild animals is considered by them a practice with medicinal value, such as the civet cat, the camel, snake,

pangolin, among other wild animals, as hosts of various combinations of SARS-CoV.[9-10,13]

Among these aforementioned animals that can carrying Genomes of SARS-CoV, one of the hypotheses is that before the virus reaches humans, supposedly a transmission from pangolin, a mammal very similar to the ball-tatu, and which is the victim of illegal wildlife trafficking. It was the last suspicious animal surveyed, given that scientists found a 99% similarity in its coronavirus, with what is present in humans, however, there has not yet been a scientific confirmation of this assumption.[9]

Moreover, the fact that these animals harbor these pathogens, thus, it is believed that they may be hosts that subsidized such infections as explained in Figure 1.

Figure 1- Pathways summary of possible origins of Covid-19. Brazil, 2022.



Source: Adamante et al., 2021; Zaongo, Ouattara, 2022; Rehab et al. 2022.

Nevertheless, in December 2019, in Whuan, China, physician Li Wenliang, an ophthalmology specialist, treated seven patients with clinical manifestations similar to those of SARS-CoV. He tried to warn some colleagues about this new outbreak that was taking place and asked everyone to use safety devices to prevent contamination, and it was at this point that The SARS-CoV-2 (covid-19) was first revealed.[8]

Regrettably, this warning was ignored and the Chinese doctor was intimidated by the police of Wuhan (China) on charges of illicit rumors, being forced to sign a term recognizing his infraction and ensuring not to repeat this act again.[8]

In the face of preliminary investigations, it was found that the first groups of people infected with SARS-CoV-2 took place in the seafood market in Wuhan (China). Ahead of this situation, the market was closed and disinfected on January 1, 2020.[10] This infection occurred because small animals were marketed in this seafood market, and the WHO in a preliminary environmental study

collected environmental samples and the results tested positive for the new coronavirus.[10] Then, there were warnings about potential emerging diseases of animal origin in wetlands of several other markets in the Wuhan region (China), and this warning was not met by local authorities in the region.[10]

Moreover, the first case reported to the WHO about this new disease in Wuhan (China) only occurred on December 31, 2019 and little was known about the etiology of the new disease and its spread among people. After all, this new virus seemed restricted only to that region, after analysis by a team of experts that was sent by the Chinese government to the city.[8]

Only on January 5, 2020, after the information passed on by the Chinese authorities was collected, who disclosed the conditions of infected patients, the treatment, measures and research put in place by the Chinese to cope with the new disease.[8]

Even in the face of this whole scenario, the country refrained from applying any restrictions on containment to the virus, including allowing travel and free trade to China. Following, only after two days to this date, the first genetic sequencing data of SARS-CoV-2 (covid-19) were announced by Chinese scientists, and on January 11 of this same year came the news of the first fatality victim in the country. From this moment on it was considered an outbreak of sanitary emergency.[8]

Thus, with the emergence of the mutation of the new coronavirus, SARS-CoV-2 (covid-19), the disease would be characterized as the third epidemic on a large global scale of the current century. In this context, in February 2020, it would be reported worldwide the inauguration of a hospital in Whuan (China), with an area of about 25,000 m², with capacity for 1,000 beds and consisting of a medical team of 1,400 people, and the region was the epicenter of the new disease, which had spread abruptly.[8]

However, the doctors of this city were unaware of the new characteristic condition of pneumonia when they had the first contact with people infected by the new variant of SARS-CoV, and signs and symptoms were observed characterized by: dry cough, high fever and dyspnea, and many of them ended up evolving to a severe respiratory infectious condition.[8]

Unfortunately, the health authorities did not pay close to the experience experienced in relation to population infection and deaths caused by the ancient betacoronavirus (SARS-CoV and MERS-CoV) and its high lethality rate, and they would never imagine the worldwide collapse that the new virus would cause.[8]

In addition, in January 2020 came the news that everyone feared, the SARS-CoV-2 (covid-19) had extrapolated the currencies of China and the first occurrences of the disease was reported in Korea, Japan and Thailand. It was only from this moment on that the first decisions to contain the virus began to be disclosed and executed.[8]

As a result, countries neighbouring China have begun to close their borders, restricting the entry of travelers from China, including quarantined passengers on board 8 ships. Faced with the chaotic scenario that was beginning to be reported in the world due to the new virus, other countries imposed restrictions on travelers from China, airlines began to suspend their flights to the country and guided the immediate departure of their citizens, including drawing up plans for resgastes in Chinese cities affected by the disease.[8]

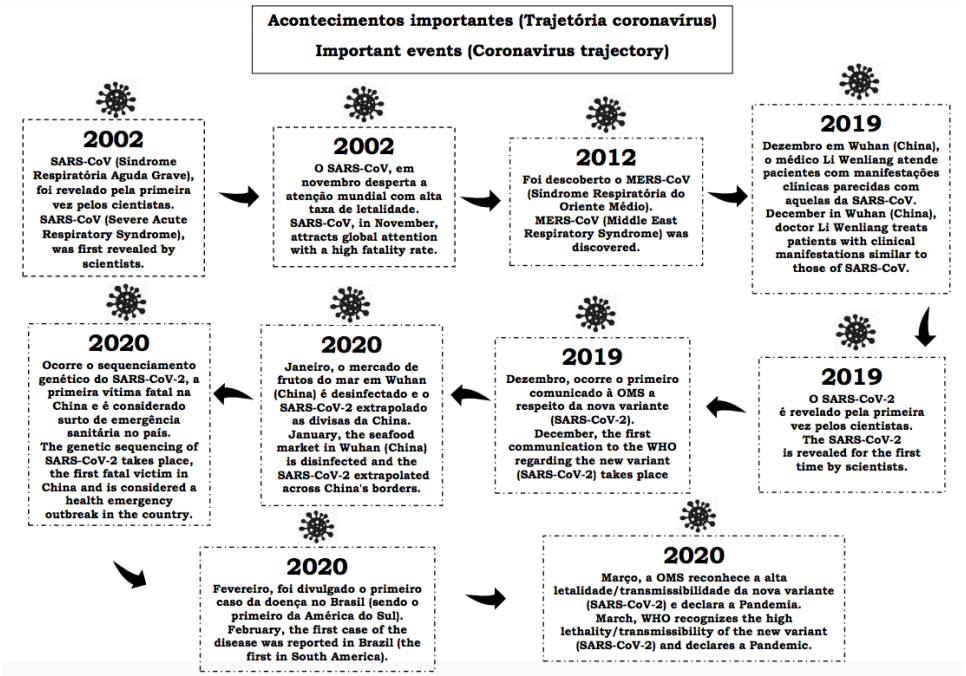
Therefore, such restrictions and recommendations were imposed to avoid transmission, one of them was the use of masks suddenly, which was one of the items that came to be present in transport, parks, schools and shops. Thus, the streets of several cities began to empty, through laws that forced their citizens to be in social isolation.[8]

In March 2020, who recognized the high lethality/transmissibility of the new variant of coronavirus and proclaimed the global pandemic, which would resonate in the social and economic scenario of the entire planet.[8]

A few months later, by June 10, 2020, the new virus had already infected more than 7 billion people worldwide and scientists from various countries were racing against time to figure out a way to stop the speed of spread and contamination among individuals.[7]

In Brazil, on February 25, 2020, the first case of the disease was reported, being the first country in South America, to notify the presence of SARS-CoV-2 (covid-19). Faced with the chaos that was already in place in the world, the Minister of Health, Luiz Henrique Mandetta, in an official statement, officialized the first case of the disease and asked all Brazilians to remain calm and explained that the new disease was a kind of flu and that measures would be adopted based on science to try to contain the spread of the virus in the best possible way.[8] Figure 2 shows the important events about coronavirus in the world.

Figure 2 - Coronavirus trajectory in the world. Brazil, 2022.



Faced with such statements by the minister, an instability was established, while some people calmed down before the declaration, for another large majority, tempers have stirruped, and the world was in a scenario of expansion of the disease, and at this time The SARS-CoV-2 (covid-19), had already spread to at least five continents.[8]

Unfortunately, what was inevitable happened: the disease grew exponentially and the number of patients and fatal victims became surreal. The virus spread in such an unbelievable way that it caused the collapse of health

services and the despair of the professionals who worked there in the face of something unknown. The new disease caused uncontrolled deaths, without the right to leave, to the point of forcing burials to be carried out collectively.[8]

Morgues and hospitals cummyed bodies of victims waiting for a destination, without the slightest amount of dignity. The pandemic has arrived like an erupting volcano, emitting silent signals that have not been observed and that, upon suddenly entering activity, destroy with their scorching lavas everything that stands in their way.[8]

Given the emergence and confirmation of the new coronavirus in Brazil, in June 2020, the number of people infected was alarming, with 805,649 cases of infected people and 41,058 deaths already known. The impact that covid-19 caused to the country, generated several challenges in the health system that was mostly deficient and was far from providing efficient and quality care to the population.[14]

In addition, there were several obstacles: the lack of doctors, nurses, medicines and the quantity of insufficient beds to meet the high demand.[11] Ahead of all these situations, public managers had the challenge of establishing effective communication with citizens about the risks of contagion of SARS-CoV-2 (covid-19), and the excessive amount of wrong or false information "infodemia" contributed to the increased insecurity, fear and indignation of society.[14]

On the other hand, the disorganized and foolish confrontation by the competent health authorities in the fight against covid-19 would have serious consequences in increasing the number of cases and deaths, especially to the poorest and most vulnerable. It is concluded that political, social, economic and sanitary irresponsibility placed the country in the second world position in absolute numbers of infected and killed in June 2020 (1,603,055 and 64,867 respectively), because even after the enactment of laws, provisional measures and other instruments, these actions continued to have little effectiveness.[14]

Furthermore, the opposition between the head of the Executive Branch and the Minister of Health, in which the President of the Republic attacked the instructions of the Ministry of Health, governors and mayors, was something that further worsened the epidemic situation in the country and caused chaos and confusion in the population regarding the severity that the disease could cause.[14]

Faced with all this devastating scenario, managers and researchers had the challenge of finding public and health health policies in order to avoid the total collapse of the health system and reduce the number of infected and deaths, namely: social distancing, the quarantine of contacts and the strengthening of the surveillance system in the three levels of care of the Unified Health System (SUS) for the strengthening of health networks.[11]

Inevitably, in view of all the failures to cope with control of the SARS-CoV-2 virus (covid-19), the disease ended up causing the largest hospital and sanitary collapse in the recent history of Brazil.[15] Thus, in order to be able to provide the necessary care to people who sought health institutions, a diversified demand of professionals and support groups was demanded, among them the nursing team, which was on the front line of care.[15-16]

Due to this panorama, nursing began to experience a greater and atypical pressure, in which they required complex care that required technique, science, feelings and human relationships in the face of a disease that was little known.[16]

In addition, nursing lived a unique moment, such difficulties already known were elucidated due to the pandemic of the covid-19, in which the circumstances included long working hours, lack of EPIs, fear of contracting the disease and infecting other people, and being in an environment with patients diagnosed or presumptive of SARS-CoV-2 (covid-19).

Due to the high transmissibility of the virus, providing assistance became something frightening, as well as many feelings such as: worry, stress, impotence, fear, anguish, anger, anxiety, insecurity, despair, depression, mood swings, uncertainties. This mix of feelings can provoke in these workers pathologies such as: acute myocardial infarction, psychiatric and neurological mental disorders, depressive syndromes, gastritis, somatic diseases, panic syndrome, hypertension and the most recurrent of all that is burnout syndrome. All this only generated uncertainty, for unfortunately it was not known what was to come.[18]

All these situations caused by occupational stress in which human suffering and adversities were in the sharing of knowledge among the nursing team, generating a high psychological pressure on the part of patients and managers, resulting in a large number of professional licenses.[18]

Nevertheless, the group of nursing professionals in the country corresponds to approximately 2.2 million workers, and in a survey conducted by Cofen in April 2020, there were 1,203 cases of infected and 18 deaths in the category. These figures are likely to be much higher because they are a voluntary notification in relation to covid-19.[15]

Then, in the face of all these catastrophes and outbursts of feelings, nursing collaborators suffered from negative impacts on their mental health related to the work environment. These psychic sufferings directly affected the lives of these employees in the psychosocial context and their well-being, causing a situation of mental suffering.[16]

In line with the incessant increase in the number of infected people in Brazil, the Nursing Team still faced instillable occupational situations in the work environment, such as: poor working conditions, lack of care, high expectations, excessive working hours, low salaries, social discrimination, lack of recognition, scarcity of IPEs, limited numbers of beds in Intensive Care Units (ICUs), mechanical fans and insufficient number of workers to meet high demand.[15-16]

All these aspects ended up potentiating the bad feelings already experienced, opportunistizing despair and lack of motivation to continue.[2,15] Moreover, it is emphasized that nursing professionals felt abandoned by the public authorities and the competent authorities, because to provide quality care to infected patients, minimal resources and equipment were required, and when this is not offered qualitatively and quantitatively enough in hospitals, it ends up bringing greater risks of contamination for these workers.[2,19]

These factors contribute negatively to the illness of this category, generating physical and psychological dysfunction[2,20]. And, in view of the above, it is indoubted that it is necessary to observe all the angles intrinsic to the mental illness of these workers, because they are part of the main front line in the fight the SARS-CoV-2 (covid-19). The fact is that these are the protagonists of health, since they are directly managing the care of sick individuals and bearing all the burden of the burden that the pandemic has caused in the lives of Brazilians.[1,20]

Thus, it is necessary through public policies, the implementation of training, protection, security and availability of relevant psychological services that can welcome them in the best possible way, especially in the administration of factors that can contribute to better working conditions, salaries, professional recognition, with the objective of offering better living conditions. In a positive way, the execution of all these factors will generate a more humanized care for all people who need the care of the Nursing Team.[2,20]

It is noteworthy that Cofen requested that the National Mental Health Nursing Commission offer to all nursing professionals who are at the forefront in combating SARS-CoV-2 (covid-19) specialized mental health care, in which it contains a team of specialist nurses, masters and doctors in mental health1,2. These services are regulated by Law No. 7498/86 and COFEN Resolutions of N's^{o} 564/2017 and 599/2018.[1,2]

Aiming to encourage and facilitate these cares, a field was created on the official cofen website, described as Live Chat, in which the professional who wishes to dialogue with the nurse qualified in mental health, in which just click on the dialog box, inform their personal data with name and professional registration, then will be directed to care.[1,21]

This type of care was available 24 hours a day, on seven days of the week and allowing up to five visits simultaneously, also some Regional Nursing Councils such as coren de Minas Gerais created similar strategies.[1,21]

It is worth noting that the Ministry of Health, too, had already been developing public policies to strengthen and implement Telemedicine and Telehealth for the Brazilian population and health workers linked to covid-19, which was: TeleSUS, which was a teleconsultation channel for the covid-19 available to the population, teleconsultations in mental health and health in general for health professionals in Brazil (Telepan), aimed at those on the front line during the pandemic, operationalized by the Brazilian Association of Neuropsychiatry (ABNP) and the Federal University of Minas Gerais (UFMG) and TelePsi, directed to care for health professionals involved in combating coronavirus.[22]

In time, there was the implementation, through groups of volunteer psychologists, of the practice of psychoeducational actions in the distribution of virtual booklets, software, audios, video classes, e-books, manuals and platforms with informative guides, as well as the performance of psychological shifts in several university hospitals of various Brazilian states.[22]

Then, even in the face of Brazil's access to vaccines produced against SARS-CoV-2 (covid-19), the context of the health crisis was maintained due to the lack of support by the Federal Government, which caused a nationwide disorder of vaccination strategies, since the country, until then, is recognized worldwide for having one of the largest and most complete immunization programs in the world.[23]

According to the researcher of the Oswaldo Cruz Foundation (Fiocruz), Julio Croda, who was leading research on the epidemiological situation of SARS-CoV-2 (covid-19), in relation to the response to vaccines, states that the pandemic scenario is nearing its end, after more than two years living with the coronavirus, and immunobiologicals, together with socio-educational measures, are the largest responsible for this mitigation.[24]

However, even in the face of this new scenario that promotes the feeling of returning to normality, given the fall in the number of infected and deaths, as well as relaxation of measures to contain the virus, health professionals remain fragile, exhausted and hopeless.[24]

In addition, Gabriela Lotta, professor of Public Administration and Government at the Getúlio Vargas Foundation (FGV), comments that the prospects were that these health professionals would learn to deal with the disease and that they would feel more safe and less fearful and cause less damage to their mental health, since 80% said in an interview that their mental health was negatively affected.[24]

One of the phrases that drew the attention of Gabriela Lotta in an interview with these professionals, is that they are like "abandoned soldiers in the field of war", in criticism against the lack of implementation of specific public policies for this situation[24]. Therefore, weariness, stress, stress, indignation, dissatisfaction, injustice and emotional exhaustion, still remain the main feelings indicative of suffering in the lives of these workers.[25]

Nevertheless, the pandemic of SARS-CoV-2 (covid-19), in Brazil, unfortunately provoked and continues to cause mental illness and deaths among health professionals, especially nursing professionals. Therefore, the creation and implementation of effective public policies by the competent authorities that encompass the pandemic and post-pandemic period, is indispensable to monitor the evolution of suffering in these individuals and the negative effects they cause on their mental health, in order to provide the best and most appropriate care.[25]

In this context in brazil, the National Mental Health Policy (PNSM), which is a resource of the Federal Government ordered by the Ministry of Health, which aims to provide assistance to people who need treatment and mental health care. This program includes attention to individuals with mental disorders, which are of intensity: mild, moderate or severe.[3]

Therefore, care occurs via the Psychosocial Care Network (RAPS), which is composed of numerous units, made available in an integral and free way, integrated into the public health network.[3]

Moreover, the mental health care practices of health professionals, who were and/or remain at the forefront in combating SARS-CoV-2 (covid-19), should be adapted within the PNSM, as a way of implementing a national public policy to serve all health workers who need this type of support, promoting the relief of the psychosocial suffering of these employees.[3]

Besides, there is also the National Policy for the Prevention of Self-Mutilation and Suicide, implemented by the Federal Government through Law No. 13,819 of April 26, 2019, which aims to treat and prevent the practice of self-mutilation and suicide, as well as the conditions associated with them.[25]

Immediately, it is also necessary to develop public policies aimed at nursing employees who are on the front line in the fight against covid-19, integrated with the National Policy for the Prevention of Self-Mutilation and Suicide, due to the illness in their mental health, they may be very vulnerable to such practices.[26]

Moreover, it is essential to highlight the National Worker Health Policy, which aims to define the principles, guidelines and strategies to be observed holistically with a tripartite dimension, aiming at promoting and protecting workers' health, minimizing morbidity and mortality resulting from

development and productive processes, which were also not considered in the pandemic period.[20,27-28]

It is important to point out that there were no changes or the creation of micropolicies after the peak of the pandemic period, inherent to current public health policies, both focused on workers' health and mental health, it is perceived that there was a movement of class entities to try to mitigate such situations, but many of these support programs created were discontinued, however, in the end, professionals remain sick and having to deal with these situations daily. This support, in most cases, was mediated by the team itself that was on the front line, in an obstacle to the abandonment of government agencies. This support was through interpersonal relationships, friendship relationships that managed to form a social and psychological support network with the intention of preserving feelings of esteem, perseverance and helped in coping with the adversities caused by the pandemic.[29-31]

In addition, as a breath of mercy and recognition, finally after more than 30 years of struggle for the nursing category, came the presidential sanction of PL 2564/20, on 04/08/22, which creates the salary floor of the nursing team (nurses, nursing technicians, nursing assistants and midwives). This, for Brazilian nursing, creates a breath of hope, because it is expected that from now on it can be mitigated and recognized by the many historical achievements of nursing before, during and after the pandemic period of covid-19.[32]

Through the type of study presented, it is important to highlight that the proposed reflection questions remain under the results of new evidence, seeking more specificities regarding the promotion of mental health for both nurses and the Brazilian population.

Final Considerations

Coronavirus (SARS-CoV) has been circulating around the world for some years, in which it belongs to a family of viruses that cause acute respiratory infections. In records of its trajectory, there are subdivisions of the virus that were called betacoronavirus, which mentions the SARS-CoV, identified in 2002, the MERS-CoV, discovered in 2012 and the SARS-CoV-2, revealed in 2019.

We emphasize that in the face of eating habits that are present in the culture of some countries, in which meat is consumed from wild animals such as bat, pangolin, civet cat, camel, snake, among other animals. Nevertheless, scientists believe that it was from this feeding practice that transmission to humans occurred, because these animals have the virus in their body.

In relation to mental health of Brazilian nursing professionals, it was highlighted that there were only implementations of specific projects as a form of care, namely: the Live Chat, made available by Cofen, telepsi (research project that offers online psychotherapy, completely free of charge, made available throughout the country by the Ministry of Health and Hospital de Clínicas de Porto Alegre, with the objective of providing assistance to Health professionals of the SUS with emotional distress in this moment of pandemic, teleconsultations in mental health and health in general for health professionals in Brazil (Telepan) who are on the front line during the pandemic, operationalized by ABNP and UFMG and psychological care offered by voluntary psychologists. These initiatives, unfortunately, were not sufficient to achieve satisfactorily the

necessary care for all nursing professionals who are on the front line and who need psychological support with the intention of reducing the negative burden that impacts their mental health, in addition to many of them were discontinued.

It is admitted that, even before the end of the pandemic moment in Brazil, the scenario observed among the nursing team is still one of dissatisfaction, fear and emotional exhaustion.

The current circumstances require national public policies that effectively support not only the nursing team, but all health workers who are on the front line in the fight against covid-19, with the purpose of reducing/ceasing the mental illness caused.

Thus, one way to mitigate the lack of care for these professionals is through the creation of micropolicies, the implementation of specific care for all health professionals who are/have been on the front line in the fight against SARS-CoV-2 (covid-19) and who are sick, in order to integrate with existing programs for this purpose, they are directly the National Mental Health Policy and the National Policy for the Prevention of Self-Mutilation and Suicide, and indirectly, the National Policy of Workers' and Workers' Health.

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References

1. Humerez DC, Ohl RIB, Silva MCN. Saúde mental dos profissionais de enfermagem do Brasil no contexto da pandemia covid-19: ação do Conselho Federal de Enfermagem. Cogitare enferm. 2020;25:e74115. Doi: https://dx.doi.org/10.5380/ce.v25i0.74115

2. Santos KMR, Galvão MHR, Gomes SM, Souza TA, Medeiros AA, Barbosa IR. Depressão e ansiedade em profissionais de enfermagem durante a pandemia da covid-19. Esc. Anna. Nery. 2021; 25(spe). Doi: https://doi.org/10.1590/2177-9465-EAN-2020-0370

3. Ministério da Saúde. Saúde Mental. Brasília; 2020 [acesso em 2022 maio. 2]. Disponível em: https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/s/saude-mental

4. Conselho Federal de Enfermagem. Covid-19 faz vítimas entre profissionais da saúde no Brasil. Brasília; 2020 [acesso em 2022 maio. 4]. Disponível em: http://www.cofen.gov.br/covid-19-faz-vitimas-entre-profissionais-da-saude-no-brasil_78979.html.

5. Xingyue S, Wenning F, Xiaoran L, Zhiqian L, Rixing W, Ning Z, et al. Mental health status of medical staff in emergency departments during the Coronavirus disease 2019 epidemic in China. Brain, Behavior, and Immunity. 2020; 88:60–65. Doi: https://doi.org/10.1016/j.bbi.2020.06.002

6. Lemos, GC. A cultura de segurança do paciente no âmbito da enfermagem: reflexão teórica. Rev enfer centro-oeste min. 2018:e2600. Disponível em: http://dx.doi.org/10.19175/recom.v8i0.2600

7. Carvalho TA, Marson FAL. O cenário dos dados epidemiológicos descritivos e a importância para o controle da pandemia da covid-19 no Brasil. Rev Epidemiol Control Infect. 2020;10(4). EPUB. 10 abril 2020.

8. Marques RC, Silveira AJT, Pimenta DNA. A pandemia de Covid-19: intersecções e desafios para a História da Saúde e do Tempo Presente. In: Reis TS et al, organizadoras. Coleção História do Tempo Presente. Roraima: Editora UFRR; 2020;3:225-249.

9. Rehab RA, Christos T, Imran Z, Aikaterini T. Epidemiology of Covid-19. In: Goswami S, Dey C, organizadores. COVID-19 and SARS-CoV-2: the science and clinical application of conventional and complementary treatments. Boca Raton: Taylor & Francis Group and informa business; 2022;63-78. Doi: https://doi:10.1201/9781003178514-7

10.Zaongo SD, Ouattara D. Covid-19: The Origin. Acta Scientific Pharmaceutical Sciences 2022;6(1): 15-17. Disponível em: https://www.researchgate.net/ publication/357700724_COVID-19_The_Origin

11. Aquino EML, Silveira IH, Pescarias JM, Aquino R, Souza-Filho JÁ, Rocha AS, et.al. Medidas de distanciamento social no controle da pandemia de COVID-19: potenciais impactos e desafios no Brasil. Ciênc. saúde coletiva.2020; 25(Supl.1):2423-2446.Doi: https://doi:10.1590/141381232020256.1.1050 2020

12.Bezerra ECD, Santos PS, Lisbinski FC, Dias LC. Análise espacial das condições de enfrentamento à COVID-19: uma proposta de Índice da Infraestrutura da Saúde do Brasil. Ciênc. saúde coletiva. 2020;25(12):4957-4967.Doi: https://doi:10.1590/1413-812320202512.34472020

13.Adamante D, Leichtweis TM, Naconeski S, Sacoman S, Garlini MA, Mattana MRA, et al. Relação do coronavírus com os animais – revisão de literatura. Arquivos de Ciências Veterinárias e Zoologia da UNIPAR. 2021;24(2):e2402. Doi: https://doi.org/10.25110/arqvet.v24i2cont.2021.8146

14.Fonseca MN, Ferentz LMS, Cobre AF, Momade DRO, Garcias CM. Avaliação do nível de percepção dos riscos de infecção pelo SARS-CoV-2 e da acessibilidade a informações sobre a Covid-19 no Brasil. Reciis. 2021;15(2):379-396. Doi: https://doi.org/10.29397/reciis.v15i2.2157

15.Miranda FMD, Santana LL, Pizzolato AC, Saquis LMM. Condições de trabalho e o impacto na saúde dos profissionais de enfermagem frente à Covid-19. Cogitare enferm. 2020;25:e72702. Doi: https://dx.doi.org/10.5380/ce.v 25i0.72702

16.Miranda FBG, Yamamura M, Pereira SS, Pereira CS, Protti-Zanatta ST, Costa MK, et.al. Sofrimento psíquico entre os profissionais de enfermagem durante a pandemia da COVID-19: Scoping Review. Esc. Anna. Nery.2021;25(spe): e20200363. Doi: https://doi.org/10.1590/2177-9465-EAN-2020-0363

17.Dresch LSC, Paiva TS, Moraes IIG, Sales ALLF, Rocha CMF. A saúde mental do enfermeiro frente à pandemia covid-19. Enferm. Foco 2020;11(6):14-20. Disponível em: http://revista.cofen.gov.br/index.php/enfermagem/article/ view/3675/1050.

18.Moraes Filho IM, Sá ES, Carvalho Filha FSS, Sousa JA, Pereira MC, Sousa TV. Medo, ansiedade e tristeza: principais sentimentos de profissionais da saúde na pandemia de COVID-19. Saud Coletiv (Barueri) 2021;11(COVID):7073-84. Doi: https://doi.org/10.36489/saudecoletiva. 2021v11iCOVIDp7073-7084

19.Carvalho Filha FSS, Moura MEB, Santos JC, Silva MVRS, Moraes Filho IM, Nascimento FLSC, et.al. Nem glamour dos super-heróis, nem aplausos nas janelas: a realidade vivenciada por enfermeiros na linha de frente de combate à Covid-19 no Brasil. Rev Enferm Atual In Derme 2021;95(34):e-021053. Doi: https://doi.org/10.31011/reaid-2021-v.95-n.34-art.973

20.Moraes Filho IM, Almeida RJ. Estresse ocupacional no trabalho em enfermagem no Brasil: uma revisão integrativa. Rev Bras Promoç Saúde 2016;29(3):447-454. Doi: https://doi.org/10.5020/18061230.2016.p447

21.Amaral GG, Silva LS, Oliveira JV, Machado NM, Teixeira JS, Passos HR. Suporte ético-emocional à profissionais de enfermagem frente à pandemia de COVID-19: relato de experiência. Esc Anna Nery. 2022;26(spe): e20210234.Doi: https://doi.org/10.1590/2177-9465-EAN-2021-0234

22.Ramos-Toescher AM, Tomaschewisk-Barlem JG, Barlem ELD, Castanheira JS, Toescher RL. Saúde mental de profissionais de enfermagem durante a pandemia de COVID-19: recursos de apoio. Esc Anna Nery. 2020;24(spe): e20200276. Doi: https://doi.org/10.1590/2177-9465-EAN-2020-0276

23.Maciel E, Fernández M, Calife K, Garrett D, Domingues C, Kerr l, et al. A campanha de vacinação contra o SARS-CoV-2 no Brasil e a invisibilidade das evidências científicas. Ciênc. saúde coletiva.2022;27(3):951-956.Doi: https://doi:10.1590/1413-81232022273.21822021

24.Fernandez M, Lotta G, Passos H, Cavacanti P, Corrêa MG. Condições de trabalho e percepções de profissionais de enfermagem que atuam no enfrentamento à covid-19 no Brasil. Saúde Soc. São Paulo 2021;30(4): e201011. Doi: https://doi:10.1590/S0104-12902021201011

25.Baptista PCP, Lourenção DCA, Silva-Junior JS, Cunha AA, Gallasch CH. Indicadores de sofrimento e prazer em trabalhadores de saúde na linha de frente da COVID-19. Rev Latino-Am. Enfermagem 2022;30:e3555. Doi: https://doi:10.1590/1518-8345.5707.3555

26.BRASIL. Lei nº 13.819, de 26 de abril de 2019. Institui a Política Nacional de Prevenção da Automutilação e do Suicídio, a ser implementada pela União, em cooperação com os Estados, o Distrito Federal e os Municípios; e altera a Lei nº 9.656, de 3 de junho de 1998. Vigência. Brasília, DF: Diário Oficial da União, 26 abr. 2019. Seção 1, p. 1.

27.Brasil. Portaria nº 1823/12. Institui a Política Nacional de Saúde do Trabalhador e da Trabalhadora. Brasília: Ministério da Saúde; 2012.

28.Soares A, Menezes RF. Coronavírus no Brasil: a marcha da insensatez. Saúde Soc. São Paulo 2021;30(2):e200653. Doi: https://doi:10.1590/s0104-12902021200653

29.Moraes-Filho IM, Sousa TV, Carvalho-Filha FSS, Pereira MC, Vilanova JM, Silva RM. Fatores sociodemográficos e emocionais associados à tolerância nas relações de amizade na pandemia pela COVID-19. Rev. Enferm. UFSM.2021;11(2):1-17. DOI: https://doi.org/10.5902/2179769253180

30.Silva RM, Moraes-Filho IM, Valóta IAC, Saura APNS, Costa ALS, Sousa TV, Carvalho-Filha FSS, Carvalho CR. Nível de tolerância nas relações de amizade em profissionais de saúde durante a pandemia da COVID-19. REVISA. 2020; 9(Esp.1): 631-45. Doi: https://doi.org/10.36239/revisa.v9.n Esp1.p631a645

31.Moraes Filho IM, Sousa TV, Lima TP, Carvalho Filha FSS, Pereira MC, Silva RM. Variáveis sociodemográficas associadas à mudança na tolerância nas relações de amizade na pandemia pela COVID-19. Rev baiana enferm. 2020;34:e38396.

32.Brasil. Presidência da República. Lei nº 14.434, de 4 de agosto de 2022. Altera a lei nº 7.498, de 25 de junho de 1986, para instituir o piso salarial nacional do enfermeiro, do Técnico de Enfermagem, do Auxiliar de Enfermagem e da Parteira. Diário Oficial da União, Brasília, 05 ago. 2022. Seção 1, p. 3.

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Pregnancy: implications for the pregnant woman's life

Gestação: implicações na vida da gestante

Embarazo: implicaciones para la vida de la embarazada

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RESUMO

Objetivo: analisar a gestação e suas implicações na vida da gestante**. Método:** revisão bibliográfica integrativa seguindo os pressupostos de Ludke e André, e abordagem qualitativa. **Resultados:** No presente estudo, foram analisados 16 (dezesseis) artigos científicos, que atenderam aos critérios de inclusão previamente estabelecidos, onde foram encontrados 8 (oito) na base de dados SCIELO, 2 (dois) artigos na BVS e outros 6 (seis) em Revistas de Enfermagem, a seguir, apresenta-se um panorama geral dos artigos analisados. **Conclusão:** cada mulher externaliza seus sentimentos de descoberta de gravidez de forma diferente, algumas ficam animadas e sentem prazer, outras ficam tristes e receosas com o que está por vir. É importante instigar a enfermagem a interagir e auxiliar a parturiente de forma abrangente.
Descritores: Gestação; Gestante; Saúde Reprodutiva; Saúde da Mulher; Emoções.

ABSTRACT

Objective: to analyze the management and its conclusions in the pregnant woman's life. **Method:** integrative literature review following the assumptions of Ludke and André, and a qualitative approach. **Results:** In this study, 16 (sixteen) scientific articles were formed, which met the advanced inclusion criteria, where 8 (eight) were found in the SCIELO database, 2 (two) articles in the VHL and another 6 (six) in Nursing Journals, below, presents an overview of the distribution articles. **Conclusion:** each woman externalizes her feelings of pregnancy discovery differently, some are excited and feel pleasure, others are sad and afraid of what is to come. It is important to encourage nursing to interact and assist the parturient in a comprehensive way.
Descriptors: Gestation; Pregnant; Reproductive Health; Women's Health; Emotions.

RESUMEN

Objetivo: analizar el manejo y sus conclusiones en la vida de la gestante. **Método:** revisión integradora de la literatura siguiendo los supuestos de Ludke y André, y un enfoque cualitativo. **Resultados:** En este estudio se conformaron 16 (dieciséis) artículos científicos, los cuales cumplieron con los criterios de inclusión avanzada, donde se encontraron 8 (ocho) en la base de datos SCIELO, 2 (dos) artículos en la BVS y otros 6 (seis) en Enfermería. Revistas, a continuación, presenta una descripción general de los artículos de distribución. **Conclusión:** cada mujer exterioriza sus sentimientos de descubrimiento del embarazo de manera diferente, algunas están emocionadas y sienten placer, otras están tristes y temerosas de lo que está por venir. Es importante fomentar que la enfermería interactúe y asista al parturient de manera integra.
Descriptores: Gestación; Embarazada; Salud reproductiva; La salud de la mujer; Emociones.

REVIEW

Introduction

Pregnancy is a physiological phenomenon that occurs within the uterus, results in a new human being and this process, in most cases, develops uneventfully.[1] It is also a period of great physical, emotional and sexual changes experienced by the pregnant woman and her partner and an important event due to the constitution of a family and the bonds that are already beginning to be created between the members.[1]

In view of the preparation and follow-up of pregnancy, prenatal care is essential at this time and prepares the pregnant woman and the family for the process of pregnancy and birth of the child, in addition to clarifying doubts, bringing knowledge and informing all possible diagnoses that a pregnant woman may have.[2]

Care exists for the care of pregnancy without risk, which prevents high risk or assists it, as its main objective to monitor the growth and development of the fetus, and the health, well-being and quality of life of the mother[1]. It is a primary assistance for a healthy birth and risk control at the time of delivery. In consultations, it is necessary that the pregnant woman be oriented about the entire evolution of pregnancy, general care for herself (physical, spiritual, emotional and sexual), about the support network and on childbirth.[3]

All orientations help relieve the tension that the woman feels during pregnancy, especially primiparous women, not only because of the fear of the process of pregnancy and childbirth, but also for the physical changes that occur in the body, where they may feel insecure and afraid to perform everyday activities, such as work, exercises, and even sexual life.[4] The visits will guide the woman in this new phase and give them the knowledge necessary to live the pregnancy in a full and pleasurable way.[5]

In view of the above, this study proposes the following research question: what implications does pregnancy have on a woman's life, when she knows she is pregnant?

The aim of this study was to analyze pregnancy and its implications on the life of pregnant women. This study becomes relevant since it encourages health professionals working in prenatal care to educate and guide pregnant women holistically and work together with a multidisciplinary team to help women deal with the various areas that are affected during pregnancy.

In addition, through this study, pregnant women can acquire knowledge about how to deal with the emotions and feelings that a pregnancy generates; effectively seek to maintain a good relationship with their support network and will learn about sexual life during pregnancy, which can lead them to an intentional search on the subject, including during prenatal consultations, in which they can answer their doubts with the health professional.

Furthermore, the study may foster further research in the area of pregnancy.

Methodology

This study used the qualitative approach and bibliographic review method, according to ludke and andré's[6] assumptions that seek to explain a problem from theoretical references published in articles.

Data collection was based on a systematized search for scientific articles written in recent years and available in the database of the Scientific Electronic Library Online (SCIELO), in the Virtual Health Library (VHL) and Nursing Journals, using the following descriptors: Pregnancy; Pregnant; Reproductive health; Women's Health; Emotions.

For the selection of articles were considered as inclusion criteria: national scientific articles in Portuguese, published in full and available online.
Exclusion criteria focused on studies that did not meet the research objective with the following exclusion criteria: articles with incomplete publication and or in the form of an expanded abstract.

Results and Discussion

In the present study, 16 (sixteen) scientific articles were analyzed, which met the previously established inclusion criteria, where 8 (eight) were found in the SCIELO database, 2 (two) articles in the VHL and another 6 (six) in Nursing Journals, then presenting an overview of the analyzed articles. Chart 1 represents the specifications of the articles included in the study.

Chart 1- Articles used in the construction of the discussion. 2021.

Tittle	Authors	Year	Type of study
Experiencing repercussions and transformations of a pregnancy: perspectives of pregnant women	Karla Gonçalves Camacho; Octavio Muniz da Costa Vargens; Jane Márcia Progianti; Thelma Spíndola;	2010	Qualitative descriptive research
Feelings and perceptions of puerperal women regarding the care provided by the maternal and child service of a university hospital.	Ligia Maria Suppo de Souza Rugolo; Juliana Bottino; Silvia Regina Marchioni Scudeler; Maria Regina Bentlin; Cleide Enoir Petean Trindade; Gimol Bezaquen Perosa; Antonio Rugolo Junior;	2004	Cross-sectional study
Meanings of pregnancy and motherhood: Discourses of primiparous and multiparous.	Flavia Baroni Simas; Laura Vilela e Souza; Fabio Scorsolini-Comin;	2013	Qualitative research (interview)
Pregnancy and preparation for childbirth: intervention programs.	Eliana Aparecida Torrezan da Silva;	2013	Qualitative literature review
Pregnant women's perception of their families and pregnancy through the Calgary and Hermeneutics model	José Lenartte da Silva	2018	Descriptive, exploratory qualitative study

Pregnancy and the constitution of motherhood.	Cesar Agusto Piccinini; Aline Grill Gomes; Tatiana de Nardi; Rita Sobreira Lopes;	2008	Qualitative research (interview)
Doula's Role in Parturient Care.	Viviane Murilla; Sonia Maria Junqueira Vasconcellos de Oliveira;	2005	Descriptive study
Qualitative evidence on follow-up by doulas in labor and delivery	Raimunda Magalhães da Silva; Neslson Filice de Barros; Herla Maria Furtado Jorge; Laura Pinto Torres de Melo; Antonio Rodrigues Ferreira Junior;	2012	Qualitative literature review
The meanings of care in pregnancy	Danielle Abdel Massih Pio; Mariana da Silva Capel;	2015	Qualitative exploratory research
Reflections on sexuality during the experience of the climacteric.	Roselane Gonçalves; Miriam Aparecida Barbosa Merighi;	2009	Qualitative study (phenomenological)
Profile of sexual behavior during pregnancy.	Ana Carolina Rodrigues Savall; Aline Knepper Mendes; Fernando Luiz Cardoso;	2008	Descriptive research with cross-sectional design
Nursing care to women's sexuality in climacteric: reflections from the perspective of phenomenology	Ângela Roberta Lessa de Andrade; Clara Maria Silvestre Monteiro de Freitas; Isadora Tavares Riegert; Hellen Necy de Almeida Arruda; Danielle de Arruda Costa; Aurélio Molina da Costa;	2016	Qualitative study (phenomenological)
The experience of sexuality by women in the climacteric.	Sheila Milena Pessoa dos Santos; Roberta Lima Gonçalves; Elisangela Braga de Azevedo; Ana Karla Dantas Pinheiro; Carolina Araújo Barbosa; Kamila Nóbrega de França Costa;	2014	Analytical-descriptive study (qualitative)
Climacteric and sexuality: the understanding of this interface by women assisted in groups.	Deíse Moura de Oliveira; Maria Cristina Pinto de Jesus; Miriam Aparecida Barbosa Merighi;	2008	Qualitative study
Social representations of the sexual life of women in the climacteric attended in public health services	Ivonete Alves de Araújo; Ana Beatriz Azevedo Queiroz; Maria Aparecida Vasconcelos Moura; Lúcia Helena Garcia Penna;	2013	Qualitative study (semi-structured interview)
The process of living and being healthy of women in the climacteric.	Maria de Fátima Mota Zampieri; Gladys Santos Falcon; Celina Maria Araújo Tavares; Alcione Leite de Silva; Maria de Lourdes Campos Hames; Lúcia Takase Gonçalves;	2009	Qualitative study

For the discussion of the theme, the data found were organized in the form of categories, where they are presented in number of five categories, as follows:

Pregnancy

Pregnancy is the event that occurs inside the uterus, which resulted from the fertilization of the egg by sperm and is an event that will bring great transformations in the life of the woman and her partner.[7] Suspicion of a pregnancy can be identified by a set of signs presented by the woman, such as: menstrual delay from 14 days, nausea and vomiting, increased breast pain sensitivity and hyperpigmentation of the primary areola and appearance of the secondary areola with imprecise limits (called Hunter's Sign), polaciuria, chloasma (spots caused by increased melanin production on the forehead part, nose, cheek and upper lip), pigmentation in the alba line (called nigra line), among other signs. The specific diagnosis is based on the identification by ultrasound or fetal cardiac activity and the detection of hCG in the blood or urine.[8]

During pregnancy, the woman undergoes systemic transformations of the genitalorgans and clinical implications. Within the systemic transformations: changes in posture and ambulation, metabolism, cardiovascular system, blood system and urinary system. Anatomical changes in the kidneys and lower urinary system, physiological changes related to cardiac output, concentration and elevation of some substances, modification in the respiratory system, digestive system, endocrine system, skin and phreanes. In the genitals, there is a change in the vulva and vagina and uterus. And finally, clinical implications involving cardiovascular, blood, urinary, respiratory, digestive and endocrine changes.[9]

Pregnancy is divided into three trimesters. In the first trimester, fertilization and establishment of the embryo occur in the uterus and the development of the first layers of organs begins and, at the end of this period, the embryo begins to take shape. In the second trimester, the fetus completely develops all organs. In the third, the fetus gains weight and height and the mother prepares for delivery. Throughout pregnancy, it is important that the woman maintains healthy habits for the development of the fetus, and in this first phase, for the embryo to survive, it is also important to avoid exercises and activities of great impact.[9]

Pregnancy is an important phase in the life of any woman, it is a time of diverse changes, it is a complex, transformative and dynamic process. Understanding the pregnancy marked by the transformations of the body means considering pregnancy in its psychological, social, cultural sphere, and in all its faces.[10]

Pregnancy induces several changes in the woman's body, the maternal organism is "obliged" to undergo a series of adaptations, adaptations these, attributed to the whirlwind of hormones that the woman's body is exposed to, and these changes are necessary for the fetus to have a healthy development and within normal standards.[11]

Feelings experienced upon learning of pregnancy

When the woman begins to show the signs of possible pregnancy, and thinks of the various transformations that will occur in her body, there is a mixture of feelings of wanting or not being pregnant. From this feeling, others are triggered as surprise, whether positive or negative, intense enjoyment and pleasure, or non-positive feelings such as distress and abandonment. While for some the moment is special, for others it may be a time when they feel frustrated and embarrassed, and it is necessary to consider gestational changes, self-image and self-esteem.[12]

In unwanted pregnancy, disordered feelings can occupy a woman's mind. It is possible that she thinks that pregnancy is an invasion, someone came and entered without asking permission, and that's when the pregnant woman begins to assimilate things and a process of acceptance can begin.[12]

From this, thoughts about the future arise, many of them, are frightened and worried, especially if it was not a planned pregnancy. When seeking care, it is necessary that this woman be heard and that the health professional give importance to their reports, because it is at this moment that a relationship of trust is established between the patient, her family and the professional, and from that moment on the fears, insecures and concerns can be administered in the best way.[13]

It is necessary that the team that will provide assistance to these women understand what pregnancy means for them and their families. It is necessary to understand how each pregnancy took place, as this will determine the proper and healthy development of the mother and fetus. The main goal of prenatal care is to welcome the mother from the beginning of her pregnancy, when she will undergo physical, physiological and psychoemotional changes. Each woman will deal with these changes individually and differently, which can cause fear, doubt, sadness, or just curiosity.[14]

Difficulties encountered during pregnancy

From a historical analysis, it is perceived that in recent decades motherhood has gained new adjacent challenges. The greater insertion of women in the labor market makes her have multiple journeys, since the care of children and domestic services remain mostly under the responsibility of the woman, in the Brazilian scenario.[15]

In this sense, according to IBGE, women from lower economic classes have greater difficulty in carrying out effective family planning, a fact observed from the 2010 Census data, which demonstrated the fertility rate of the less developed regions of the country, Northeast and North, of 2.4 and 2.0 children, respectively, in contrast to the more developed regions, South and Southeast, which were 1.8 and 1.7 children per woman[16]. This situation refers to pregnant women who feel economic and social helplessness because they do not have a structure that guarantees the supply of their family's basic needs, such as food, housing and access to basic health, especially for low-income multi-workers. A new format of the family system with more responsibilities, probable financial

difficulties and quality of life, generates many uncertainties and anxiety in pregnant women.[17]

On the other hand, even if the woman has a good job and comfortable economic situation, the other activities performed by her can become a stress factor during pregnancy.[18]

Maintenance of interpersonal relationships

In pregnancy, the woman begins to have a body that transforms every day and that undergoes several emotional changes, during this period, she can become more vulnerable, and, in terms of emotional health, she can emerge more strengthened and matured, or else more weakened or confused. Therefore, this period is so special for the woman, her partner and other children and, finally, for all of the family, because the woman not only goes through changes in her body, but she also goes through changes in the way of living and seeing the world, since she is being prepared to bring a life to the world. Therefore, due to these various transformations in the woman's body and mind, medical, psychological and support network during pregnancy is of paramount importance.[19]

Family is the heart of the social system and if someone wants to maintain the health of society, the best way is to discover a means of nourishing heart (family), because it is who helps build the human being, provides love and care and builds healthy children and future adults.[20] By taking this concept into consideration, it is possible to realize that a support of extreme importance for pregnant women is the family. This well-established relationship gives women a support network to which she can overcome challenges and face fears, longings, anxieties and conflicts.[21]

In a qualitative study conducted with pregnant women, it showed changes in the marital relationship. Women reported increased connection, union and solidity in the relationship after discovering they were pregnant.[22] Another study showed that some pregnant women received full support from their families, and this led to a positive development of pregnancy, because they felt more confident, while other pregnant women did not receive this support, but during pregnancy the family was able to assimilate this new phase.[21]

In addition to the family, another important support network are doulas, women who help pregnant women and the family during the perinatal period, meeting the needs and needs of the woman, as well as calming and bringing security in this process.[23] The doula can provide physical, emotional, social and spiritual support to the woman and it is important that this professional can be recognized and that pregnant women know that they can have this support during pregnancy.[24]

With this study, it was possible to identify that support to pregnant women with support networks, whether family, social or by a health professional, in joint actions, provides pregnant women with greater safety and better guidance to experience the gestational process.[25]

Sexuality in pregnancy

Sexuality is something that is within every human being, it is not characterized by the need for sex, but by the basic need to relate to the other, receiving and giving love, contact and intimacy. It is a fundamental thing to discuss, as it interferes in actions, feelings, interactions, physical and mental health.[26] And it is characterized by physiological, biological, sociological, cultural, and spiritual adaptations of the human being, their experience, physical and emotional behavioral well-being, affective development in relation to other people and the very expression of being.[27]

Sexuality is a very important aspect in the quality of life of the human being because it is part of who a person is, and what he feels and does, and for sexuality to develop, basic human needs need to be met, some examples are: intimacy, affection, emotional expression, pleasure and love.[28]

Affectivity are phenomena experienced and lived in the form of emotion, feeling and passion. Emotion is a form of body expression that has the plastic power, expressive and contagious, the body establishes postural patterns in each emotion. It acts in a mutual way between individuals and stimulates cognitive development. Expression, on the other hand, is a representative form of affectivity, that is, feelings, especially in adults, translate the motives and circumstances present in the demonstration of that feeling. Passion is a way to meet the affective needs of the human being.[29]

The way sexuality is lived and expressed is very important, and these characteristics come from whether thoughts, fantasies, desires, attitudes, values, beliefs, practices and relationships. It is influenced by biological, psychological, economic, cultural and religious factors, and is one of the pillars of the quality of life and overall health of the individual.[30] It is important to understand that sexuality should be seen broadly, that is, understand that it can manifest itself in all phases of life.[31]

Sexual pleasure is an imbrication of the other in us, of us in the other, one can configure bonds that goes beyond the usual relationship and that is characterized by the need for satisfaction of sexual pleasure. Latent need in all individuals and at some moments of life, in view of the fragilities of the physical body and interpersonal relationships that, when being limited, the individual may wish to shiefrom the affective/sexual relationship.[32]

The exercise of pleasure is linked to the relationship one has with one's own body, with the other and with the world. Thus, exercising sexuality is not just having an active sexual life, it is meeting yourself, it is feeling accompanied, it is having the other as a living presence, active, as being-with-the-other in an affectionate environment. If so, physical limitations will not be obstacles to the pleasure of being together with each other. Furthermore, the author describes in his study the report of a research participant where her speech reveals that the body is an object of pleasure and that, in the exercise of pleasure, it is also possible that the Being feels the importance of the other to itself. But what differs from other animals is that the satisfaction of this pleasure does not end with orgasm. Sexual life cannot be circumscribed to an organic device and it is not through sexual life that one understands the existence that gives meaning to life is the possibility of sharing experiences, emotions, pleasures, joys and sorrows.[32]

Myths and taboos

There are many myths and taboos about sexuality and sex itself, due to religious beliefs and other limiting beliefs. The church has long dictated sexual behaviors, emphasizing sex only for procreation, and not as a form of pleasure and connection.[26] Sex was seen through fear and fear, sexually transmitted diseases, sin, pregnancy and other.[33]

Another fact is that female sexuality has always been involved in myths and taboos that are recorded in the collective unconscious, and by being surrounded by mysteries, sins and prejudices, it makes it difficult to experience it besides influencing the understanding of the multiple possibilities of the relationship.[32]

Pregnancy is one of the cycles of life of women in which their sexuality is affected and influenced by several factors such as changes in body image perception, decreased energy level, presence of physiological symptoms and body discomforts, quality of relationships, mood changes, need for a new physical, emotional, existential and also sexual adaptation that can be felt by pregnant women, as well as by your partner.[37] In a survey related to sexuality in pregnancy by Cristina Lazar, she points to a drop in sexual relations between couples of 25% every quarter, which proves the changes reported above.[34]

Humanization in nursing care for women who experience difficulties related to their sexuality, as the essence of the "being" woman, and of sexual practice due to the characteristic changes of the specific physiology of the lived phase, requires the reception of this woman so that there is resolution in the responses to their needs. And this is a field where more progress is needed, since sexuality in the climacteric is not yet a very comfortable area for nurses who work directly with primary care. Studies show that unpreparedness in academic training requires reformulation of the curriculum and better foundation of nurses in sexuality care.[35]

The experience of sexuality is related to factors that go beyond the generational and sociodemographic aspects, being more related to cultural aspects.[36] However, it is thought that some factors may be conditioning factors of this behavior of aversion, especially those that focus on the imaginary and the female psyche. This results in a situation of psychological blockage for the experience of sexual intercourse, with possibilities of evolution, if they are fed.[37]

Studies reveal changes in the experience of sexuality according to reports of women where they mentioned significant changes in this context. These sexual changes are considered uncomfortable as they have an impact on your relationship with your partner and with yourself.[38]

Other results showed that the sexual life of women in climacteric was anchored in the feminine stereotypes of a conservative cultural formation, in which sex and love must walk together, as something inseparable and dependent on each other.[39]

It is worth remembering that sexuality is one of the pillars of quality of life and indispensable factor for maintaining social interaction and creating bonds. Therefore, it is necessary to help them, strengthen them, empowering them to go through this phase of their lives as naturally as possible.[35]

Throughout their life process, women seek to strengthen their self-esteem and singularities, asserting themselves as women. In interacting with others in their daily lives, they reveal themselves, they love, they suffer, they are happy and they transform. Marital relationships proved to be an important factor for healthy living, being essential for the process of socialization of women, formation of their identity and feeling of belonging to a social group. For women, the search for autonomy and rights has been paramount to strengthen the social role of women, the full experience of citizenship and the visibility of women in society.[40]

Final Considerations

This study met the proposed objectives, because it was able to show in general the implications of pregnancy in the life of pregnant women. It is possible to observe that the changes in the life of the parturient, her partner and family members are profuse and often difficult to deal with, especially for the parturient, who finds himself in a completely different phase of life, with changes and transformations in all areas.

It was found that each woman externalizes their feelings of pregnancy discovery differently, some are excited and feel pleasure, others are sad and afraid of what is to come. But the fact is that the support network of the pregnant woman makes all the difference, especially the partner, the woman feels safe and confident to know that her partner will be with her on this journey.

In addition, other important implications were highlighted, such as the multiple journeys of women. Whether in a low or high income situation, having support in the various functions that performs, makes the woman feel less overloaded and more willing to deal with all the transformations that pregnancy brings. In the low-income situation, it is also worth mentioning that family planning programs and state support for the supply of basic family needs are also paramount for the emotional well-being of pregnant women.

Another important point is sexuality, which is sometimes neglected and not experienced. With physical and emotional changes, women start to feel insecure with their own body and with hormonal changes, which often generate increased or decreased libido. Moreover, it was observed the difficulty that the parturient and her partner have to experience sexuality during pregnancy, sometimes because they do not know what can or cannot be practiced and sometimes for fear of hurting the fetus. That is why it is important that there is a multidisciplinary team that guides women and their partners holistically.

For sexuality to be a point to be valued and better considered during pregnancy, it is necessary to supply essential factors of the well-being of pregnant women and for this both public measures and for example the strengthening of basic health programs that help women to carry out family planning in order to promote better emotional state for pregnant women, as well as interpersonal measures: presence of a support network of friends and family so that there is no overload of functions for women, need to be taken.

This study becomes relevant since it highlighted important points that pregnancy brings in the life of pregnant women and, with this, it can encourage nursing to interact and help the parturient in a comprehensive way, that is, to

teach and support in the physical, emotional, spiritual and sexual areas.

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References

1. Neme B. Livro de obstetrícia básica. 2. ed. São Paulo: Editora Savier; 2000. [Citado em 2021 mai 30]

2. Ministério da Saúde (BR). Assistência pré-natal: manual técnico. Brasília: Ministério da saúde; 2000. [Citado em 2021 mai 30] Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/cd04_11.pdf

3. Andreucci CB, Cecati JG. Desempenho de indicadores de processo do programa de humanização do pré-natal e nascimento no Brasil. Cad. Saúde Pública. 2011 jun; 27(6):1053-1064. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/csp/a/nCSZBSNNVfwz4vT8bzgBnVv/?format=pdf&lang=pt

4. Abeche AM. A gestante adolescente e seu parceiro: Características do relacionamento do casal e aceitação da gravidez. Revista HCPA. 2003; 25 (7): 535. [Citado em 2021 mai 30]. Disponível em: https://www.scielo.br/j/rbgo/a/JGGD5HwY3r4tyn6HqZ5R95k/?format=pdf&lang=pt

5. Ministério da Saúde (BR). Pré-natal e Puerpério: atenção qualificada e humanizada – manual técnico. Brasília: Ministério da Saúde; 2005. [Citado em 2021 mai 30]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/pre-natal_puerperio_atencao_humanizada.pdf

6. Ludke M, Andre M. Pesquisa em educação: abordagens qualitativas. São Paulo: Editora Pedagógica e Universitária; 1986. [Citado em 2021 mai 30]

7. Ministério da Saúde (BR). Saúde de a-z/gravidez. Brasília: Ministério da Saúde; 2016. [Citado em 2021 mai 30] Disponível em: https://antigo.saude.gov.br/saude-de-a-z/gravidez

8. Fernandes CE. Tratado de Obstetrícia Febrasgo. 1. ed. Rio de Janeiro: [Elsevier Editora Ltda]: Grupo GEN; 2018. [Citado em 2021 mai 30]

9. Montenegro CAB, Rezende JF. Obstetrícia fundamental. 14. ed. Rio de Janeiro: Guanabara Koogan; 2019. [Citado em 2021 mai 30]

10. De Felice, E. M. A Psicodinâmica do Puerpério. São Paulo: Editora Vetor; 2000.

11. Bonadio IC, Tsunechiro MA. Diagnóstico de gravidez. Enfermagem no ciclo gravídico-puerperal. Barueri, SP: Editora Manole; 2006. Cap. 1, p. 4 a 9. [Citado em 2021 mai 30]

12. Camacho KG, Vargens OMC, Progianti JM & Spíndola T. Vivenciando repercussões e transformações de uma gestação: perspectivas de gestantes. Ciencia y Enfermeria

Concepcion; 2010; 16 (2), 115-125. [Citado em 2021 mai 30] Disponível em: https://scielo.conicyt.cl/pdf/cienf/v16n2/art_12.pdf

13. Rugolo LMSS, Bottino J, Scudeler SEM, Bentlin MR, Trindade CEP, Perosa GB, et al. Sentimentos e percepções de puérperas com relação à assistência prestada pelo serviço materno-infantil de um hospital universitário. Rev. Bras. Saúde Matern. Infant. 2004; 4 (4): 423-433. [Citado 2021 mai 30]. Disponível em: https://www.scielo.br/j/rbsmi/a/CPtJCd5Bhs6jZSsVCby7fKp/?format=pdf

14. Vasques FAP. Pré-natal: um enfoque multiprofissional. São Paulo: Rubio; 2006. [Citado em 2021 mai 30]

15. Bruschini C. O trabalho da mulher brasileira nas décadas recentes. Estudos Feministas, n.e., p.179-99, 1994. [Citado em 2021 mai 30]

16. Instituto Brasileiro de Geografia e Estatística (IBGE). Sinopse do Censo Demográfico; 2012. [Citado em 2021 mai 30]

17. Simas FB, Souza LV & Scorsolini-Comim F. Significados da gravidez e da maternidade: Discursos de primíparas e multíparas. Revista Psicologia: Teoria e Prática; 2013. [Citado em 2021 mai 30] Disponível em: http://pepsic.bvsalud.org/pdf/ptp/v15n1/02.pdf

18. Ministério da Saúde (BR). Atenção ao pré-natal de baixo risco. Brasília: Editora do Ministério da Saúde; 2012. [Citado em 2021 mai 30] Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/cadernos_atencao_basica_32_prenatal.pdf

19. Silva EAT. Gestação e preparo para o parto: programas de intervenção. São Paulo; 2013. [Citado em 2021 mai 30] Disponível em: http://www.saocamilo-sp.br/pdf/mundo_saude/102/10.pdf

20. Moreira LVC, Silva CN, Chaves RA. Bronfenbrenner e o modelo bioecológico: contribuições para a família. Revista SEMOC. [Citado em 2021 mai 30] Disponível em:http://ri.ucsal.br:8080/jspui/bitstream/prefix/3039/1/Bronfenbrenner%20e%20o%20modelo%20bioecol%C3%B3gico.pdf

21. Silva JL. Percepção da gestante sobre sua família e gestação por meio do modelo Calgary e da Hermenêutica. Tese (Mestrado). Rio Grande do Norte: Universidade Federal do Rio Grande do Norte; 2018. [Citado em 2021 mai 30] Disponível em: https://repositorio.ufrn.br/bitstream/123456789/25725/1/JoseLenarteDaSilva_DISSERT.pdf

22. Piccinini CA, Gomes AG, Nardi T, Lopes RS. Gestação e a constituição da maternidade. Psicologia em Estudo. 2008; 13(1), 63-72. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/pe/a/dmBvk536qGWLgSf4HPTPg6f/?format=pdf&lang=pt

23. Leão CM, Oliveira SMJV. O Papel da Doula na Assistência a Parturiente. Reme. Rev. Min. Enfermagem; 2005. [Citado em 2021 mai 30] Disponível em: http://www.reme.org.br/artigo/detalhes/380

24. Silva RM, Barros NF, Jorge HMF, Melo LPT, Junior ARF. Evidências qualitativas sobre

o acompanhamento por doulas no trabalho de parto e no parto. Ciência & Saúde Coletiva; 2012. 17(10):2783-2794; [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/csc/a/zNSMKtmQVWb89TkwhNmFwPC/?format=pdf&lang=pt

25. Pio DAM, Capel MS. Os significados do cuidado na gestação; 2015. Revista Psicologia e Saúde; 2015, v. 7, n. 1, p. 74-81. [Citado em 2021 mai 30] Disponível em: http://pepsic.bvsalud.org/pdf/rpsaude/v7n1/v7n1a10.pdf

26. Silva CHM, Lopes GP, Vale FBC. Manual SOGIMIG – Sexologia. 1. ed. Rio de Janeiro: MedBook Editora; 2019. [Citado em 2021 mai 30]

27. Potter P. Fundamentos de Enfermagem. 9. ed. Grupo GEN; 2018. [Citado em 2021 mai 30]

28. Ministério da Saúde (BR). Direitos sexuais, direitos reprodutivos e métodos anticoncepcionais. Brasília: Ministério da Saúde; 2009. [Citado em 2021 mai 30] Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/cartilha_direitos_sexuais_reprodutivos.pdf Almeida LR, Mahoney AA. Henri Wallon: Psicologia e Educação. 11. ed. São Paulo: Edições Loyola, 2000. [Citado em 2021 mai 30]

29. Organização Mundial da Saúde (BRA). Saúde Sexual, direitos humanos e a lei; 2015. [Citado em 2021 mai 30]. Disponível em: https://apps.who.int/iris/bitstream/handle/10665/175556/9786586232363-por.pdf

30. Vitiello N. Um breve histórico do estudo da sexualidade humana. Revista Brasileira de Medicina. Edição especial Ciber Saúde, v55, nov; 1998. [Citado em 2021 mai 30]

31. Gonçalves R, Barbosa M, Miriam A. Reflexões sobre a sexualidade durante a vivência do climatério. Revista Latino-Americana de Enfermagem, v. 17, n. 2; 2009. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/rlae/a/gfdHRGnQkfGvFctgwPsrvvN/?format=pdf&lang=pt

32. Glina S, Ankier C. Manual Prático de Condutas em Medicina Sexual e Sexologia. [Santos Editora]: Grupo GEN; 2013. [Citado em 2021 mai 30]

33. Savall ACR, Mendes AK, Cardoso FL. Perfil do comportamento sexual na gestação. Fisioterapia em Movimento; 2008. Curitiba: v. 21, n.2. [Citado em 2021 mai 30]

34. Lazar MCS. Práticas sexuais de mulheres no ciclo gravídico-puerperal. Tese (doutorado). São Paulo: Universidade Estadual de Campinas, Faculdade de Ciências Médicas; 2002. [Citado em 2021 mai 30] Disponível em: https://docs.bvsalud.org/biblioref/ses-sp/2002/ses-15994/ses-15994-668.pdf

35. Andrade ARL, Freitas CMSM, Riegert IT, Arruda HNA, Costa DAC, Costa AM. Cuidado de enfermagem à sexualidade da mulher no climatério: reflexões sob a ótica da fenomenologia. REME rev. min. enferm; 2016. v. 20. [Citado em 2021 mai 30] Disponível em: https://cdn.publisher.gn1.link/reme.org.br/pdf/e964.pdf

36. Santos SMP, Gonçalves RL, Azevedo EB, Pinheiro KD, Barbosa CA, Costa KNF. A vivência da sexualidade por mulheres no climatério. Revista de Enfermagem da UFSM. 2014. v. 4, n. 1, p. 113-122. [Citado em 2021 mai 30] Disponível em:

https://periodicos.ufsm.br/reufsm/article/view/8819/pdf

37. Oliveira DM, Jesus MCP, Merighi MAB. Climatério e sexualidade: a compreensão dessa interfacepor mulheres assistidas em grupo. Texto & Contexto-Enfermagem; 2008. v. 17, n. 3, p. 519-526. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/tce/a/Cb6LngFptQnd8VztRdqCH3K/?format=pdf&lang=pt

38. Araújo IA, Queiroz ABA, Moura MAV, Penna LHG. Representações sociais da vida sexual de mulheres no climatério atendidas em serviços públicos de saúde. Texto & Contexto Enfermagem; 2013. v. 22, n. 1. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/tce/a/j4wr57C9WfBdRfBC654gCnS/?format=pdf&lang=pt

39. Zampieri MFM, Tavares CMA, Hames MLC, Falcon GS, Silva AL, Gonçalves LT. O processo de viver e ser saudável das mulheres no climatério. Escola Anna Nery Revista de Enfermagem; 2009. v. 13, n. 2, p. 305-312. [Citado em 2021 mai 30] Disponível em: https://www.scielo.br/j/ean/a/QN3PMtjxhrmh8qGgVf4v3WP/?format=pdf&lang=pt

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Profile of patients with inflammatory bowel diseases in the southwest region of the Federal District

Perfil dos pacientes com doenças inflamatórias intestinais na região sudoeste do Distrito Federal

Perfil de pacientes con enfermedades inflamatorias intestinales en la región suroccidental del Distrito Federal

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RESUMO

Objetivo: descrever o perfil de pacientes com doença de Crohn e retocolite ulcerativa, em ambulatório. **Método:** estudo epidemiológico transversal, descritivo, com coleta de dados secundários. As informações foram coletadas por meio de prontuário eletrônico da rede pública de saúde. **Resultados:** selecionados 68 pacientes, dos quais 22 (32,4%) eram do sexo masculino e 46 (67,6%) feminino. Ao diagnóstico 48 (70,6%) pacientes apresentavam retocolite, e 20 (29,4%) Crohn. Nestes, o padrão mais encontrado (30%) foi de acometimento colônico, enquanto que na retocolite, a maioria (45,8%) apresentou pancolite. Os pacientes tiveram, em média, 10 meses de sintomas antes do diagnóstico. O medicamento mais utilizado nas doenças inflamatórias intestinais foi o aminossalicilato. Cerca de 9% foram submetidos à cirurgia. Nenhum paciente apresentou óbito. **Conclusão**: a maioria dos achados foram ao encontro dos estudos nacionais atuais. Porém, a heterogeneidade da doença e a carência de estudos, parecem ser os principais fatores para divergências.

Descritores: Doenças Inflamatórias Intestinais; Doença de Crohn; Colite Ulcerativa; Epidemiologia.

ABSTRACT

Objective: to describe the profile of patients with Crohn's disease and ulcerative colitis in an outpatient clinic. **Method:** cross-sectional, descriptive epidemiological study with secondary data collection. The information was collected through an electronic medical record of the public health network. **Results:** 68 patients were selected, of whom 22 (32.4%) were male and 46 (67.6%) were female. At diagnosis, 48 (70.6%) patients had colitis, and 20 (29.4%) Crohn's. In these, the most common pattern (30%) was colonic involvement, while in colitis, the majority (45.8%) presented pancolitis. Patients had, on average, 10 months of symptoms before diagnosis. The most widely used medicine in inflammatory bowel diseases was aminossaicylate. About 9% underwent surgery. No patient died. **Conclusion:** most of the findings were in line with current national studies. However, the heterogeneity of the disease and the lack of studies seem to be the main factors for divergences.

Descriptors Inflammatory Bowel Diseases; Crohn's disease; Ulcerative colitis; Epidemiology.

RESUMEN

Objetivo: describir el perfil de los pacientes con enfermedad de Crohn y colitis ulcerosa en un ambulatorio. **Método:** estudio epidemiológico descriptivo transversal con recolección de datos secundarios. La información fue recolectada a través de una historia clínica electrónica de la red de salud pública. **Resultados:** Se seleccionaron 68 pacientes, de los cuales 22 (32,4%) eran hombres y 46 (67,6%) eran mujeres. En el momento del diagnóstico, 48 (70,6%) pacientes tenían colitis y 20 (29,4%) enfermedad de Crohn. En estos, el patrón más común (30%) fue la afectación colónica, mientras que en la colitis, la mayoría (45,8%) presentó pancolitis. Los pacientes tenían, en promedio, 10 meses de síntomas antes del diagnóstico. El medicamento más utilizado en las enfermedades inflamatorias intestinales fue el aminossaicilato. Alrededor del 9% se sometió a cirugía. Ningún paciente murió. **Conclusión:** la mayoría de los hallazgos estuvieron en línea con los estudios nacionales actuales. Sin embargo, la heterogeneidad de la enfermedad y la falta de estudios parecen ser los principales factores de divergencias.

Descriptores: Enfermedades Inflamatorias Intestinales; Enfermedad de Crohn; Colitis ulcerosa; Epidemiología.

ORIGINAL

Introduction

Inflammatory bowel disease (IBD) is represented by Crohn's disease (CD) and ulcerative colitis (UC), with characteristics of behavior and progression. It is an immunomediated chronic inflammation, triggered by the convergence of epigenetic and environmental factors (smoking, Western diet and previous infections).[1-2]

CD has a higher incidence between the second and four decades of life. The UC, however, has a bimodal pattern, with a higher incidence between the second and third decades and between 60 and 80 years.[3] They are most common in northern Europe and America.[4] However, there is a trend of increased incidence in regions such as: Asia, Eastern Europe and South America.[2] Brazil is still considered a country of low incidence and prevalence, although it is evident the growth in the volume of consultations and hospitalizations for these diseases.[5-6]. The country is responsible for one of the largest increases of the incidence within Latin America, with an annual percentage increase of 11.1% in CD and 14.9% in UC, from 1988 to 2012.[6-7]

IDI represents an important public health problem. Due to its chronic clinical course and frequent exacerbations, there is interference in school, professional performance, impairment in quality of life and increased costs of health systems.[8]

Patients with CD diagnosed before the age of 20 have reduced life expectancy around 7 to 13 years. Although the risk of death related to UC is small, the increased risk of colorectal cancer in this spectrum of IDI is known to be higher, with an incidence rate of 1.58/1000 patients/year.[8] Thus, in an attempt to minimize the impacts of the disease and improve its care, there is a worldwide tendency to create specialized services for the adequate care of these patients.[9]

Epidemiological studies of IDI in industrialized countries are limited due to the lack of surveillance systems and records in reliable and unified databases, common in many Western countries. Another factor to be considered is the need to organize health systems in countries with continental dimensions and associated economic problems, such as Brazil, which hinders adequate records, resulting in few studies to be conducted and published.[10]

This study aims to evaluate the epidemiological profile of IDI in the population attended in a tertiary outpatient clinic in the southwestern region of the Federal District, from 2013 to 2020.

Method

This is a cross-sectional, descriptive epidemiological study with a temporal trend design, based on the collection of secondary data, in a service carried out at the outpatient clinic of the Regional Hospital of Taguatinga (HRT), of the Health Department of the Federal District (SESDF). The outpatient clinic is a reference for the Southwest Health Region (estimated population of 763,247 inhabitants – IBGE, 2014) and covers the municipalities

of Taguatinga, Águas Claras, Arniqueiras, Samambaia, Vicente Pires and Recanto das Emas. Taguatinga is the third most populous city in the Federal District (DF), with 222,598 inhabitants (data from the District Household Sample Survey, 2016).

The sample was defined in a non-probabilistic manner, for convenience, consisting of patients over 18 years of age, living in the Federal District, affected by Crohn's disease or ulcerative colitis, from 2013 to 2020. Minors were excluded, those diagnosed with malignancy, indeterminate colitis, patients who had lost follow-up and incomplete data from the medical records were excluded. The data were obtained by the TrakCare system®, version 2015, implemented in SES-DF in 2013.

The study investigated the following variables: age, gender, race, diagnosis (CD or UC), time from symptoms to diagnosis, extent of the disease (Montreal scale), place of residence, medications in current use and surgical treatment. Microsoft Excel 2010 software® was used for tabulation and data analysis. Descriptive measures of position and dispersion were calculated for quantitative variables, in addition to the crossing of these variables by Fisher's exact test. The Research Ethics Committee (CEP) of the Health Sciences Teaching and Research Foundation (FEPECS) approved this study under number 4,394,787.

Results

Between January 2013 and December 2020, 88 patients diagnosed with IDI were selected. Of these, 3 (three) lived outside the Federal District, 4 (four) had a diagnosis of indeterminate colitis, 10 (ten) incomplete data from the medical records and 3 (three) lost follow-up, therefore, they were excluded. The study included 68 patients, with a mean age of 42.3 years, ranging from 18 to 82 years. The mean age at diagnosis in CD was 44.9 years (standard deviation ±14.9 years), while those with UC was 41.6 (standard deviation ±15.5). For both, there was heterogeneity in the age distribution, and for UC the variability was higher. Table 1 presents the sociodemographic characteristics of the sample.

Table 2 identifies the percentage distribution of patients according to the phenotype of the disease, standardized by the Montreal classification. In colitis, the extent of the disease was considered, while in CD age at diagnosis, site of gastrointestinal tract involvement and behavior (inflammatory, penetrating or stenosan). For CD, 30% of the patients presented the standard "A3L2B1", while in the UC, 45.8% presented the "E3" pattern.

Regarding the time of symptoms before diagnosis, patients had, on average, 10 months of symptoms until diagnosis. Separately, patients with CD presented 11.4 months of symptoms (standard deviation ±10.7 and coefficient of variation 93.8%), while for colitis this mean was 9.3 months (standard deviation ±7.1 and coefficient of variation 76.2%). Information on temporal dispersion of symptoms before diagnosis illustrated the high variability of these data.

The most used drug in patients with UC was amiosalyllate in 97.9% of cases, followed by azathioprine in 29.1%. No patient used immunobiological therapy, even patients with pancolitis. In patients with CD, aminossaicylates

also corresponded to the most frequent and used therapy in 65% of patients, with 45% in association with azatioptine and the remaining 20% in the form of monotherapy. All patients using aminossaicylate as mono therapy had a pattern of colonic involvement (established by the Montreal classification), while those on combination therapy with azathioprine had equivalent distribution between slender, colonic or ileocolonic involvement patterns. Few used immunobiologicals, 20% of the total individuals with CD, three using adalimumab and only one using infliximab. Table 3 illustrates the distribution of drug use in UC and CD - according to the extent of the disease and the location of disease and phenotype involvement, respectively. Only 9% of the patients in the sample underwent surgery (one right colectomy by semiocclusive condition, two subtotal colectomy per neoplasm, one total colectomy per toxic megacolon and two drainages by perianal abscess). No patient had IDI-related death as an outcome.

Table 1- Sociodemographic characteristics of patients with IDI. Brasilia, 2013-2020.

Variables	N (%)
Gender	
Male	22 (32,4%)
Female	46 (67,6%)
Gender by type of disease	
Crohn's disease (CD)	
Male	8 (40%)
Female	12 (60%)
Ulcerative colitis (UC)	
Male	14 (29,2%)
Female	34 (70,8%)
Declared race	
White	16 (23,5%)
Browns	42 (61,8%)
Black	10 (14,7%)
Type of disease	
Crohn's disease	20 (29,4%)
Ulcerative colitis	48 (70,6%)
Place of residence in the Federal District by type of disease	
Crohn's disease	
Clear Waters	1 (5%)
Ceilândia	4 (20%)
Nocan of Emas	1 (5%)
Bottom Creek	1 (5%)
Fern	2 (10%)
Saint Mary's	1 (5%)
Taguatinga	10 (50%)
Ulcerative colitis	
Ceilândia	13 (27,1%)
Cruise	1 (2,1%)
Range	1 (2,1%)
Guara	1 (2,1%)

Recanto das Emas	4 (8,3%)
Riacho Fundo	1 (2,1%)
Samambaia	9 (18,7%)
Taguatinga	18 (37,5%)
Distribution by age group (in years) by type of disease	
Crohn's disease	
nov/20	2 (10%)
21-30	-
31-40	3 (15%)
41-50	6 (30%)
51-60	4 (20%)
61-70	2 (10%)
71-80	3 (15%)
81-90	-
Ulcerative colitis	
nov/20	3 (6,3%)
21-30	6 (12,5%)
31-40	5 (10,4%)
41-50	11 (22,9%)
51-60	9 (18,7%)
61-70	10 (20,8%)
71-80	3 (6,3%)
81-90	1 (2,1%)

Table 2- Percentage of patients according to disease extension and/or phenotype (Montreal Classification) and diagnosis. Brasilia, 2013-2020.

Age at diagnosis *	**Crohn's disease**
A1	-
A2	30%
A3	**70%**
Total	**100%**
Disease involvement *	**Crohn's disease**
L1	30%
L2	**45%**
L3	25%
Total	**100%**
Phenotype of the disease *	**Crohn's disease**
B1	**67%**
B2	19%
B3	14%
Total	**100%**
Extent of the disease **	**Ulcerative colitis**
E1	22,90%
E2	31,30%
E3	45,80%
Total	**100%**

* Classification of Montreal in CD - Age at diagnosis (A1 <16 years; A2 17-40 years; A3 >40 years); location (L1 terminal ileum; L2 colon; L3 ileocolonic; L4 high gastrointestinal tract); behavior (B1 infiamatory; B2 stouring; B3 fistulizer); p = Perianal disease modifier (p), added to B1-B3, if concomitant perianal disease; **Adapted Montreal classification (extension) in UC - E1: disease limited to the recurrent; E2: up to splenic fiexure; E3: proximal to splenic fiexure.

Table 3- Distribution of medications in UC and CD* - Second extent of the disease in UC (n/%); and CD - according to location/phenotype (n/%). Brasilia, 2013-2020.

Ulcerative colitis (48/70,6%)			
Medicine Disease extension (n/%)			
	Retite	**Left colitis**	**Pancolitis**
	(11/22,9%)	**(15/31,3%)**	**(22/45,8%)**
Oral aminossaicylate	**10/91%**	**15/100%**	**22/100%**
Monotherapy	**3/30%**	**6/40%**	**6/27,3%**
Associated topical aminossaicylate	**7/70%**	**8/53,3%**	**6/27,3%**
Azathioprine	**1/9,1%**	**1/9,7%**	**12/54,5%**
Monotherapy	**0**	**0**	**0**
Associated oral aminossaicylate	**1/100%**	**1/100%**	**12/100%**
Immunobiological	**-****	**-**	**-**

Crohn's disease (20/29,4%)						
Drug	**Location (n/%)**			**Behaviour (n/%)**		
	L1	**L2**	**L3**	**B1**	**B2**	**B3**
Oral aminossaicylate monotherapy	**-**	**4/100%**	**-**	**4/100%**	**-**	**-**
Oral amiososaliclate associated with azathioprine	**3/33,3%**	**3/33,3%**	**3/33,3%**	**8/89,9%**	**1/10,1%**	**-**
Azathiopronmonotherapy	**1/33,3%**	**2/66,7%**	**-**	**1/33,3%**	**1/33,3%**	**1/33,3%**
Immunobiological	**2/50%**	**1/25%**	**1/25%**	**1/25%**	**1/25%**	**2/50%**

*UC - Ulcerative colitis; DC - Crohn's disease./ ** Numerical data equal to zero, not resulting from rounding.

Discussion

In this study, UC was more prevalent than CD, a finding that corresponds to that found in national studies7 Parente et al. (2015) observed a diagnosis of UC in 60.3%, compared to 39.7% who had CD.[11]

There was a predominance of females with a percentage of 67.6%, but balance could have occurred with the increase of the sample.[7,11] The cause of the higher percentage of involvement in women is complex, but may be related to their greater entry into jobs in the industrial sector and, therefore, greater exposure to environmental risk factors involved in IDI. In addition, the women's population usually still seeks medical attention earlier.[12]

Of the ethnic distribution, 76.5% were black or brown and 23.5% were white. It is possible that these findings reflect Brazilian ethnic miscegenation. According to IBGE (2021) 54.8% of the Brazilian population declares itself black or brown. However, international studies report a higher prevalence in Caucasians compared to blacks and Asians.[13]

The age profile was slightly higher than that presented in most national epidemiological studies, but quite similar to the study in Campo Grande, where the average found was 46.01 years.[12]

The most common extension in UC was pancolitis (45.8%), followed by left colitis (31.3%) and proctitis (22.9%). These data differ with some studies in the literature. Relative et al. (2015) observed predominance of left colitis, followed by proctitis and pancolitis. However, for Arantes et al (2017), most patients had pancolitis (40.6%), followed by left colitis (35.6%) and proctitis (23.8%).[11-12] These results reflect the heterogeneity in the presentation of IDI, which deserves further studies to better define the predominant diagnostic extension in our country.

Regarding the phenotype in CD, 45% had involvement of the large intestine, 30% small intestine and 25% ileocecal involvement. Similarly, Arantes et al (2017) observed 78% of colonic involvement and 37% of the small intestine.[11-12]

As UC has predictable symptoms, there is less delay in diagnosis, around 2 to 4 months.[14-15] In DC the reverse occurs due to its heterogeneous and insidious presentation.[14] In most developing countries, this delay is more than 18 months. Studies show change in the course of the disease when there is early diagnosis (less than 18 months) and rapid start of treatment.[16] We observed a mean time of symptoms before the diagnosis of 10 months, and in CD it was 11.4 months and in the UC of 9.3 months. The mean duration of symptoms in UC was higher than expected in the literature. Although patients with CD were diagnosed early, the small sample in our study does not allow a positive association.

Monotherapy was the most used regimen in UC and the main drug used aminossaicylate, constituting the first line of treatment in mild to moderate cases.[16] Its use is well established in the maintenance treatment of the disease.[17-18] The great use of this class of drugs, even in patients with pancolitis (where, due to the extent and severity, it is more common to use other therapeutic classes - immunosuppressants and immunobiologicals) can be explained by the fact that the study site is not a reference center in IDI and, therefore, has patients with a lower severity profile.

The most used medication in the treatment of CD was also aminossaicylate, followed by immunosuppressive (azathioprine). This drug has its well-established use in maintaining moderate to severe Crohn's disease, both in the small intestine and in the colon.[19-20] The onset of action (12-16 weeks) makes it impossible to use alone in inducing remission of the disease and, therefore, there is an important association between immunosuppressants and corticosteroids.[21-22] Our study failed to record the number of patients who used corticosteroids. There was a high percentage of patients using aminossaicylates, which are not recommended in patients with CD. These were not superior to placebo, nor to induce and/or maintain remission, as well as do not act on the transmural genesis of the disease.[22] The profile of the specialists of the institution, not acting in the iDI scenario, may explain this result.

The low number of patients undergoing surgery (about 9% of the total) may have occurred due to the small follow-up sample, which makes it impossible to establish associations with phenotype and time of diagnostic delay. These and other divergences in our study were also expected by the

heterogeneity of the disease and its broad spectrum.

Conclusion

UC was more prevalent and the most common extension pattern of the disease was pancolitis, while in CD ileocolonic involvement was. Black or brown women and patients were the most affected, with a mean age of 42.3 years. Monotherapy with aminossaicylates was the most used therapeutic regimen for both CD and UC. The most commonly used combination therapy in CD was immunosuppressive therapy (azathioprine) with oral amysolicilate and in UC was topical with systemic salicylate. Most patients were asymptomatic at the last visit.

The methodological design represents a limitation, because it determines a moment in which factor and effect are observed at the same historical moment, but which can change over time. Thus, continuous monitoring of the database and prospective studies should be performed to characterize the behavior of this disease in the long term.

Aknowlegdment

This study was not granted to be done.

References

1. Guan Q. A Comprehensive Review and Update on the Pathogenesis of Inflammatory Bowel Disease. J Immunol Res. 2019;2019. Disponível em: https://pubmed.ncbi.nlm.nih.gov/31886308/

2. Flynn S, Eisenstein S. Inflammatory Bowel Disease Presentation and Diagnosis. Surg Clin North Am. 2019;99(6):1051–62. Disponível em: https://pubmed.ncbi.nlm.nih.gov/31676047/

3. Mak WY, Zhao M, Ng SC, Burisch J. The epidemiology of in- flammatory bowel disease: East meets west. J Gastroenterol Hepatol. 2020;35(3):380–9. Disponível em: https://pubmed.ncbi.nlm.nih.gov/31596960/

4. Selinger CP, Ochieng AO, George V, Leong RW. The Accuracy of Adherence Self-report Scales in Patients on Thiopurines for Inflammatory Bowel Disease: A Comparison with Drug Metabolite Levels and Medication Possession Ratios. Inflamm Bowel Dis. 2019;25(5):919–24. Disponível em: https://pubmed.ncbi.nlm.nih.gov/30265299/

5. Ungaro R, Mehandru S, Allen PB, Peyrin-Biroulet L, Colombel JF. Ulcerative colitis. Lancet. 2017;389(10080):1756–70. Disponível em: https://pubmed.ncbi.nlm.nih.gov/27914657/

6. Zaltman C, Parra RS, Sassaki LY, Santana GO, de Lourdes Abreu Ferrari M, Miszputen SJ, et al. Real-world disease activity and sociodemographic, clinical and treatment characteristics of mo- derate-to-severe inflammatory bowel disease in Brazil.

World J Gastroenterol. 2021;27(2):208–23. Disponível em: https://pubmed.ncbi.nlm.nih.gov/33510560/

7. Kotze PG, Underwood FE, Damião AOMC, Ferraz JGP, Saad-Hossne R, Toro M, et al. Progression of Inflammatory Bowel Diseases Throughout Latin America and the Caribbean: A Systematic Review. Clin Gastroenterol Hepatol [Internet]. 2020;18(2):304–12. Available from: https://doi.org/10.1016/j.cgh.2019.06.030

8. Calderón M, Minckas N, Nuñez S, Ciapponi A. Inflammatory Bowel Disease in Latin America: A Systematic Review. Value Heal Reg Issues. 2018;17:126–34. Disponível em: https://pubmed.ncbi.nlm.nih.gov/29936359/

9. Kleinubing-Júnior H, Pinho M de SL, Ferreira LC, Bachtold GA, Merki A. Perfil dos pacientes ambulatoriais com doenças inflamatórias intestinais. ABCD Arq Bras Cir Dig (São Paulo). 2011;24(3):200–3. Disponível em: https://www.scielo.br/j/abcd/a/9fcn7WSgF4qYnMYV88BCqwb/abstract/?lang=pt

10.Quaresma AB, Kaplan GG, Kotze PG. The globalization of in- flammatory bowel disease: The incidence and prevalence of inflammatory bowel disease in Brazil. Curr Opin Gastroenterol. 2019;35(4):259–64. Disponível em: https://pubmed.ncbi.nlm.nih.gov/30973356/

11.Parente JML, Coy CSR, Campelo V, Parente MPPD, Costa LA, Da Silva RM, et al. Inflammatory bowel disease in an underde- veloped region of Northeastern Brazil. World J Gastroenterol. 2015;21(4):1197–206. Disponível em: https://www.ncbi.nlm.nih. gov/pmc/articles/PMC4306164/

12.Arantes JAV, dos Santos CHM, Delfino BM, da Silva BA, de Souza RMM, de Souza TMM, et al. Epidemiological profile and clinical characteristics of patients with intestinal inflammatory disease. J Coloproctology [Internet]. 2017;37(4):273–8. Available from: http://dx.doi.org/10.1016/j.jcol.2017.06.004

13.Salgado VCL, Luiz RR, Boéchat NLF, Leão IS, Do Carmo Schorr B, Parente JML, et al. Risk factors associated with inflammatory bowel disease: A multicenter case-control study in Brazil. World J Gastroenterol. 2020;26(25):3611–24. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7366056/

14.Sairenji T, Collins KL, Evans D V. An Update on Inflammatory Bowel Disease. Prim Care - Clin Off Pract [Internet]. 2017;44(4):673–92. Available from: https://doi.org/10.1016/j. pop.2017.07.010

15.Lee DW, Koo JS, Choe JW, Suh SJ, Kim SY, Hyun JJ, et al. Diagnostic delay in inflammatory bowel disease increases the risk of in- testinal surgery. World J Gastroenterol. 2017;23(35):6474–81. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC5643273/

16.Roda G, Chien Ng S, Kotze PG, Argollo M, Panaccione R, Spinelli A, et al. Crohn's disease. Nat Rev Dis Prim [Internet]. 2020;6(1). Available from: http://dx.doi.org/10.1038/s41572-020-0156-2

17.Cai Z, Wang S, Li J. Treatment of Inflammatory Bowel Disease: A Comprehensive Review. Front Med. 2021;8(December):1–24. Disponível em: https://pubmed.ncbi.nlm.nih.gov/34988090/

18.Murray A, Nguyen TM, Parker CE, Feagan BG, MacDonald JK. Oral 5-aminosalicylic acid for maintenance of remission in ulcerative colitis. Cochrane Database Syst Rev. 2020;2020(8). Disponível em: https://pubmed.ncbi.nlm.nih.gov/32856298/

19.Fossmark R, Olaisen M, Martinsen TC, Melberg HO. Factors as- sociated with the persistence of oral 5-aminosalicylic acid mo- notherapy in ulcerative colitis: a nationwide Norwegian cohort study. Therap Adv Gastroenterol. 2021;14:1–10. Disponível em: https://pubmed.ncbi.nlm.nih.gov/34262610/

20.Sandborn WJ, Feagan BG, Lichtenstein GR. Medical management of mild to moderate Crohn's disease: Evidence-based treatment algorithms for induction and maintenance of remission. Aliment Pharmacol Ther. 2007;26(7):987–1003. Disponível em: https://pubmed.ncbi.nlm.nih.gov/17877506/

21.Ak A, Zhang D, Gordon M, Jk M, Ak A, Zhang D, et al. remission in Crohn ' s disease (Review). 2016; Disponível em: https://pubmed.ncbi.nlm.nih.gov/27681657/

22.Seyedian SS, Nokhostin F, Malamir MD. A review of the diagno- sis, prevention, and treatment methods of inflammatory bowel disease. J Med Life. 2019;12(2):113–22. Disponível em: https://pubmed.ncbi.nlm.nih.gov/31406511/

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Evaluation of nervous orthorexy and satisfaction with muscle appearance in the extreme southern catarinian

Avaliação de ortorexia nervosa e satisfação com aparência muscular no extremo sul catarinense

Evaluación de la ortorexia nerviosa y satisfacción con la apariencia muscular en el extremo sur de Santa Catarina

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REVISA

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RESUMO

Objetivo: medir a prevalência de ortorexia e avaliar a satisfação com a aparência muscular em indivíduos residentes do Extremo Sul Catarinense. **Método:** estudo quantitativo e exploratório realizado através de pesquisa de campo e corte transversal. Os pesquisadores chegaram até a amostra através de e-mails, assim como divulgação em redes sociais e em grupos de mensagens. Por meio de um link foi encaminhado o formulário do Google forms e o termo de aceite da pesquisa. O questionário foi constituído por 3 partes: um questionário; questionário do estado de saúde SF-36V2; e os questionários validados no Brasil referentes a Ortorexia (Orto-15) e escala de satisfação com a aparência muscular (MASS). **Resultados:** A avaliação da satisfação da musculatura, através do questionário MASS, 77,2% (n=180) dos indivíduos classificam-se como totalmente satisfeito com a aparência muscular. A média das idades foi de 25,9± 7,9 e IMC 23,3±3,6. **Conclusão**: São necessários novos estudos com a temáticas abordadas para melhor compreensão da dimensão destes resultados a nível estadual e nacional.

Descritores: Transtornos alimentares; Saúde mental; Saúde pública.

ABSTRACT

Objective: to measure the prevalence of orthorexia and to evaluate the satisfaction with muscle appearance in individuals living in the Extreme South of Santa Catarina. **Method:** quantitative and exploratory study carried out through field research and cross-sectional. The researchers reached the sample through e-mails, as well as dissemination on social networks and in groups of messages. Through a link, the Google forms form and the search acceptance term were submitted. The questionnaire consisted of 3 parts: a questionnaire; Health status questionnaire SF-36V2; and the questionnaires validated in Brazil regarding Orthorexia (Ortho-15) and muscle appearance satisfaction scale (MASS). **Results:** The assessment of muscle satisfaction, through the MASS questionnaire, 77.2% (n=180) of the individuals are classified as totally satisfied with the muscular appearance. The mean age was 25.9± 7.9 and BMI 23.3±3.6. **Conclusion:** Further studies are needed with the themes addressed to better understand the dimension of these results at the state and national level.

Descriptors Eating disorders; Mental health; Public health.

RESUMEN

Objetivo: medir la prevalencia de ortorexia y evaluar la satisfacción con la apariencia muscular en individuos que viven en el Extremo Sur de Santa Catarina. **Método:** estudio cuantitativo y exploratorio realizado a través de investigación de campo y transversal. Los investigadores llegaron a la muestra a través de correos electrónicos, así como de difusión en redes sociales y en grupos de mensajes. A través de un enlace, se enviaron el formulario de formularios de Google y el término de aceptación de la búsqueda. El cuestionario constaba de 3 partes: un cuestionario; Cuestionario de estado de salud SF-36V2; y los cuestionarios validados en Brasil sobre Ortorexia (Ortho-15) y escala de satisfacción de la apariencia muscular (MASS). **Resultados:** La evaluación de la satisfacción muscular, a través del cuestionario MASS, el 77,2% (n=180) de los individuos se clasifican como totalmente satisfechos con el aspecto muscular. La edad media fue de 25,9± 7,9 y el IMC de 23,3±3,6. **Conclusión:** Se necesitan más estudios con los temas abordados para comprender mejor la dimensión de estos resultados a nivel estatal y nacional.

Descriptores: Trastornos de la alimentación; Salud mental; Salud pública.

ORIGINAL

Introduction

Eating disorders (ED) are characterized as changes in behaviors related to food, resulting in changes in the consumption or absorption of food, which can significantly compromise the physical and psychosocial health of those affected.[1] The ED cases have a chronic and disabling course, and can result in biological, psychological and social damage, which lead to increased morbidity and mortality. They affect a wide age group, usually between 13 and 21 years old, and can have a fatal evolution when not treated, depending on the severity of the disease or the consequences of health problems. They are predominant in women (90%) of all social classes.[2]

There are criteria established by the World Health Organization, in the International Code of Diseases (ICD-10), and by the American Psychiatric Association, in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), to perform the diagnosis of EDs and these must preferably by a psychiatrist.[3-5] The ADs currently described in the DSM-V are: anorexia and bulimia nervosa, which have a specific diagnosis. On the other hand, some eating disorders are diagnosed as "atypical" eating disorders, and among them are Binge Eating Disorder (BED) and Night Eating Syndrome (NCS).[6]

Recently, another term has been discussed in the literature, as a pathological obsessive behavior and characterized by a change in behavior towards food, orthorexia nervosa. The term is derived from the Greek "ortho", which means "correct", and "rexia", which corresponds to appetite. It is characterized by an obsessively correct behavior, in which individuals have an appreciation for foods classified as healthy, being able to dedicate more than 3 hours a day to the diet; restrict foods such as dyes, preservatives, pesticides, genetically modified ingredients, fats, salt and sugar, as they are seen as unhealthy foods; they feel protected by having an organic, ecological and functional diet.[7]

The term Orthorexia nervosa emerged in order to be characterized as a new picture or condition that leads to an eating behavior disorder. The origin of the term was given by the American physician Steven Bratman, and it is not described in the APA's AD diagnostics manual, DSM-V, or in the ICD-10, given that the number of studies related to this topic is still precarious.[8]

Excessive concern with healthy eating, quality and quantity of food are behaviors encompassed in Orthorexia. They deprive themselves during eating, refuse social interaction so as not to impair their eating routine[9], there is a total exclusion of ultra-processed foods and artificial seasonings, they prepare their own meals with exaggerated and excessive care.[10]

Body dissatisfaction, considered a negative or obsessive evaluation that the individual has in relation to their physical appearance, triggers a negative feeling through two primary mechanisms: comparing the appearance of young people with each other and the internalization of an ideal model of thinness. Currently, the model of beauty imposed by society corresponds to a thin body for women and muscular for men.[11]

This comparison can lead the individual to an incessant search for weight loss and control, resulting in high rates of restrictive diet practices, which in turn, can bring psychological and metabolic damages and also the

appearance of eating disorders.[12] Individuals who in general, they are on restrictive diets, are excessively preoccupied with the food they consume, are more vulnerable to uncontrolled eating behaviors after a long period of food restriction, and tend to have emotional problems such as anxiety and depression. Furthermore, there is a relationship between individuals with restrictive eating behaviors and individuals diagnosed with eating disorders.

Therefore, the aim of the present study was to measure the prevalence of orthorexia and to assess satisfaction with muscle appearance in individuals residing in the extreme south of Santa Catarina.

Method

This quantitative and exploratory study was carried out through field research and cross-section, where it was possible to track orthorexia associated with satisfaction with the muscular appearance of residents of the extreme south of Santa Catarina.

The region of the extreme south of Santa Catarina is made up of 204 thousand inhabitants and comprises 15 cities, namely: Araranguá, Balneário Arroio do Silva, Balneário Gaivota, Ermo, Jacinto Machado, Maracajá, Meleiro, Morro Grande, Passo de Torres, Praia Grande, Santa Rosa do Sul, São João do Sul, Sombrio, Timbé do Sul and Turvo.

The study population consisted of individuals aged over 18 years, female and male, residents of municipalities in the extreme south of Santa Catarina, who agreed to participate in the research. The total study population was 238 people (24 men and 214 women), of which 5 were minors and were excluded from the final sample, which was 233 individuals.

The research was carried out through a questionnaire in Google Forms. The researchers reached out to the sample through emails, as well as outreach on social networks and message boards. Through a link, the Google forms and the research acceptance term were forwarded.

The questionnaire consisted of 3 parts: an adapted clinical questionnaire; health status questionnaire SF-36V2; and the questionnaires validated in Brazil referring to Orthorexia (Ortho-15) and the satisfaction scale with muscular appearance (MASS).13-16

The Brazilian version of the SF-36 Questionnaire has questions and items that encompass components represented by functional capacity, physical aspects, pain, general health status, vitality, social aspects, emotional aspects, mental health and a comparative question about the perception of current health and the last 12 months.[14] The questionnaire addresses questions regarding disposition and energy, for some day-to-day tasks and other situations, together with the health status from the point of view of the person who is performing it. The individual receives a score in each domain, ranging from 0 to 100, with 0 being the worst score and 100 the best. It is a generic questionnaire, therefore unspecific for a particular age, disease or treatment group, it has closed questions to be noted. It was developed in 1992 by Ware and Sherbourne and validated in Brazil by Ciconelli.[14]

The Ortho-15 form was included in order to identify the main characteristics of Orthorexia: attention to food; confusion when acquiring them; concern about health status; if the value of healthy food and taste are relevant,

how much time does eating take up in the routine; whether emotions, social aspects and physical aspects are connected with food; the feeding routine is considered a problem and concern; as well as body appearance. The questions have different scores where the number 1 refers to the alternative related to orthorexia and the number 4 to the healthier, non-orthorexic. So the cutoff point is <40. The questionnaire has closed questions to be highlighted. The original was prepared by Lorenzo Donini and colleagues, later translated from Italian by Pontes and collaborators, in 2014.[17]

The Muscle Appearance Satisfaction Scale (MASS) was constructed[18] and adapted and validated for Brazil[19]. This ladder assesses the satisfaction that individuals have with their own image. It consists of 19 items, with a Likert-type scale (1-NEVER to 5-ALWAYS), and is divided into different dimensions: dependence on working out, checking, satisfaction and substance use. The Satisfaction Scale is scored as follows: from 19 to 28 points = totally satisfied with the muscular appearance; from 29 to 47 points = satisfied most of the time; from 48 to 66 points = satisfied sometimes yes/ sometimes no; from 67 to 85 points = dissatisfied most of the time; and from 86 to 95 points = totally dissatisfied with the muscular appearance.[18-19]

First the data were presented in Mean and Standard Deviation or Frequency and Percentage, when applied to the variables Data were described and also presented in tables, after tabulation in Excel and processed and analyzed using Statistics Package for the Social Sciences - SPSS version 21.0.

The research was carried out after approval by the Ethics Committee for Research on Human Beings by opinion number: 3,214,711 and CAAE protocol: 09694319.8.0000.0119, based on Resolution 466/12 of the National Health Council (CNS) on the date of February 6, 2021. Research data were collected after approval by the Research Ethics Committee of UNESC, by opinion number: 3,214,711 and CAAE protocol: 09694319.8.0000.0119, based on Resolution 466/12 of the National Health Council (CNS), which provides for research with human beings. The confidentiality of the participants' identity was guaranteed and the use of data only for this scientific research and publications derived from it. Individuals who participated in the research were invited to participate after providing a detailed explanation of all procedures (objectives of the study and data collection) and were included in the research only after signing the informed consent form.

Results and Discussion

Data collection took place electronically, covered individuals from the extreme south of Santa Catarina, and took place during the month of April. Table 1 shows the sample data in relation to sex, age, BMI and SF-36, expressed as mean and standard deviation or sample number and percentage. The total sample consisted of 233 individuals, 90.1% (n=210) female and 9.9% (n=23) male. The mean age was 25.9± 7.9 and BMI 23.3±3.6, characterizing Eutrophy.[20]

In 2012, a sample of 1,222 adults aged 20-59 years and 57.3% female in Florianópolis (SC) was evaluated. The BMI and Waist Circumference (WC) with obesity classification were more present in older individuals and men. However, most of the sample in both sexes was eutrophic, as in the present study. Between 2006 and 2019, a sample of 730,309 people in private

households in the 26 Brazilian capitals and the Federal District was assessed between 2006 and 2019. A significant increase in obesity classification was observed between 2006 (42 .6%) for 2019 (55.4%), that is, around 2.05% per year.[21-22]

Regarding the quality of life questionnaire, SF-36, the mean score for functional capacity was 83.3±26.4 points, physical aspects 75.9± 25.5 points, pain 25± 20 points, general state of health 49.5 ± 14.8 points, vitality 35.6 ± 12 points, social aspects 67.6 ± 27.7 points, emotional aspects 62.3 ± 27.7 points and mental health 40 ± 12.13 points. Currently, the appearance of anxiety and depression disorders are increasingly common, especially during the current context of the COVID-19 pandemic. During the pandemic, access to bad news, confinement, lack of social interaction and idle time can trigger eating behaviors of "affective food". of food sources of anti-inflammatories and antioxidants in order to strengthen immunity. Therefore, not only one food is responsible for the individual's state of health, but the total set of their diet.[24] Thus, there is a need to, increasingly, be seeking to talk and study about psychiatric disorders and the quality of life.

The term Quality of Life (QoL) is broadly defined by the World Health Organization (WHO) as "the individual's perception of their position in life in the context of the culture and value system in which they live in relation to their goals, expectations, standards and concerns."[25] Currently, the pace of life imposed by society has a direct impact on people's quality of life, influencing physical and psychological aspects.

A study carried out at Faculdades São José, in 2013, evaluated the quality of life of 12 women who performed hydrotherapy (activities in an aquatic environment), using the SF-36 questionnaire. The survey results showed average scores above 50, which the lowest score was in the domain general health status and the highest average was in the domain physical fitness and social aspect. The physical capacity, pain and mental health dimensions were classified as Good. And the emotional aspects like Very Good.[16]

It is possible to verify that the scores of the mental health dimension of the majority of the participants are in the range of 80 to 89% (very good) and few obtained the classification of regular or below average.

Table 1- Clinical and quality of life data of adults living in the extreme south of Santa Catarina. Santa Catarina, 2021.

Variables	n=233
Sex*	
Feminine	210 (90,1%)
Male	23 (9,9%)
Age**	25,9 ± 7,9
IMC**	23,3 ± 3,6
SF-36**	
Functional capacity	83,3±26,4
Physical aspects	75,9± 25,5
Pain	25±20,9
General health Status	49,5±14,8
Vitality	35,6±12
Social aspects	67,6±27,7
Emotional aspects	62,3±27,7
Mental health	40±12,13

*Absolute and relative frequency.
**Mean and standard deviation.

Table 2 shows results referring to the MASS and Ortho-15 questionnaires, with data expressed as mean and standard deviation or sample number and percentage. The evaluation of muscle satisfaction, through the MASS questionnaire, 77.2% (n=180) of the individuals classified themselves as totally satisfied with their muscular appearance, 21.4% (n=50) as satisfied most of the time, 0.4% (n=1) satisfied sometimes yes/ sometimes no.

In the work carried out by Júnior and collaborators, the Muscle Appearance Satisfaction Scale (MASS) was also used. This study involved 60 male individuals who attended gyms in the city of Ubá (MG). The mean age of the sample was 27.08 ±5.74 years, and the mean of the MASS results was 44.33±10.85 points. Most of the sample was classified as "satisfied most of the time" and none of the subjects mentioned being "totally satisfied or dissatisfied with the muscular appearance". A significant relationship ($p<0.05$) was observed between the score and weekly practice days, where the highest score (more dissatisfaction) tends to have more weekly training days.[26]

A study carried out in Porto Alegre, evaluated 66 gym goers, of which 54.5% (n=36) were men and 45.5% (n=30) were women. The results showed significant differences between the two genders, with a higher prevalence of vigorexia in men ($p=0.034$). [26]

There needs to be a discernment between healthy eating and "pathologically healthy" eating so that a dysfunctional and dangerous restriction does not occur in the general population. This dysfunctional eating can be the gateway to several eating and image disorders, and the term has been much studied as "orthorexia nervosa" (ON), reported by Bratman and Knight, originates from the Greek orthos (correct) and orexis (appetite) classified as the fixation for health, quality and purity of food. DSM) still does not address orthorexia as an eating disorder, being characterized as a dysfunctional eating behavior.[27-28]

The first proposal for a diagnosis of Orthorexia emerged in the study by Moroze, soon after by Dunn and Bratman, in 2016, bringing responses from physical and emotional dimensions, for example, obsessive concern with practices understood by the individual as promoting health, self-imposed rules, fear of disease, feeling of impurity, shame. Over time these behaviors can progress to the exclusion of a food group or meals in order to "cleanse" for example fasting, weight loss can occur even though this is not the main objective, but also present in these cases. In addition, some behaviors are not associated with the obsession with being healthy, such as malnutrition, severe weight loss, personal anguish, beliefs, positive body image and self-esteem, as patients with orthorexia value "being healthy" and not losing weight, body defined or risk of nutrient deficiency.[29]

The first study related to orthorexia was carried out by Donini et al., in La Sapienza with employees, students and parents of students. According to the author, Orthorexia Nervosa (ON) can be diagnosed by identifying obsessive eating behavior in eating. Thus, they are classified as "health fanatics" where the choice of foods considered healthy for the individual (in natura, wholegrain, etc.) and the exclusion of unhealthy foods (frozen, canned, refined, etc.) is prioritized. In this method of analysis, "0" was used for obsessive. Thus, individuals with a score < 0.57 were classified as "health fanatics". The sample consisted of 404 people, 41.9% men and 58.1% women. Among these, 6.9%

(n=28) had orthorexia. In addition, it was observed that the age of orthorexics was slightly higher (36±17 and 33.2±14 p=0.01) and there was a prevalence in males (11.3% and 3.9% p=0.003).[30]

The first studies evaluating Orthorexia in Brazil appeared in 2009 and 2012, evaluating students in the health area. Nutrition, Pharmacy and Nursing students from a college in the interior of Rio Grande do Sul were analyzed[31], in order to identify dietary patterns, relationship between food and social environment, methods of choosing and preparing food. For this, a questionnaire was applied with questions for the diagnosis of orthorexia, based on articles by Donini. The sample consisted of 200 students, 71.5% reported having great concern with the quality of food, the classification of orthorexia was more present among students with higher economic level. The sample did not have obsessive behaviors, 79.6% do not spend most of their time thinking about the diet and only 23.6% are often chewing food, the minority restricts food, do not feel repulsed by artificial foods or distress for going out. of the diet, they eat foods that contain fat, industrialized and food does not influence social life.[32-33]

In the work by Alvarenga et al., with 392 participants from the São Paulo Professionals Association (APAN) of nutritionists, nutrition students and professionals in the area, the ORTO-15 was applied to check for orthorexia. Of the sample evaluated, 93% (n=364) were women, 3% men and 4% did not inform their gender. The mean score on the ORTO-15 was 36.08±3.73, showing a high frequency of the disorder in the studied sample.[31]

In another study, evaluating nutrition students from a university in Vale do Paraíba do Sul (SP), the authors used a silhouette scale to assess body image perception and also the ORTO-15 to assess ON. The sample consisted of 150 students, with a mean age of 23.21±6.3 and it was observed that 80.2% (n=133) presented risk behaviors for ON. The perception of body image, 74.7% (n=112) had a disorder, believed to have a silhouette larger than the BMI.[33]

Relating orthorexia and body dissatisfaction, another study carried out at the Federal University of Triângulo Mineiro (UFTM) with nutrition students, showed that 87% of those evaluated showed a tendency to orthorexia, and 57.8% showed some type of body dissatisfaction (from mild to serious). A significant association between orthorexia and body dissatisfaction (p=0.001) with greater dissatisfaction in orthorexics (p=0.005) was evaluated. There was also a significant association between orthorexia and nutritional status (p<0.05), with a higher frequency of overweight in orthorexics (p=0.010).[31]

Table 2- Satisfaction of muscular appearance and orthorexia screening of residents of the extreme south of Santa Catarina. Santa Catarina, 2021.

Variables	n=233
MASS*	24,9 ± 5,5
Totally satisfied with the muscular appearance	180 (77,2%)
Satisfied most of the time	50 (21,4%)
Satisfied sometimes yes/sometimes no	1 (0,4%)
Orto-15**	35,8 ± 4,2
Presence of Orthorexia*	180 (77,2%)

*absolute and relative frequency.
**mean and standard deviation.

Final consideration

It is concluded that there is a significant percentage for orthorexia in the population, which was not associated with body satisfaction. As there is no data for comparison at the national and regional level, this work becomes a pioneer in its proposal and an alarm data for health professionals in the region.

Updating health professionals is important at this time, as well as acquiring more information and getting to know this public better, which may be presenting a distorted view of what it means to be healthy.

New studies are needed to search for prevalence and strategies in the prevention of orthorexia.

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References

1. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 5th Edition. Arlington, VA, American Psychiatric Association, 2013.

2. Cabrera, Catalina Camas. Estratégias de intervenção interdisciplinar no cuidado com o paciente com transtorno alimentar: o tratamento farmacológico. Medicina (Ribeirao Preto. Online), v. 39, n. 3, p. 375, 30 set. 2006. Disponível em: https://doi.org/10.11606/issn.2176-7262.v39i3p375-380.

3. Laguardia, Josué et al. Brazilian normative data for the Short Form 36 questionnaire, version 2. Revista Brasileira de Epidemiologia, v. 16, n. 4, p. 889-897, dez. 2013. Disponível em: https://doi.org/10.1590/s1415-790x2013000400009.

4. Roehr, B. American Psychiatric Association explains DSM-5. BMJ, v. 346, n. jun06 1, p. f3591, 6 jun. 2013. Disponível em: https://doi.org/10.1136/bmj.f3591.

5. Alvarenga, Marle dos Santos; Scagliusi, Fernanda Baeza; Philippi, Sonia Tucunduva. Comportamento de risco para transtorno alimentar em universitárias brasileiras. Archives of Clinical Psychiatry (São Paulo), v. 38, n. 1, p. 03-07, 2011. Disponível em: https://doi.org/10.1590/s0101-60832011000100002.

6. Amoras, Dinah R. et al. Caracterização dos transtornos alimentares e suas implicações na cavidade bucal. Rev Odontol UNESP, v. 39, n. 4, p. 241-245, 2010.

7. Souza, Quetsia J.O.V. de, Rodrigues, Alexandra M. Comportamento de risco para ortorexia nervosa em estudantes de nutrição. J bras psiquiatr. setembro de 2014;63(3):200–4.

8. Martins, Márcia Cristina Teixeira et al. Ortorexia nervosa: reflexões sobre um novo conceito. Revista de Nutrição, v. 24, n. 2, p. 345-357, abr. 2011. Disponível em: https://doi.org/10.1590/s1415-52732011000200015.

9. Penaforte, Fernanda R. O. et al. Ortorexia nervosa em estudantes de nutrição: associações com o estado nutricional, satisfação corporal e período cursado. Jornal Brasileiro de Psiquiatria, v. 67, n. 1, p. 18-24, mar. 2018. Disponível em: https://doi.org/10.1590/0047-2085000000179.

10. Behar Astudillo, Rosa. El amplio espectro de los trastornos evitativos/restrictivos de la ingestión de alimentos, ortorexia y otros desórdenes (alimentarios). Revista chilena de neuro-psiquiatría, v. 58, n. 2, p. 171-185, jun. 2020. Disponível em: https://doi.org/10.4067/s0717-92272020000200171.

11. Miranda, Daniela et al. Qualidade nutricional de dietas vegetarianas. DEMETRA: Alimentação, Nutrição & Saúde, v. 8, n. 2, 25 maio 2013. Disponível em: https://doi.org/10.12957/demetra.2013.4773.

12. Zarychta, Karolina et al. Body satisfaction and body weight in under- and healthy-weight adolescents: mediating effects of restrictive dieting, healthy and unhealthy food intake. Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity, v. 25, n. 1, p. 41-50, 8 mar. 2018. Disponível em: https://doi.org/10.1007/s40519-018-0496-z.

13. Brytek-Matera, Anna. Interaction between Vegetarian Versus Omnivorous Diet and Unhealthy Eating Patterns (Orthorexia Nervosa, Cognitive Restraint) and Body Mass Index in Adults. Nutrients, v. 12, n. 3, p. 646, 28 fev. 2020. Disponível em: https://doi.org/10.3390/nu12030646.

14. Pereira, Giedre Ingrid das Neves et al. Tradução e validação para a língua portuguesa (Brasil) de instrumentos específicos para avaliação de qualidade de vida na doença do refluxo gastroesofágico. Arquivos de Gastroenterologia, v. 44, n. 2, p. 168-177, jun. 2007. Disponível em: https://doi.org/10.1590/s0004-28032007000200016 .

15. pontes, Jackeline Barcelos; Montagner, Maria Inez; Montagner, Miguel Ângelo. Ortorexia nervosa: adaptação cultural do orto-15. DEMETRA: Alimentação, Nutrição & Saúde, v. 9, n. 2, 13 out. 2014. Disponível em: https://doi.org/10.12957/demetra.2014.8576

16. Bôas, Marcelo Da Silva Villas et al. Nível de satisfação com a imagem corporal e a aparência muscular em praticantes de musculação. Revista da Educação Física/UEM, v. 21, n. 3, 31 jul. 2010. Disponível em: https://doi.org/10.4025/reveducfis.v21i3.7722.

17. Pontes, Jackeline Barcelos. Ortorexia em estudantes de nutrição : a hipercorreção incorporada ao habitus profissional? 2012. PublishedVersion — reponame:Repositório Institucional da UnB, [s. l.], 2012. Disponível em: http://repositorio.unb.br/handle/10482/11131..

18. Mayville, Stephen B. et al. Development of the Muscle Appearance Satisfaction Scale. Assessment, v. 9, n. 4, p. 351-360, dez. 2002. Disponível em: https://doi.org/10.1177/1073191102238156 .

19. Júnior, Sérgio Henrique Almeida da Silva; DE SOUZA, Marcos AguiaR; DA SILVA, Jonas Henrique Almeida. Tradução, adaptação e validação da escala de satisfação com a aparência muscular (MASS) Translation, adaptation, and validation of the Muscle Appearance Satisfaction Scale (mass). Lecturas, Educación Física y Deportes, n. 120, 2008.

20. Organização Mundial De Saúde. Physical status: The Use and Interpretation of Anthropometry. WHO Technical Report Series n.854. Geneva, 1995

21. Wagner, Katia Jakovljevic Pudla et al. Socioeconomic status in childhood and obesity in adults: a population-based study. Revista de Saúde Pública, v. 52, p. 15, 26 fev. 2018. Disponível em: https://doi.org/10.11606/s1518-8787.2018052000123.

22. Silva, Luiza Eunice Sá da et al. Tendência temporal da prevalência do excesso de peso e obesidade na população adulta brasileira, segundo características sociodemográficas, 2006-2019. Epidemiologia e Serviços de Saúde, v. 30, n. 1, 2021. Disponível em: https://doi.org/10.1590/s1679-49742021000100008 .

23. Hargreaves, Shila Minari et al. Quality of Life of Brazilian Vegetarians Measured by the WHOQOL-BREF: Influence of Type of Diet, Motivation and Sociodemographic Data. Nutrients, v. 13, n. 8, p. 2648, 30 jul. 2021. Disponível em: https://doi.org/10.3390/nu13082648 .

24. Malta, Deborah Carvalho et al. A pandemia da COVID-19 e as mudanças no estilo de vida dos brasileiros adultos: um estudo transversal, 2020. Epidemiologia e Serviços de Saúde, v. 29, n. 4, 2020. Disponível em: https://doi.org/10.1590/s1679-49742020000400026.

25. De Freitas, Vera Regina Pessanha et al. Análise da qualidade de vida segundo o questionário sf-36 em um grupo de mulheres participantes de um programa de hidroginástica: uma pesquisa de campo. Ciência Atual - Revista Científica Multidisciplinar da UNISÃOJOSÉ, v. 5, n. 1, p. 02-09, 2015.

26. Teixeira, Felipe Johann. Análise de transtornos dismórficos corporais em adultos praticantes de treinamento de força. 2019. 34 p. Trabalho de Conclusão de Curso — UFRGS, Porto Alegre, 2019.

27. Rodrigues, Paulo Emílio Larino. Nivel de satisfação com a aparência muscular em discentes do curso de educação física da Universidade Federal de Uberlândia. 2016. 34 p. Trabalho de Conclusão de Curso — Universidade Federal de Uberlândia, Uberlândia, 2016.

28. Lima, Litiane Dorneles de; Moraes, Cristina Machado Bragança de; KIRSTEN, Vanessa Ramos. Dismorfia muscular e o uso de suplementos ergogênicos em desportistas. Revista Brasileira de Medicina do Esporte, v. 16, n. 6, p. 427-430, dez. 2010. Disponível em: https://doi.org/10.1590/s1517-86922010000600006.

29. Dunn, Thomas M.; Bratman, Steven. On orthorexia nervosa: A review of the literature and proposed diagnostic criteria. Eating Behaviors, v. 21, p. 11-17, abr. 2016. Disponível em: https://doi.org/10.1016/j.eatbeh.2015.12.006.

30. ALVARENGA, Marle dos Santos; DUNKER, Karin Louise Lenz; PHILIPPI, Sonia Tucunduva. Transtornos alimentares e nutrição - da prevenção ao tratamento. 1. ed. Barueri: Manole, 2020. 570 p.

31. Lopes, Maristela Resch; Kirsten, Vanessa Ramos. Comportamentos de ortorexia nervosa em mulheres jovens. Disciplinarum Scientia. Série: Ciências da Saúde, v. 10, n. 1, p. 7-105, 2009.

32. Moroze, Ryan M. et al. Microthinking About Micronutrients: A Case of Transition From Obsessions About Healthy Eating to Near-Fatal "Orthorexia Nervosa" and

Proposed Diagnostic Criteria. Psychosomatics, v. 56, n. 4, p. 397-403, jul. 2015. Disponível em: https://doi.org/10.1016/j.psym.2014.03.003.

33. Donini, L. M. et al. Orthorexia nervosa: Validation of a diagnosis questionnaire. Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity, v. 10, n. 2, p. e28-e32, jun. 2005. Disponível em: https://doi.org/10.1007/bf03327537.

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Emergencies and emergencies in primary care: nursing vision

Urgências e emergências na atenção básica: visão da enfermagem

Urgencias y emergencias en atención primaria: visión de enfermeira

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REVISA

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RESUMO

Objetivo: Analisar a capacidade de atendimento de casos de Urgência e Emergência pelos enfermeiros da Atenção Básica do Guará/DF. **Método:** Abordagem qualitativa e método descritivo, de acordo com os pressupostos de Gil, no qual todos os dados utilizados foram adquiridos por meio de entrevista realizada nas UBS do Guará-DF com enfermeiros da equipe da ESF. **Resultados:** Foram obtidos por meio de entrevistas realizadas com 07 enfermeiros identificados neste estudo com indicadores alfanuméricos (E1 a E7) para salvaguardar a identificação dos mesmos. **Conclusão:** Esta pesquisa buscou entender como ocorre o atendimento aos casos de urgência e emergência na AB sob o ponto de vista do enfermeiro. Baseado nas informações coletadas considera-se que apesar existir demanda de urgência e emergência na AB, o treinamento dos profissionais e o fornecimento de infraestrutura básica não são realidade. O enfermeiro como sujeito principal neste cenário de tantas controvérsias, fica de fato instável e muito vulnerável em cada um dos atendimentos. Cabe ao SUS repensar onde de fato deve ser feito o serviço de atendimento de urgências e emergências, prover recursos humanos capacitados e caso decida que será também na UBS esse tipo de atendimento, deverá rever a estrutura física e recursos materiais para tal.

Descritores: Emergências; Atenção Básica; Enfermagem.

ABSTRACT

Objective: To analyze the ability to care for Urgency and Emergency cases by nurses from the Primary Care of Guará/DF.**Method:** Qualitative approach and descriptive method, according to Gil's assumptions, in which all the data used were acquired through an interview carried out in the UBS of Guará-DF with nurses from the FHS team.**Results:** They were obtained through interviews with 07 nurses identified in this study with alphanumeric indicators (E1 to E7) to safeguard their identification**. Conclusion:** This research sought to understand how urgent and emergency care occurs in AB from the nurse's point of view. Based on the information collected, it is considered that although there is a demand for urgency and emergency in PC, the training of professionals and the provision of basic infrastructure are not reality. The nurse, as the main subject in this scenario of so many controversies, is in fact unstable and very vulnerable in each of the consultations. It is up to the SUS to rethink where the urgent and emergency service should actually be provided, provide trained human resources and if it decides that this type of service will also be provided at the UBS, it should review the physical structure and material resources for this.

Descriptors: Emergencies; Primary Care; Nursing

RESUMEN

Objetivo: Analizar la capacidad de atención a los casos de Urgencia y Emergencia de los enfermeros de la Atención Primaria de Guará/DF.**Método:** Enfoque cualitativo y método descriptivo, según los supuestos de Gil, en el que todos los datos utilizados fueron adquiridos a través de una entrevista realizada en la UBS de Guará-DF con enfermeros del equipo de la ESF.**Resultados:**Fueron obtenidos a través de entrevistas con 07 enfermeros identificados en este estudio con indicadores alfanuméricos (E1 a E7) para salvaguardar su identificación.**Conclusión:** Esta investigación buscó comprender cómo ocurre la atención de urgencia y emergencia en AB desde el punto de vista del enfermero. Con base en la información recabada, se considera que si bien existe una demanda de urgencia y emergencia en AP, la formación de profesionales y la dotación de infraestructura básica no son una realidad. El enfermero, como sujeto principal en este escenario de tantas controversias, es en realidad inestable y muy vulnerable en cada una de las consultas. Corresponde al SUS repensar dónde realmente debe prestarse el servicio de urgencia y emergencia, dotar de recursos humanos capacitados y si decide que ese tipo de servicio también será prestado en la UBS, debe revisar la estructura física y los recursos materiales para este.

Descriptores: Emergencias; Atención primaria; Enfermería.

ORIGINAL

Introduction

Primary Care is the main gateway to the Unified Health System (SUS), and should act as a filter capable of organizing health demands, from the simplest to the most complex.[1] It is characterized by the combination of individual actions and/or collective practices designed by democratic and participatory management and health practices that encompass health promotion, protection, maintenance and rehabilitation, as well as the prevention, diagnosis and treatment of diseases.[2]

Considered as the main focus in the search for social rights and as responsible for generating responses regarding the needs and expectations of the population, Primary Care (AB) is responsible for promoting improvements in behaviors and lifestyles and for reducing social and environmental impacts. environmental in health.[3]

Primary Care (AB) is a system composed of professionals with knowledge of the health history of its enrolled population, capable of solving more than 80% of the demands of its public, without the need to refer to another service. In Brazil, AB is also known as Primary Health Care (PHC).[4]

In addition to other tasks, Ordinance GM/MS nº 2.048/023 of November 5, 2002, regulates the responsibility of Primary Care to carry out the reception of urgencies and emergencies of low severity, providing initial health care that allows the reduction of greater damage to the user until he is referred to the emergency hospital network[5]. The term Emergency is defined as a health problem with the potential to cause intense suffering or imminent risk of death, therefore requiring immediate medical treatment; and urgency characterized by unpredictable health impairment, with or without potential risk to life, where there is also a need for immediate medical attention.

Therefore, in its routine work, the Family Health team may encounter health situations where there is a need to attend to imbalances in vital functions, with or without risk of progression to immediate or mediate death. Such demands may require the action of the entire team or of a professional in isolation, depending on the circumstances of the moment[5]. However, AB does not have sufficient structure to meet such demands due to the fact that care is not provided in an organized and effective manner[6]. The likely low professional training also appears as one of the reasons that explain the low effectiveness of PC in urgent and emergency care.[7]

This fact is evidenced by studies on the overcrowding of urgency and emergency units that point out that several demands met in emergency rooms could be welcomed and resolved in AB.[6,8]

In addition to the evidence previously described, this study originated from the following research problem: Do nursing professionals who work in Primary Care feel able to perform urgent and emergency care?

This study becomes relevant, as it will allow to know the urgency and emergency care in the Basic Care of the Unified Health System of Guará - DF from the perspective of the nurse and will also contribute to the reflection of training bodies, managers and professionals of Primary Care, regarding the promotion or improvement of the necessary conditions for the success of assistance to urgent and emergency cases, regarding the adequacy of the physical

structure and the mechanisms of professional qualification, and may also contribute to the resolution of the difficulties presented.

The objective of this study was to analyze the capacity of attending Urgent and Emergency cases by nurses of Primary Care in Guará/DF.

Method

This research was carried out using a qualitative approach and a descriptive method, according to Gil's[9] assumptions.

All the data used were acquired through interviews carried out in the basic health units of Guará-DF with nurses from the Family Health Strategy team.

As a way of preserving the dignity and autonomy of the interviewees, anonymity, confidentiality, respect for individual, ethical, moral, social, cultural and religious values, as well as all other provisions contained in Resolution No. 2016, which deals with ethical specificities in human and social research.

The transcription of the collected data preserved the reliability of the narrative, the confidentiality, secrecy and anonymity of the information.

The research was developed in basic health units located in the administrative region of Guará.

Founded on May 5, 1969, with the initial objective of housing public servants of the Government of the Federal District10, the administrative region was consolidated and achieved great socioeconomic development and currently contains 3 UBSs that serve an estimated population of 140,560 inhabitants, according to data prepared by the Federal District Planning Company[11].

To carry out the research, authorization was first requested from the legal guardians of each unit and then the project was forwarded to the Research Ethics Committee (CEP).

The research subjects were nurses who are part of the Family Health Strategy team of the three basic health units in Guará, who were guaranteed confidentiality, anonymity, confidentiality and data reliability.

The research started after issuing authorization through the embodied opinion No. 5,180,582, and participants were invited to participate through a quick explanation of the purpose of the research.

After acceptance, the nurses informed which day and time were most favorable for the interview. At the time of data collection, the Free and Informed Consent Term (FICT) and the authorization term for the use of sound and image were presented to the nurses, both in two copies, so that, after the signature, the collection was authorized, the dissemination and publication of narratives.

Nurses received an alphanumeric identifier (E1 to E7) in the order in which the interviews were carried out in order to preserve the ethical criteria of the research.

The nurses participating in the research met the following inclusion criteria: being a primary health care nurse for at least one year; enjoy full mental health; be willing to participate in the research; sign the TCLE and the authorization term for the use of image and sound for research purposes.

No cultural, ethnic, economic, social or sexual criteria were considered as an exclusion factor in this research.

The interviews began after authorization from the CEP and signature of the TCLE and the authorization term for the use of image and sound for research purposes, both in two copies, one of which was in the possession of the researcher and the other was delivered to the participant.

The interviews took place in person at a place, date and time chosen by the participants. The narratives were recorded on a cell phone and later transcribed for data analysis where, as a collection instrument, a questionnaire with 10 discursive questions was used.

In total, 07 interviews were carried out, which had data saturation as a criterion for closing the data collection.

The recordings of the interviews were deleted after transcription, and the digitized data will be kept by the researchers for up to 05 years and deleted after this period.

Results e Discussion

The results presented were obtained through interviews with 07 nurses identified in this study with alphanumeric indicators (E1 to E7) to safeguard their identification.

Of the interviewees, three (03) nurses are male and four (04) are female, aged between 28 and 56 years old and time in the profession ranging from 2 to 31 years, as described in the following table:

Table– Profile of the nurses interviewed

IIdentification	Sex	Age	Time Working as a Primary Care Nurse
E1	Feminine	45 years	12 years
E2	Feminine	50 years	20 years
E3	Feminine	33 years	2 years
E4	Male	37 years	2 years
E5	Male	56 years	31 years
E6	Male	28 years	4 years
E7	Feminine	43 years	3 years

The collected data were grouped into seven categories and then transcribed reliably, preserving the anonymity of nurses.

Frequency of calls in urgent and emergency cases

In this category, nurses reported on the demand for urgent and emergency care at the UBS in which they work, and the heterogeneity in the number of frequencies was quite significant. Some units have more and others much less, considering that the latter have a strong relationship with the proximity of the UBS to the Regional Hospital of Guará, as follows:

> We receive few urgent requests, they are more of an emergency. (E 1)
>
> [...] Urgency yes, but emergency is very rare, I don't know if because the Hospital is very close. (E 2)
>
> It's not rare, but it's not frequent either. About once a week, but not very serious cases. Very serious, about once a month. (E 3)
>
> Urgent and emergency care, in primary care, are not routine care. They are more sporadic, more difficult to occur. Approximately one every three months. PCR never seen here. (E 4)
>
> Every day there's a case. (E 5)
>
> Daily, every day, every hour. (E 6)
>
> Never an emergency, because the Guará Regional Hospital is very close. [...] now urgency, it has daily. (E 7)

As it is the gateway to the health care network, the UBS must pay attention to clinical complications of an emergency and/or urgent nature, as it is responsible for the initial reception of all users and their needs.[12]

In their daily work practice, the family health team may be faced with the need to provide care to one or more individuals who present situations with a risk of immediate or mediate death.[5] Therefore, in addition to knowing about the conducts in care to urgencies and emergencies of any nature, attention must be paid to the organization of the service.[13]

Although infrequent in basic health units, circumstances that need immediate care will occur, which makes it mandatory to know where the equipment, medicines and materials to be used are.[14]

Nursing care for urgent and emergency cases in the UBS

In this category, nurses discussed how urgent and emergency care is provided in the UBS where they work, and most professionals mentioned performing risk classification, the first visits performed and the referral of the patient to secondary care, according to reports. Next:

> We do the assessment (risk classification) and the first consultations here. And then, depending on the case, we send them to the hospital together with a nursing technician from our team (E 1)

> In any case that an emergency issue is identified, we are requested to attend. We measure vital signs and assess the general condition of the patient (E 2)
>
> It depends on the case. [...] we provide support and first aid and then we call SAMU or the hospital itself [...] if necessary, we accompany the patient with the ambulance driver (E 3)
>
> The patient is brought by people or even comes on his own after feeling sick near the unit, then first aid and referral to secondary or tertiary care are provided, according to what he needs (E 4)
>
> When they arrive, we welcome this patient, check the main complaint [...] and then we do the shared consultation either with the doctor, or with the nutritionist (E 5)
>
> Patients arrive on demand, the technicians do the screening and then the care proceeds [...] according to the protocols that the Health Department makes available (E 6)
>
> The nursing technician takes care of the demand. [...] and the emergency care itself is all done by the nurse. He performs the initial assessment, sometimes he manages to resolve the demand and sometimes he shares the treatment and conduct with the doctor (E 7)

In addition to being knowledgeable about the organization of the service and having the ability to lead the care of the most diverse cases of urgency and emergency, it is up to the nurse to manage the demand according to the clinical potential of the same. By properly directing patients or providing resolute assistance, nurses collaborate in reducing emergency cases.[15]

Emphasizing the importance of carrying out the effective reception of urgencies and emergencies of users, the assessment of risk and vulnerability is essential to minimize the unsatisfactory evolution of the health problem.[16]

Urgency and emergency services most common in the ubs where they work

In this category, nurses reported which are the most frequent urgent and emergency care that occur in the UBS's where they work and most related the hypertensive peak as the most frequent clinical urgency, according to the following statements:

> Nephrotic crisis, kidney pain, acute pain, severe headache, peak of decompensated diabetes, very high blood pressure. (E 1)
>
> Hypertensive peak, pain and patient with hyperglycemia. (E 2)
>
> Hypertensive peak. I never took a stop here. (E 3)
>
> Abusive use of alcohol and drugs. (E 4)
>
> Now at this moment: fever, suspected dengue and urinary tract infection. (E 5)

> Today they are patients with dengue who cannot get hospital care, urinary tract infection and throat infection. (E 6)
>
> Hypertensive peak, high blood glucose, severe abdominal pain. [...] Sometimes a child arrives with a fever, but it's rare. It is very phased [...] but there is always a hypertensive peak. (E 7)

The excessive spontaneous demand of users due to decompensation of chronic diseases such as Arterial Hypertension and Diabetes Mellitus, in addition to being associated with greater morbidity and mortality, causes damage to the organizational dynamics of care at the basic health unit and evidences care failures. This high demand also reflects the prevalence of the care model centered on the disease and focused on the physician[17-18], which is contrary to the ideal multidisciplinary care for this public.[19]

Service infrastructure

In this category, nurses gave their opinion on whether or not the physical structure of the UBS was adequate for urgent and emergency care in primary care. Of the seven respondents, only one answered yes. The others, in addition to disagreeing, brought the following reports:

> More or less, the infrastructure could improve a bit. But as we are on the side of the hospital, we can stabilize [...] and have this service. Primary care, its previous focus, was left a little aside (with the COVID pandemic), and we are more focused on acute emergency demands, chronic cases and the history of the PSF itself, of prevention and promotion, has fallen a bit. in disuse. [...] in the case of cardiac arrest, we have no structure (E 1).
>
> More urgent (adequate) [...] Emergency we have a deficit [...] not in human resources, but in hospital equipment. (E 2)
>
> Not. We tried to make an emergency room, where the stop cart, the medications, the oxygen, in short, are. But we don't have some hospital facilities. (E 3)
>
> Not suitable even because it is not a unit intended for that. But we can perform the first service and forward it to the competent service. (E 4)
>
> No [...]. We weren't created for this, it's all based on the jeitinho, the improvisation. That primary part was left out. The objective they set for us today is to meet the emergencies that appear, without structure. We don't have a laboratory, staff, pharmacy. We pretend to the patient that everything is fine, that we are solving his problem, but we are not, we are just pretending, deceiving the patient. And for the hospital this is a very comfortable situation. But the problem is that the purpose of the Basic Unit is not to reduce the hospital queue, it is to do preventive work. Consequently, in the long term this will happen, reducing the hospital queue, but that is not our objective. (E 5)
>
> Yup. (E 6)
>
> Not emergency. We don't have a defibrillator, the stop cart doesn't have all the medicines that we've already looked at, there's no reception room

> where, for example, you put the patient on oxygen [...] the unit is not prepared to attend emergencies. (E 7)

The structure of a UBS must be able to meet both the work needs of the Family Health Team and the reception of the spontaneous health demands of the enrolled population, being, therefore, adapted to the local reality, the number of the population served and the specificity of the service.[20]

And although some of the interviewees said that the UBS is not intended for urgent and emergency care, the precepts of the Ministry of Health state that care for acute, traumatic, clinical or psychiatric conditions that may result in suffering, sequelae or death, is the responsibility of all entities that integrate the SUS network, which includes the UBS.[21]

Several studies developed with UBS nurses address the deficit in infrastructure and materials. As one that showed that 100% of nurses reported lack of adequate infrastructure and equipment necessary for urgent and emergency care and also mentioned that this impairs the quality of care[21]. Validating, another research carried out in Rio Grande do Sul with nine professionals from two PHC units in this state, revealed that they did not have the basic supplies for the provision of urgent and emergency care and that nurses considered the units unsuitable for this type of care. attendance.[22]

Still on this topic, a study carried out in 13 UBS attested that the only material needed for urgent and emergency care found in all units were procedure gloves. The automatic defibrillator (AED) was present in only one unit, however the stop cars presented obstacles to access.[23]

Training acquired during nursing graduation for professional performance in urgent and emergency situations

This category deals with theoretical and practical knowledge acquired during nursing graduation for nursing care in urgent and emergency cases. All respondents reported that graduation was insufficient, as follows:

> We don't have that training. [...] We acquire this with practice, with time, [...] with what we propose to learn. But urgency and emergency do not have in college, it has an overview, but the overview does not guarantee assistance, an effective practice. (E 1)

> [...] I didn't have training in urgency and emergency [...] I had training later, working in the basic unit with SAMU, where we had this training. But as he does not have this daily practice, he ends up having difficulty in an emergency. (E 2)

> Graduation did not prepare me, it gave me a foundation. But I think it is not restricted to the area of urgency and emergency. It's a matter of the course as a whole: the college provides support, but it's really everyday life and your studies afterward that will give you the security to act. (E 3)

> I think the graduation is a little weak, even because of the number of higher education courses that exist today of low quality. (E 4)

> It was very low, very small, we almost didn't have it, we didn't leave prepared (E 5)

> Nowadays, in my view, both public and private institutions have the vision of the generalist nurse. They want to teach everything, but at the same time they don't delve into anything. So I think that just the graduation to attend urgent and emergency cases is not enough. (E 6)

> In my training it was zero. [...] 90% of the things I do in my day to day I didn't learn in college [...] It was day to day, even here at UBS I learn with my colleagues, with the doctors, I learn a lot here. In college, like nothing. [...] I did an internship for less than a semester, I rarely went to primary care. [...] It wasn't even from the time of family health, much less urgent and emergency, we didn't even do an internship in it. (E 7)

With advances in the organization of the Brazilian emergency care system regarding the incorporation of new technologies and the definition of concepts, it is expected that professional training will also evolve and thus enable the reception, assistance and referral of users affected by diseases. acute only when the complexity of the service in question makes continuity of care impossible.[24-25]

To this end, the undergraduate Nursing course should guide the teaching of diseases of greater national relevance, covering all levels of care where nursing works through the progressive development of their skills.[26-27]

The national curriculum guidelines for the Undergraduate Nursing Course establish the profile of the graduate/professional student as a nurse with a generalist, humanist, critical and reflective background, able to identify and intervene in the most prevalent cases of health-disease in the national epidemiological profile, with actions based on scientific and intellectual rigor and ethical principles.[28]

Thus, nursing training for the care of patients in critical conditions must cover organic imbalances and facilitating strategies for care practice. Such strategies should make it possible to recognize current clinical conditions in addition to identifying situations in which there is potential for clinical worsening, so that adequate and effective management can be implemented early.[29-30]

Urgent and emergency training course

In this category, nurses were asked if they had training in urgency and emergency and, if so, if the training in question had been provided by the DF health department or carried out through their own resources.

Five of the nurses said they had training in this area, as reported below:

> I did a training a long time ago, it must be about 15 years old. Paid through own resources. (E 1)

> Yes, there's been a while. Funded by the health department itself. (E 2)

> I took some courses, the last one in 2019. All through my own resources. (E3)

> Yes, I did two residencies and all these courses I took were done during the residency. (E 4)
>
> Not. We had CONVERT, by the secretariat, when ubs was transformed into the family health model. But it was something very stuffed down our throats, [...] very imposed. And it was not useful for us to master the subject, we were taking it day by day. (E 5)
>
> Not. (E 6)
>
> I've done it mainly in the child part because I've worked in the ICU in neonatology, and I've also done some SAMU training on my own. [...] Most courses were financed by the service: SAMU, Society of Pediatrics. There is always, but in the hospital part it seems that there was more, for primary care there is very little (courses) or they are not enough for us, I don't know. There is almost no urgency. (E 7)

The need to have agile clinical reasoning to guide the decision-making process in urgent and emergency care reinforces the importance of planning educational training and specialization actions aimed at primary care nurses.[31]

About theoretical knowledge and practical skills in Basic Life Support (BLS), a study whose objective was to evaluate the care of adults in cardiorespiratory arrest before and after an educational intervention concluded that most PHC professionals demonstrated technical incapacity to act in the face of the identification of a PCR. The professionals did not know how to use the defibrillator properly, they were not able to recognize whether the heart rhythm was shockable or not, and most classified their knowledge as poor. Upon evaluation in simulated practice, most did not know how to perform the BLS maneuvers.[32]

A study carried out in the city of Maringá, Paraná, found a deficit in the identification of urgent and emergency situations, with emphasis on the difficulty in the use of essential drugs in the first care[33] and, in the municipality of Cajazeiras, in the state of Paraíba, a similar study showed that primary care professionals health professionals had insufficient professional qualifications for urgent and emergency care, and on the definition of urgency and emergency.[21]

In order to minimize risks to life and enable quality, speed, safety and quality of care, the health team must be able to identify, through initial assessment, the signs and symptoms of severity of each age group. The presence of a professional with insufficient knowledge can contribute to the worsening of the user's clinical condition.[34]

Important topics in urgency and emergency training for primary care nurses

In this category, nurses were able to express their opinion on which topics should be worked on in primary care training.

The answers were very diverse because they reflect the reality of service to the population enrolled in each UBS, according to reports:

> CPA (cardiopulmonary arrest), stroke, delivery. (E 1)
>
> They would be more emergency issues even [...] cardiorespiratory arrest (E 2)
>
> Symptoms of infarction, hypertensive spikes, hyperglycemia. (E 3)
>
> Urgency for trauma, overdose and alcoholic coma. (E 4)
>
> I think this shouldn't be a priority for us. We don't deal with CPA and seizures every day, that would be more useful in the emergency room. [...] if I had answered this question, I would be agreeing with the fact that we accept these demands. [...] in the last two months I have been attending to many chronic patients who were forgotten in the last two years of the pandemic, so they are coming in very decompensated. Decompensated DM, hypertension [...] we needed to focus on these cases [...] (E 5)
>
> The main issue would be the use of protocols. The protocols exist, they are updated, but we do not have the guidance on conduct. So, on our own, we end up seeking (knowledge) to be able to provide better care for the patient. [...] I started to practice [...] I asked questions with older nurses and I managed to assimilate well [...] But I have a colleague who took over with me who felt a lot of difficulty [...] because it came from the attention hospital and primary care is another world. (E 6)
>
> I think there should be courses for these more prevalent cases: hypertensive peaks, children who arrive convulsing. And nobody, and I'm sure of what I'm talking about because I've been through four UBS's, nobody has training or structure if you need to intubate the patient. The doctor will not know how to intubate, he will not know how to ventilate the patient, which medication he will give. If you have a defibrillator, no one will know how to use it. [...] There is no automatic defibrillator here, neither here nor in most UBS's. The Automatic is still telling you what to do, but still I'm wondering, will people know what to do in that ruckus? Will you know how to use it? I would need this training, but this is generally for the nursing area, hospital area as well. (E 7)

The reports presented show interest in primary care nurses in carrying out courses and reveal difficulties that can compromise adequate care for users who arrive at the unit in need of urgent and emergency care.

This fact is corroborated by several studies that demonstrate that updates and training are essential for the provision of quality assistance to the user. Such research evidenced the deficient knowledge of professionals working in primary care in the face of urgent situations, a fact that points to the need to implement permanent education that allows the user to be assisted with appropriate behaviors.[21]

In the urgency and emergency scenario, Cardiopulmonary Arrest (CPA) is one of the most common complications35. The user who is assisted by a health professional who has training in Basic Life Support (BLS) has a considerable increase in the survival rate36. However, professionals often present deficits in

the face of a CRA, such as the difficulty of the situation presented and the ineffective performance of Cardiopulmonary Resuscitation (CPR) sequences.[36-37]

Permanent Education in Health (EPS), implemented by means of ordinance GM/MS nº 1.996, of August 20, 2007, aims at training and qualifying health professionals based on the population's needs so that, by obtaining learning and reflection, there are daily changes in conduct that promote quality service to the user.

Final Consideration

This research sought to understand how urgent and emergency care occurs in primary care from the nurse's point of view. They were asked about various aspects ranging from their academic training, training and even the infrastructure of the UBS where they work.

Based on the information collected, it is considered that although there is a demand for urgency and emergency in primary care, the training of professionals and the provision of basic infrastructure are not reality.

The collected narratives made it possible to achieve the general objective of the research.

The following questions can also be asked: is the search for training on its own capable of guaranteeing the effectiveness of urgent and emergency care in primary care? Is the family health team, with generalist training, prepared to provide assistance in urgent and emergency cases? Wouldn't it be better to have urgent and emergency service available for these units?

Therefore, many questions emerge from this study. In an attempt to find a solution for these services, we are faced with the attributions of primary care and the need it has to promote health, prevent diseases and, as far as possible, promote recovery.

The nurse, as the main subject in this scenario of so many controversies, is in fact unstable and very vulnerable in each of the consultations. It is up to the SUS to rethink where the urgent and emergency service should actually be provided, provide trained human resources and if it decides that this type of service will also be provided at the UBS, it should review the physical structure and material resources for this.

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References

1. O que é Atenção Primária. Portal da Secretária de Atenção Primária a Saúde [Internet]. Brasília. [citado em 2022 Mai 20]. Disponível em: https://aps.saude.gov.br/smp/smpoquee.

2. Brasil. Portaria nº 648/ 2006. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica para o Programa Saúde da Família (PSF) e o Programa Agentes Comunitários de Saúde (PACS) [Internet]. 2006 [citado em 2022 Mai 17].

Disponível1. O que é Atenção Primária. Portal da Secretária de Atenção Primária a Saúde [Internet]. Brasília. [citado em 2022 Mai 20]. Disponível em: https://aps.saude.gov.br/smp/smpoquee.

2. Brasil. Portaria nº 648/ 2006. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica para o Programa Saúde da Família (PSF) e o Programa Agentes Comunitários de Saúde (PACS) [Internet]. 2006 [citado em 2022 Mai 17]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/prtGM648_20060328.pdf.

3. Oliveira FP, Vanni T, Pinto HA, Santos JTR, Figueredo AM, et al. Mais Médicos: um programa brasileiro em uma perspectiva internacional. Interface [Internet]. Botucatu. 2015 [citado em 2022 Mai 17]; 19(54):623-34. Doi: https://doi.org/10.1590/1807-57622014.1142.

4. Atenção Primária à Saúde: o que é?. Sociedade Brasileira de Medicina de Família e Comunidade [Internet]. Rio de Janeiro. 2016 [citado em 2021 Mar 11]. Disponível em: https://www.sbmfc.org.br/noticias/atencao-primaria-a-saude-o-que-e/.

5. Melo MCB, Silva NLC. Urgência em atenção básica em saúde. Belo Horizonte: Nescon/UFMG; 2011. 140 p.

6. Coelho FA, Oliveira MACA, Fortunato RS, Pereira RG. Evidências da contribuição da atenção primária de qualidade no serviço de atendimento de urgência e emergência: uma abordagem do município de Ubá-MG [Internet]. 2016 [citado em 2021 Mar 12]; 1. Disponível em: https://revista.unifagoc.edu.br/index.php/saude/article/view/6/144.

7. Garcia JACL. Programa de Pós-Graduação em Enfermagem [master's thesis]. Alagoas. Universidade federal de Alagoas; 2019. 84 p. disponível em: http://www.repositorio.ufal.br/jspui/handle/riufal/6617.

8. Baratieri T, Almeida KP, Lentsck MH, Natal S. Percepções de usuários atendidos em um Pronto Atendimento: olhar sobre a Atenção Primária à Saúde. Revista de Saúde pública do paraná [Internet]. 2017 [citado em 2021 Mar 12]; 18 (1): 54-63. Doi: https://doi.org/10.5433/15177130-2017v18n1p54.

9. Gil AC. Como elaborar projetos de pesquisa. 4. Ed. São Paulo: Atlas, 2008.

10. Brasil. Portaria nº 77/2017.Estabelece a Política de Atenção Primária à Saúde do Distrito Federal [Internet]. 2017 [citado em 2021 Mai 20]. Disponível em: http://www.sinj.df.gov.br/sinj/Norma/b41d856d8d554d4b95431cdd9ee00521/Portaria_77_14_02_2017.htm.

11. Vasconcelos AMN, Dutra KT, Oliveira MB, Neto BAM. Projeções Populacionais para as Regiões Administrativas do Distrito Federal 2010-2020 [Internet]. 2019 [citado em 2021 Mai 30]. Disponível em: https://www.codeplan.df.gov.br/wp-content/uploads/2018/03/NT-Proje%C3%A7%C3%B5es-Populacionais-para-as-Regi%C3%B5es-Administrativas-do-Distrito-Federal.pdf.

12. Sguario R, Joseani P. O Enfretamento do Enfermeiro da Estratégia Saúde da Família na Urgência e Emergência [dissertation on the Internet]. Chapecó. 2017 [citado em 2021 Mai 21]. 18 p. Disponível em: http://www.uniedu.sed.sc.gov.br/wp-content/uploads/2017/08/TCC-Raquel-Sgu%C3%A1rio-ok.pdf.

13. Oliveira M, Trindade M F. Atendimento De Urgência e Emergência na Rede de Atenção Básica de Saúde: Análise do Papel do Enfermeiro e o Processo de Acolhimento. [Internet]. 2010 [citado em 2022 Mar 23] 12 p. Disponível em: http://periodicos.estacio.br/index.php/revistahorus/article/view/3978

14. Santana ML. Demanda espontânea e planejamento estratégico situacional no Programa Saúde da Família de Pindamonhangaba. Rev Bras Med Fam Comunidade [Internet]. 2011 [citado em 2022 Fev 01]; 6(19):133-41. Disponível em: DOI: https://doi.org/10.5712/rbmfc6(19)163.

15. Lima MADS, Ramos DD, Rosa RB, Nauderer TM, Davis R. Acesso e acolhimento em unidades de saúde na visão dos usuários. Revista Acta Paulista de Enfermagem [Internet]. 2007 [citado em 2022 Mai 23]; 20 (1): 7-12. Disponível em: https://lume.ufrgs.br/bitstream/handle/10183/38468/000623819.pdf?sequence=1&isAllowed=y.

16. Farias DC, Celino SDM, Peixoto JBS, Barbosa ML, Costa GMC. Acolhimento e Resolubilidade das Urgências na Estratégia Saúde da Família. Rev. bras. educ. med [Internet]. 2015 [citado em 2022 Mai 05];39 (1). Disponível em: https://doi.org/10.1590/1981-52712015v39n1e00472014.

17. Oliveira LML, Tunin ASM, Silva FC. Acolhimento: concepções, implicações no processo de trabalho e na atenção em saúde. Rev. APS [Internet]. 2008 [citado em 2022 Mai 05]; 11 (4): 362-373. Disponível em: https://periodicos.ufjf.br/index.php/aps/article/view/14297/7735.

18. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política Nacional de Atenção Básica [Internet]. 2012 [citado em 2022 Mai 05]. 114 p. Disponível em: http://189.28.128.100/dab/docs/publicacoes/geral/pnab.pdf.

19. Franco CM, Franco TB. Linhas do cuidado integral: uma proposta de organização da rede de saúde [master's thesis]. Universidade Federal Fluminense; 2012. 13 p. Disponível em: https://edisciplinas.usp.br/pluginfile.php/445762/mod_resource/content/1/LINHAS_DO_CUIDADO_INTEGRAL.pdf.

20. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Manual de estrutura física das unidades básicas de saúde: saúde da família [Internet]. 2008 [citado em Mai 05]. 52 p. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/manual_estrutura_fisica_ubs.pdf.

21. Nóbrega DM, Bezerra ALD, Sousa MNA. Conhecimentos, Atitudes e Práticas em Urgência e Emergência na Atenção Primaria à Saúde. Revista Eletrônica da Fainor [Internet]. Vitória da Conquista. 2015 [citado em 2022 Mai 19]; 8(2):141-157. Disponível em: https://www.researchgate.net/publication/318457138_CONHECIMENTOS_ATITUDES_E_PRATICAS_EM_URGENCIA_E_EMERGENCIA_NA_ATENCAO_PRIMARIA_A_SAUDE/link/596bbbd6aca2728ca6861a26/download.

22. Oliveira PS, Diefenbach GD, Colomé J, Buriol D, Rosas H, et al. Atuação profissional nas urgências/ emergências em unidades básicas de saúde. Rev Pesq. Cuid. Fundam [Internet]. 2020 [citado em 2022 Mai 19]; 12: 820-826. Doi: https://doi.org/10.9789/2175-5361.rpcfo.v12.75.

23. Cassinelli F, Melo ES, Costa CRB, Reis RK. Avaliação da estrutura na Atenção primária em saúde para o suporte básico de vida. Rev. Saúde e Pesquisa [Internet]. Maringá (PR). 2019 [citado em 2022 Mai 19]; 12 (2): 317-322. Doi: https://doi.org/10.17765/2176-9206.2019v12n2p317-322.

24. Guedes MVC, Henriques ACPT, Lima MMN.Acolhimento em um serviço de emergência: percepção dos usuários. Rev Bras Enferm. [Internet]. Brasília. 2013 [citado em 2022 Mai 23]; 66 (1): 31-7. Disponível em: https://www.scielo.br/j/reben/a/ntFtXDpDYYV6Fbpgtp6gfBc/?format=pdf&lang=pt.

25. Weykamp JM, Pickersgill CS, Cecagno D, Vieira FP, Crecencia H, Siqueira H. Acolhimento com classificação de risco nos serviços de urgência e emergência: aplicabilidade na enfermagem. Rev RENE [Internet]. 2015 [citado em 2022 Mai 22]; 16 (3): 327-36. Disponível em: http://www.periodicos.ufc.br/rene/article/view/2768/2150.

26. Lelli LB, Bernadino E, Peres AM, Fabriz LA. Estratégias gerenciais para o desenvolvimento de competências em enfermagem em hospital de ensino. Cogitare Enferm [Internet]. 2012 [citado em 2022 Mai 22]; 17 (2): 262-9. Disponível em: https://revistas.ufpr.br/cogitare/article/view/24932/18480.

27.Hyndman B. Rumo ao desenvolvimento de competências de promoção da saúde baseadas em habilidades: a experiência canadense. Glob Health Promot [Internet]. 2009 [citado em 2022 Mai 15]; 16 (2): 51-5. Disponível em: https://doi.org/10.1177/1757975909104105.

28. Brasil. Conselho Nacional de Educação. Câmara de Educação Superior. Resolução CNE/CES 3/2001. Institui Diretrizes Curriculares Nacionais do Curso de Graduação em Enfermagem. [Internet]. 2001. [Citado em 2022 Mai. 17] Disponível em: http://portal.mec.gov.br/cne/arquivos/pdf/CES03.pdf

29. Merighi MAB, Jesus MCP, Domingos SRF, Oliveira DM, Ito TN. Ensinar e aprender no campo clínico: perspectiva de docentes, enfermeiras e estudantes de enfermagem. Rev Bras Enferm [Internet]. 2014 [citado em 2022 mai 19]; 67 (4): 505-11. Disponível em: https://doi.org/10.1590/0034-7167.2014670402

30. Aued GK, Bernardino E, Peres AM, Lacerda MR, Dallaire C, Ribas EN. Clinical competences of nursing assistants: a strategy for people management. Rev Bras Enferm [Internet]. Brasilia. 2016 [citado em 2022 Mai 23]; 69 (1): 130-7. Doi: https://doi.org/10.1590/0034-7167.2016690119i.

31. Deslandes SF. Frágeis deuses: profissionais da emergência entre os danos da violência e a recriação da vida. [Internet]. Rio de Janeiro (RJ): Fiocruz. 2002 [citado em 2022 Mai 23]. 248 p. Doi: https://doi.org/10.7476/9788575415283.

32. Santos APM, Santana MMR, Tavares FL, Toledo LV, Moreira TR, et al. Conhecimentos e habilidades dos profissionais da atenção primária à saúde sobre suporte básico de vida. Rev. HU [Internet]. 2019 [citado em 2022 Mai 23]; 23 (3): 586-600. Doi: https://doi.org/10.34019/1982-8047.2019.v45.26815

33.Omena MBSF, et al. Intervenção educativa sobre urgência e emergência na Atenção Básica de Saúde. Rev. O Mundo da Saúde [Internet]. 2019 [citado em 2022 Mai 23]; 43 (3): 586-600. Disponível em:

https://revistamundodasaude.emnuvens.com.br/mundodasaude/article/view/41/886.

34. Laurindo MV, Ribeiro LML, Lima OS, Bastos ECB,Costa ANB, et al. A importância de adaptar as unidades básicas de saúde para o atendimento de urgência e emergência de menor complexidade. Rev. Hea [Internet]. 2019 [citado em 2022 Mai 23]; 2 (3)? 1688-1709. Disponível em: https://www.brazilianjournals.com/index.php/BJHR/article/view/1434/1551.

35. Destaque das diretrizes de RCP e ACE. AMERICAN HEART ASSOCIATION [Internet].2020 [citado em 2022 Mai 25]. Disponível em: Disponível em: https://cpr.heart.org/-/media/CPR-Files/CPR-Guidelines-Files/Highlights/Hghlghts_2020ECCGuidelines_Portuguese.pdf.

36. Monteiro MJFSP, Pereira MCARS, Carvalho RMBC, Carril ESB, Carril MFB, Rodrigues VMCP. Capacitação de trabalhadores em suporte básico de vida. Rev Cuid [Intenet].2018 [citado em 2022 Mai 23]; 9(2): 2117-26. Doi: http://dx.doi.org/10.15649/cuidarte.v9i2.505.

37. Junior LEM, Souza FM, Almeida LC, Veloso GGV, Caldeira AP. Avaliação de treinamento em suporte básico de vida. Rev Bras Med Fam Comunidade [Internet]. 2016 [citado em 2022 Mai 24]; 11 (38): 1-10. Disponível em: https://rbmfc.org.br/rbmfc/article/view/1231.

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Association between level of academic stress and resilience in health students

Associação entre nível de estresse acadêmico e resiliência em estudantes da área de saúde

Asociación entre nivel de estrés académico y resiliencia en estudiantes de salud

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RESUMO

Objetivo: Analisar a associação entre nível de estresse acadêmico e resiliência em estudantes da área de saúde. **Método:** Trata-se de um quantitativo, transversal realizado com 34 discentes da área de saúde de uma faculdade privada de Goiás, via google forms, de novembro a dezembro de 2021 por meio de Formulário para caracterização sociodemográfica e acadêmica e; Instrumento para Avaliação do Estresse em Estudantes de Enfermagem e Escala de Resiliência de Wagnild & Young. A análise ocorreu no Statistical Package for Social Sciences (SPSS), versão 20.0. **Resultados:** Verificou-se predomínio de discentes com alto nível de estresse geral (52,9%) e moderada resiliência (41,2%). Predominaram estudantes com baixo nível de estresse na realização de Atividades Práticas (64,7%), na comunicação profissional (58,8%), no gerenciamento do tempo (76,5%), relacionado ao ambiente (82,4%), na formação profissional (64,7%) e nas atividades teórica (58,8%). Observou-se relação significativa entre o nível de estresse relacionado à formação profissional e o nível de resiliência. **Conclusão:** confirma-se a relação entre resiliência e estresse acadêmico, sendo que a resiliência atua positivamente sobre o estresse sendo um fator protetor à saúde uma vez que pode fortalecer à capacidade de adaptação do discente às adversidades da vida e do contexto acadêmico.
Descritores: Estresse Psicológico; Estudantes; Qualidade de Vida.

ABSTRACT

Objective: To analyze the association between level of academic stress and resilience in health students. **Method**: This is a quantitative, cross-sectional study with 34 students from the health area of a private college in Goiás, via google forms, from November to December 2021 through a Form for sociodemographic and academic characterization and; Instrument for Stress Assessment in Nursing Students and Wagnild & Young Resilience Scale. The analysis took place in the Statistical Package for Social Sciences (SPSS), version 20.0. **Results:** There was a predominance of students with a high level of general stress (52.9%) and moderate resilience (41.2%). Students with low stress level in performing Practical Activities (64.7%), professional communication (58.8%), time management (76.5%), related to the environment (82.4%), professional training (64.7%) and theoretical activities (58.8%) predominated. A significant relationship was observed between the level of stress related to professional training and the level of resilience. **Conclusion**: the relationship between resilience and academic stress is confirmed, and resilience acts positively on stress and is a protective factor to health, since it can strengthen the student's ability to adapt to the adversities of life and the academic context.
Descriptors: Psychological Stress; Students; Quality of Life.

RESUMEN

Objetivo: Analizar la asociación entre nivel de estrés académico y resiliencia en estudiantes de salud. **Método:** Se trata de un estudio cuantitativo, transversal, con 34 estudiantes del área de salud de una universidad privada en Goiás, a través de formularios de google, de noviembre a diciembre de 2021 a través de un Formulario de caracterización sociodemográfica y académica y; Instrumento para la Evaluación del Estrés en Estudiantes de Enfermería y Escala de Resiliencia de Wagnild y Young. El análisis se realizó en el Statistical Package for Social Sciences (SPSS), versión 20.0. **Resultados:** Predominaron los estudiantes con alto nivel de estrés general (52,9%) y resiliencia moderada (41,2%). Predominaron los estudiantes con bajo nivel de estrés en la realización de Actividades Prácticas (64,7%), comunicación profesional (58,8%), gestión del tiempo (76,5%), relacionadas con el entorno (82,4%), formación profesional (64,7%) y actividades teóricas (58,8%). Se observó una relación significativa entre el nivel de estrés relacionado con la formación profesional y el nivel de resiliencia. **Conclusión**: se confirma la relación entre resiliencia y estrés académico, y la resiliencia actúa positivamente sobre el estrés y es un factor protector para la salud, ya que puede fortalecer la capacidad del estudiante para adaptarse a las adversidades de la vida y al contexto académico.
Descriptores: Estrés Psicológico; Estudiantes; Calidad de vida.

ORIGINAL

Introduction

Academics in the health area are often subjected to stressful situations, which may be related to the need for physiological and psychological adaptation within the university environment, clinical experiences and excessive tasks, demands related to academic activities, as well as assessments, routines and decision-making.[1] Coping with unique situations in this training area can also overload students' adaptive resources, leading them to academic stress.[2]

Stress, according to the interactionist model, is defined as any stimulus that demands from the external or internal environment and that taxes or exceeds the sources of adaptation of an individual or social system.[3] In a survey of 34 health students from a private university in the state of Goiás, it was identified that 52.9% have a high level of stress, 23.5% have a high stress in theoretical activities, 20.6% have a high stress in professional training and 20% have a medium level of stress related to carrying out practical activities.[4]

In this sense, scientific studies with the theme "stress in university students" have gained more space, because when not identified and untreated, it can affect academic performance, resulting in physical or psychological illness and withdrawal from academic training.[2-5]

On the other hand, to deal with the effects related to stress, there is resilience. It is understood as the ability to face problems and pressures according to the social sciences. It can also be understood as an emotional, environmental, sociocultural and cognitive process that facilitates the individual's adaptation to new situations. In addition, it can be recognized as a way of dealing with stressful experiences with fewer negative outcomes.[6]

Considering that Resilience comprises a process of experiencing recognition and frustration, currently, scientific studies on it have been highlighted based on its importance for health and human development.[6] This is because it has been identified as an individual skill capable of to promote health by minimizing stress, anxiety, anger and depression. As an example, in a study carried out with 138 students in the health area of a college located in the surroundings of Brasília - DF, points out that 21.7% of these students have high resilience and 71.7% have a moderate level of resilience. Resilient students have lower levels of stress and depression, which directly influences their quality of life.[7]

However, despite the growing interest in studies on academic stress and resilience, few studies analyze the association between these phenomena in detail, especially involving students from different courses in the field of health. As an example, a research with 56 nursing students from Rio de Janeiro identified that 39.3% had high resilience, 37.5% moderate resilience and 23.2% low resilience.8 However, this study8 did not assess stress and its association with resilience in the academic field, which would allow expanding the findings considering the specifics of each course.

In this sense, the objective of this study was to analyze the association between academic stress level and resilience in health students.

Method

This is a quantitative, transversal and descriptive study carried out with 34 students in the health area of a private college in the state of Goiás. Students regularly enrolled in all stages of undergraduate courses belonging to the health area (nursing, pharmacy and physiotherapy courses) from all institutions and over 18 years old were included. Those who participated in the research as data collection assistants were excluded; and that, during the data collection period, they were in exchange.

Data were collected from November to December 2021, via google forms, using the following instruments: Form for sociodemographic and academic characterization; Instrument for Assessment of Stress in Nursing Students (AEEE) and Wagnild & Young Resilience Scale. After obtaining the email addresses of the students enrolled in the courses in the health area from the 1st to the 8th semesters, the ICF was sent and the students were invited to participate in the research. After the acceptance and online signature of the TCLE, an email was sent with the link to access the data collection protocol, with a period of ten days to complete it.

The characterization form included the following sociodemographic variables: date of birth, sex, children, marital status, who lives with, performing leisure activities, practicing sports, sources of income, financial dependent, sufficient monthly income for maintenance, use of a drug or substance (tea, coffee, energy drinks, etc.) to inhibit sleep and to achieve sleep; smoking and alcohol consumption; and academic: time taken to get to the HEI, means of transport, workload in the current semester, carrying out extracurricular activities, work activity, professional experience in the health area, satisfaction with the course and interest in dropping out of the course.

The Instrument for Assessing Stress in Nursing Students (AEEE) was proposed by Costa and Polak in 2009[9] and consists of 30 items grouped into six domains: Carrying out practical activities (Items 4,5,7,9,12 and 21); Professional communication (Items 6,8,16 and 20); Time management (Items 3,18,23, 26 and 30); Environment (Items 11,22,24 and 29); Professional training (Items 1,15,17,19,25 and 27); Theoretical activity (Items 2,10,13,14 and 28). The items are presented on a four-point Likert scale in which: zero – "I do not experience the situation"; one- "I don't feel stressed about the situation"; two – "I feel little stressed about the situation"; and three- "I feel very stressed about the situation.[9] To identify the intensity of stress by factor of the AEEE, risk quartiles defined by the authors of the instrument were used.[9]

The resilience scale, developed by Wagnild & Young with adult women[10], was adapted and translated into the Brazilian reality with public school students in 2005[10]. This instrument measures levels of positive psychosocial adaptation in the face of important life events. It has 25 items on a Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), distributed into 3 factors, namely: Actions and Values Resolutions (Items 1,2,6,8,10,12, 14,16,18,19,21,23,24 and 25), Independence and determination (Items 5,7,9,11,13 and 22) and Self-confidence and ability to adapt to situations (Items 3,4,15, 17 and 20)[11-12]. These factors correspond to attributes that support coping with life's problems, including competence in social relationships, the ability to solve problems, the achievement of autonomy and the meaning or purpose for life and the future[11-12]. The scale

scores range from 25 to 175 points, and the higher the score, the higher the subject's resilience. A result below 121 is considered by the authors of the instrument as "low resilience"; between 121 and 145, as "moderate resilience"; and above 145, "high resilience"[10].

For data organization and analysis, a database was created in Excel (Office 2010) and the Statistical Package for Social Sciences (SPSS, version 20.0) program was used. Qualitative variables will be presented in absolute values (n) and percentages (n%). The quantitative variables will be exposed in descriptive measures: minimum and maximum values, mean and standard deviation. Cronbach's alpha will be applied to analyze the reliability of the applied instruments. All quantitative variables were evaluated by the Kolmogorov-Smirnov test to verify their adequacy to the normal distribution. To verify the relationship between general and domain stress variables with resilience levels, Pearson's correlation tests were used for parametric data or Spearman's correlation test for variables with non-normal distribution. Values of $p<0.05$ were considered statistically significant.

In compliance with the Regulatory Guidelines and Norms for Research Involving Human Beings (Resolution CNS 466/12), this project was submitted to the Research Ethics Committee (CEP) of the private higher education institution in the state of Goiás, and was approved in July 13, 2020 under opinion number 4,151,512.

Results

The initial population of the study consisted of 215 students from courses in the health area (Nursing, Pharmacy and Physiotherapy), and 34 students agreed to participate in the research and formed the access population for this research. In table 1, sociodemographic and academic data (Categorical variables) of students in the health area are presented.

Table 1- Sociodemographic and academic data (Categorical variables) of students in the health area (n=34). Goiás, 2022

Variable	Category	n	%
Sex	Feminine	27	79,4
	Masculine	7	20,6
Marital Status	Married	11	32,4
	Divorced	2	5,9
	Separate	3	8,8
	Single	18	52,9
Sons	No	18	52,9
	Yes	16	47,1
Sports Practice	No	24	70,6
	Yes	10	29,4
Leisure Practice	No	13	38,2
	Yes	21	61,8
Sufficient Monthly Income	No	20	58,8
	Yes	14	41,2
Uses drugs to inhibit sleep?	No	27	79,4
	Yes	7	20,6
Use sleeping pills?	No	31	91,2
	Yes	3	8,8
Do you have a smoking habit?	No, I never smoked	32	94,1
	Yes, I smoke.	2	5,9
Do you drink alcohol?	No, I never drank.	17	50

	I did not stop.	1	2,9
	Yes, I drink	16	47,1
Job	No	23	67,6
	Yes	11	32,4

Variable	Min-Max.	Average	Standart-Deviation
Idade	17-47	29,1	8,26

Above, there is a predominance of female students (79.4%), single (52.9%), without children (52.9%) and 58.8% say that their monthly income is not enough to maintenance. Furthermore, 70.6% do not practice sports and 61.8% do leisure activities, 79.4% use medication to inhibit sleep, 47.1% have the habit of drinking alcohol and 5.9% have the habit of smoking. Table 2 shows the distribution of students according to levels of resilience, general stress and by domain.

Table 2- Distribution of students according to levels of resilience, general stress and by domain. Goiás, 2022.

Variable	Level	n	%
General Stress	High	18	52,9
	Low	16	47,1
Resilience	Reduced	9	26,5
	Moderate	14	41,2
	High	11	32,4
Carrying out practical activities	Low	22	64,7
	Medium	7	20,6
	High	3	8,8
	Very High	2	5,9
Professional Communication	Low	20	58,8
	Medium	5	14,7
	High	4	11,8
	Very High	5	14,7
Time management	Low	26	76,5
	Medium	4	11,8
	High	3	8,8
	Very High	1	2,9
Environment	Low	28	82,4
	Medium	4	11,8
	High	0	0
	Very High	2	5,9
Professional qualification	Low	22	64,7
	Medium	1	2,9
	High	4	11,8
	Very High	7	20,6
Theoretical Activity	Low	20	58,8
	Medium	5	14,7
	High	8	23,5
	Very High	1	2,9

We can see, in the table above, that there was a predominance of students with a high level of general stress (52.9%), low level of stress in all domains of the AEEE: Carrying out Practical Activities (64.7%), Professional Communication (58.8%), Time Management (76.5%), Environment (82.4%), Professional Training (64.7%) and Theoretical Activity (58.8%). Furthermore, the level of resilience

among students was moderate (n=41.2%). Table 3 presents the analysis of association between general level of stress and resilience

Table 3- Analysis of association between stress level (General and by domain) and resilience among students in the health area. Goiás, 2022.

	Resilience					
	Class	**n/%**	**Reduced**	**Moderate**	**High**	**P value**
Carrying out practical activities	Low	n	4	10	8	0,58
		%	11,80%	29,40%	23,50%	
	Medium	n	3	2	2	
		%	8,80%	5,90%	5,90%	
	High	n	1	2	0	
		%	2,90%	5,90%	0,00%	
	Very Hugh	n	1	0	1	
		%	2,90%	0,00%	2,90%	
Professional Communication	Low	n	4	10	6	0,8
		%	11,80%	29,40%	17,60%	
	Medium	n	1	2	2	
		%	2,90%	5,90%	5,90%	
	High	n	2	1	1	
		%	5,90%	2,90%	2,90%	
	Very Hugh	n	2	1	2	
		%	5,90%	2,90%	5,90%	
Time management	Low	n	7	10	9	0,72
		%	20,60%	29,40%	26,50%	
	Medium	n	1	1	2	
		%	2,90%	2,90%	5,90%	
	High	n	1	2	0	
		%	2,90%	5,90%	0,00%	
	Very High	n	0	1	0	
		%	0,00%	2,90%	0,00%	
Environment	Low	n	5	13	10	0,11
		%	14,70%	38,20%	29,40%	
	Medium	n	3,00	0,00	1,00	
		%	8,80%	0,00%	2,90%	
	High	n	0	0	0	
		%	0,00%	0,00%	0,00%	
	Very High	n	1,00	1,00	0,00	
		%	2,90%	2,90%	0,00%	
Professional qualification	Low	n	4	11	7	0,02*
		%	11,80%	32,40%	20,60%	
	Medium	n	0	0	1	
		%	0,00%	0,00%	2,90%	
	High	n	4	0	0	
		%	11,80%	0,00%	0,00%	
	Very High	n	1	3	3	
		%	2,90%	8,80%	8,80%	
Theoretical Activity	Low	n	5	8	7	0,28
		%	14,70%	23,50%	20,60%	
	Medium	n	3	0	2	
		%	8,80%	0,00%	5,90%	
	High	n	1	5	2	
		%	2,90%	14,70%	5,90%	
	Very High	n	0	1	0	
		%	0,00%	2,90%	0,00%	
General Stress	Low	n	7	5	4	0,11

		%	21,20%	15,20%	12,10%	
	High	n	2	8	7	
		%	6,10%	24,20%	21,20%	

* Statistically significant value.

It can be seen above that the level of stress related to professional training was significantly related to the level of resilience, so that students with a moderate level of resilience have a lower level of stress than the others. (p=0,02).

Discussion

The study carried out with 34 students in the health area (nursing, physiotherapy and pharmacy), where there is a predominance of female students (79.4%), despite the increasing number of male professionals in the health area[7]. There is a predominance of single individuals (52.9%), when it comes to the marital status of students, 52.9% do not have children. A study carried out in 2019 with 138 students in the health area (nursing and physiotherapy) at a college in the state of Goiás portrayed the predominance of female students (75.4%), single (73.2%) and without children(68.1%). Not having a partner and children are factors that facilitate entry into academic life, as in this situation the individual is more available to study and carry out academic commitments[7].

Regarding monthly income, 58.8% say they do not have enough monthly income for maintenance. In a survey carried out in 2019 at a private higher education institution in the surroundings of Brasília - DF, it was found that 58.7% of the students had a monthly income between 1 and 2 minimum wages and 52.2% had expenses between 1 and 2 minimum wages, 64 .5% consider that the monthly income is not enough. Upon entering the university, students expect financial independence, especially those whose family cannot afford to pay. In this case, some costs of the university's daily life can make training even more difficult, such as transport to the university, where the individual lives, food, reprographic copies, literature, etc., leading to frustration when they are unable to sustain the necessary costs[7].

In relation to habits/lifestyle, it is noted that 70.6% of the students do not practice sports, in a survey carried out at the State University of Paraíba with 254 students from seven different courses in the health area (psychology, physiotherapy, dentistry, pharmacy, nursing, physical education and biology) it was observed that 55.7% of the students have difficulty in the practice of physical activities.13 The absence of this practice results in changes in the students' quality of life, highlighting the importance of health promotion in this area. scope[13]. On the other hand, 61.8% practice leisure activities, which is considered important for emotional balance, mood and well-being.[7].

Of the students interviewed, 47.1% reported drinking alcohol frequently and 5.9% smoked. In a research carried out in a university center in Cuiabá with students from 11 courses in the health area, it is pointed out that entering college did not influence the pattern of alcohol use, generally consumption occurs at times of socializing, festive events and for a feeling of relaxation and pleasure.[14] However, the use of alcohol can also be linked to coping with stress and concern, since the use of alcohol tends to minimize the feeling of stress and bring a feeling of well-being, but its use can bring problems related to potentiation of symptoms

of stress, depression and anxiety and dependence.[15] On the other hand, a study carried out with 111 students from a Health School in Porto Alegre indicates that 58.7% of students use tobacco without taking into account the possibility of dependency. This may be associated with the intention to reduce symptoms of depression, stress and anxiety caused by academic life and living with individuals who use tobacco.[15] In this case, it can be thought that the use of licit drugs is directly linked to stress. caused by the routine of undergraduates. It is also observed that the higher the levels of stress and its symptoms, the greater the use of these substances, which, in general, aims to reduce the effects of stress, bringing a feeling of relaxation and relief. However, with the prolonged use of substances, the tendency is that they no longer bring the effect that causes the feeling of well-being, but dependence, which poses risks to the mental health of individuals who use them.[15]

When it comes to the quality of sleep, 79.4% of students say they use medication to inhibit sleep. In a survey carried out with 34 students in the health area of a private college in the state of Goiás, it is pointed out that 79.4% of the students have poor sleep quality. There are authors who highlight the relevance of changes in sleep quality and pattern due to varied study schedules and the overload to adapt to university life along with personal life. This can result in difficulty concentrating, directly affecting students' academic development and quality of life. However, it is noted that the overload and commitment to tasks can compromise the quality of the sleep pattern, causing daytime sleepiness and increasing the stress level.[4]

In the comparisons between levels of stress in this study, the high level of general stress and low level of stress in carrying out practical activities (64.7%), professional communication (58.8%), time management (76.5%) predominated.), environment (82.4%), professional training (64.7%) and theoretical activity (58.8%). In a survey carried out with 34 students from a private institution located in the state of Goiás, it was observed that 52.9% suffer from a high level of general stress, while 47.1% say they suffer from low levels of general stress. The high level of stress stands out when referring to theoretical activities (23.5%) and professional training (20.6%), while 20% of students have a medium level of stress regarding practical activities. Students in the health area are faced with a high load of activities in disciplines and supervised internships, which leads to excess activities and may be associated with the development of a high level of stress.[4]

On the other hand, the moderate level stands out when it comes to resilience among students in the health areas (41.2%), where they have a lower level of stress compared to the others. Resilience is seen as an important factor for health, as it can help control stress symptoms and increase sleep quality. Interpersonal relationships, the overload of studies and changes in habits when entering university can bring risks to mental health (depression, anxiety, hostility and psychoses). However, researchers claim that resilience can minimize the negative effects of potential stressors of the academic environment on students' mental health, becoming an important element in improving academic performance and health conditions.[16]

Conclusion

There was a predominance of students with a high level of general stress (52.9%). According to the AEEE domains, it was observed that most students have a low level of stress in carrying out Practical Activities (64.7%), in professional communication (58.8%), in time management (76, 5%), related to the environment (82.4%), in professional training (64.7%) and in theoretical activities (58.8%). Furthermore, the level of resilience among students was moderate (41.2%).

It was observed that there is a significant relationship between the level of stress related to professional training and the level of resilience, so that academics who have a moderate level of resilience have a lower level of stress when compared to the others.

In this sense, the relationship between resilience and academic stress is confirmed, and resilience acts positively on stress, being a protective factor for health since it can strengthen the student's ability to adapt to the adversities of life and the academic context.

Aknowledgment

This research was not granted to be done.

References

1. Bresolin JZ, Dalmolin GL, Vasconcellos SGL, Andolhe R, Morais BX, Lanes TC. Estresse e depressão em estudantes universitários da saúde. Rev. Rene Fortaleza 2022, v 23. Doi: http://dx.doi.org/10.15253/2175-6783.20222371879 .

2. Costa ALS, Silva RM, Sena ARAS, Silva GV, MUSSI FG, Gonçalves AKP, et al. Estresse, má qualidade do sono e desfechos negativos a saúde em estudantes de enfermagem. J Health NPEPS. 2021; 6(2):164-184.

3. Lazarus RS, Folkman S. Stress, appraisal, and coping. New York: Springer; 1984.

4. Gonçalves GKG, Santos KA, Ferreira MVR, Silva RM. Cons Estresse, qualidade do sono e qualidade de vida em acadêmicos da área de saúde. REVISA. 2022; 11(2): 232-43. Doi: https://doi.org/10.36239/revisa.v11.n2.p232a243.

5. Costa DAV, Koglen M, Hartwig SV, Ferreira GE, Guimarães MKOR, Ribeiro MRR. Atenção plena disposicional, regulação emocional e estresse percebido em estudantes de enfermagem. Revista da Escola de Enfermagem da USP, 2022. v 56. Doi: http://dx.doi.org/10.1590/1980-220x-reeusp-2022-0086en .

6. Moraes Filho IM, Gomes JCBM, Rodrigues MSC, Melchior LMR, Santos OP, Silva RM, et al. Resiliência em estudantes de nível técnico de enfermagem e radiologia. J Health NPEPS, 2020. (1):351-368. doi: https://doi.org/10.30681/25261010 .

7. Moraes Filho IM, Nascimento FA, Bastos GP, Barros Júnior FES, Silva RM, Santos ALM, Abreu CRC, Valóta IAC. Fatores sociodemográficos e acadêmicos relacionados à resiliência dos graduandos da área da saúde. REVISA.2020;9(2): 291-303. Doi: https://doi.org/10.36239/revisa.v9.n2.p291a303

8. Ruas CAS, Nascimento FPB, Magalhães IAL, Soares RJO. Resiliência dos estudantes de enfermagem de uma universidade na Baixada Fluminense/RJ. Braz. J. Hea. Rev., Curitiba, v. 2, n. 4, p. 2409-2417, jul./aug. 2019

9. Costa ALS, Polak C. Construção e validação de instrumento para avaliação de estresse em estudantes de enfermagem (AEEE). Rev. Esc. Enferm. USP. 2009; 43(N.esp.):1017-26.

10. Wagnild GM, Young HM. Development and psychometric evaluation of resilience scale. J Nurs Meas. 1993; 1:165-78.

11. Pesce RP, Assis SG, Avanci JQ, Santos NC, Malaquias JV, Carvalhaes R. Adaptação transcultural, confiabilidade e validade da escala de resiliência. Cad Saúde Pública. 2005; 21(2):436-48.

12. Godoy KAB, Joly MCRA, Piovezan NM, Dias AS, Silva DV. Avaliação da resiliência em escolares do ensino médio. Mudanças. 2010; 18 (1-2) 79-90.13. Moreira JS, Leal LFM, Medeiros LMB, Morais MCP. Graduandos de sete cursos de saúde: entre transtornos mentais comuns e rendimento acadêmico. Rev. Espaço para a Saúde. 2020 dez; 21(2):42-55. Doi http://dx.doi.org/10.22421/15177130-2020v21n2p42

14. Silva NG, Arruda GO, Tarefa SS, Pereira EHAI, Prado FMO, Lara HCAA. Modelos preditivos para o uso problemático de álcool entre universitários da saúde. Rev. Eletrônica Saúde Mental Álcool Drog. (Ed Port.), v 17 no 4. Out/dez 2021.

15. Beneton ER, Schmitt M, Andretta I. Sintomas de depressão, ansiedade e estresse e uso de drogas em universitários da área da saúde. 2021 jun. Rev. SPAGESP v 22 no 1.

16. Silva RM, Costa ALS, Mussi FC, Lopes VC, Batista KM, Santos OP. Health alterations in nursing students after a year from admission to the undergraduate course. Rev Esc Enferm USP. 2019;53:e03450. DOI: http://dx.doi.org/10.1590/S1980-220X2018008103450

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Health education for the visually impaired – academic experience supported by nursing classifications

Educação em saúde à pessoa com deficiência visual – experiência de acadêmicos apoiada nas classificações de enfermagem

Educación en salud para deficientes visuales – experiencia académica sustentada en clasificaciones de enfermeira

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RESUMO

Objetivo: apresentar relato de experiência do uso da intervenção de enfermagem na Educação em Saúde à pessoa com deficiência visual que apresenta autogestão ineficaz da saúde. **Método**: estudo descritivo-reflexivo, a partir do relato de experiência desenvolvido em ambulatório especializado no atendimento a doenças crônicas de uma cidade na região central do Brasil. Os dados foram obtidos por meio da Consulta de Enfermagem, conduzida pelos alunos de enfermagem e submetidas à análise pelo método de raciocínio clínico diagnóstico Outcome-Present State Test, integrando Diagnóstico, Resultado e Intervenções de Enfermagem baseados no Processo de Enfermagem e no uso das Taxonomias (NANDA, NIC, NOC) a um homem, de 56 anos, com deficiência visual por etiologia traumática, portador de Hipertensão Arterial (HA) e com níveis de glicose no sangue aumentados. **Resultados**: o relato dividiu-se em três vertentes para melhor compreensão: o cenário, a experiência, o detalhamento do caso e a intervenção. **Conclusão:** foi possível compreender os aspectos legais acerca dos direitos da pessoa com deficiência visual, no que tange a disponibilização de materiais em formatos adequados para o entendimento integral do conteúdo, e fomentar o raciocínio clínico de estudantes de enfermagem para intervenções custo-efetivas, através de tecnologias leves, que podem ser aplicadas em contextos similares.
Descritores: Pessoas com Deficiência; Letramento em Saúde; Cegueira; Diagnósticos de Enfermagem.

ABSTRACT

Objective: to present an experience report on the use of nursing intervention in Health Education for visually impaired people who present ineffective health self-management. **Method:** a descriptive-reflective study, based on the experience report developed in an outpatient clinic specialized in the care of chronic diseases in a city in the central region of Brazil. Data were obtained through the Nursing Consultation, conducted by nursing students and submitted to analysis using the Outcome-Present State Test diagnostic clinical reasoning method, integrating Nursing Diagnosis, Outcome and Interventions based on the Nursing Process and the use of Taxonomies (NANDA, NIC, NOC) to a 56-year-old man with visual impairment due to traumatic etiology, with Arterial Hypertension (AH) and increased blood glucose levels. **Results:** the report was divided into three aspects for better understanding: the scenario, the experience, the details of the case and the intervention. **Conclusion:** it was possible to understand the legal aspects about the rights of the visually impaired person, regarding the availability of materials in suitable formats for the full understanding of the content, and to foster the clinical reasoning of nursing students for cost-effective interventions, through of lightweight technologies, which can be applied in similar contexts.
Descriptors: Disabled Persons; Health Literacy; Blindness; Nursing Diagnosis.

RESUMEN

Objetivo: presentar un relato de experiencia sobre el uso de la intervención de enfermería en Educación en Salud para personas con discapacidad visual que presentan autogestión de salud ineficaz. **Método:** estudio descriptivo-reflexivo, basado en el relato de experiencia desarrollado en un ambulatorio especializado en la atención de enfermedades crónicas en una ciudad de la región central de Brasil. Los datos fueron obtenidos a través de la Consulta de Enfermería, realizada por estudiantes de enfermería y sometidos a análisis utilizando el método de razonamiento clínico diagnóstico Outcome-Present State Test, integrando Diagnósticos, Resultados e Intervenciones de Enfermería con base en el Proceso de Enfermería y el uso de Taxonomías (NANDA, NIC, NOC) a un varón de 56 años con discapacidad visual de etiología traumática, con Hipertensión Arterial (HA) y niveles elevados de glucosa en sangre. **Resultados:** el informe se dividió en tres aspectos para una mejor comprensión: el escenario, la experiencia, los detalles del caso y la intervención. **Conclusión:** fue posible comprender los aspectos legales sobre los derechos de la persona con discapacidad visual, en cuanto a la disponibilidad de materiales en formatos adecuados para la comprensión integral del contenido, y fomentar el razonamiento clínico de los estudiantes de enfermería para intervenciones costo-efectivas, a través de tecnologías ligeras, que se pueden aplicar en contextos similares.
Descriptores: Personas con Discapacidad; Alfabetización en Salud; Ceguera; Diagnóstico de Enfermería.
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ORIGINAL

Introduction

The Brazilian Association of Technical Standards (ABNT)[1] defines accessibility, through the Brazilian Standard (NBR) 9050, as the possibility and condition of reach, perception and understanding for the safe and autonomy use of buildings, spaces, furniture, urban equipment and elements. In addition, this standard defines the term accessible as space, building, furniture, urban equipment or element that can be reached, triggered, used and experienced by any person, including those with reduced mobility. Therefore, the term accessible implies both physical and communication accessibility. From these definitions, four main elements can be abstracted related to the conditions of: 1) buildings; 2) transportation; 3) equipment and furniture; and 4) communications systems.[2]

Thus, in this spectrum, communication presents itself as a process of social interaction through symbols and messaging systems, an activity inherent to human nature that implies the interaction and the common position of messages with meanings to influence, in some way, the behavior of others and the organization and development of social systems. Therefore, communication is considered as a human process of language interaction, it is a sociocultural fact.[3] Nevertheless, effective communication is a relevant factor in supporting people living with some type of disability.

Moreover, according to data from the Brazilian Institute of Geography and Statistics (IBGE), there are about 45.6 million Brazilians with some type of disability, representing almost 1/4 of the population of Brazil. Among these, 23.9% had visual impairment, representing the highest prevalence in the population, with approximately 35.7 million people.[4]

By the way, the Brazilian Federal Constitution explains, in article 196, that health is the right of all and the duty of the State, guaranteed through social and economic policies aimed at reducing the risk of disease and other injuries and universal and equal access to actions and services for its promotion, protection and recovery.[5]

Therefore, the impassability, accentuated in the blind, causes difficulties related to the exposure of their needs due to the lack of accessibility, mobility and communication. In general, most of them live in homes and cities with no conditions to welcome them. These people suffer the consequences of the indifference of government entities and society. Such entities do not strive to support them or to eliminate the physical barriers and attitudes that prevent their integration.[6]

Moreover, it is essential that health professionals recognize plurality and contribute to the advancement of equality, as well as equity in access to information and develop health education activities that address all people. In this context, visual person deficiency, for example, cannot be an obstacle to welcoming and comprehensive access to health[7], and it is up to workers to develop skills and methods to perform care according to the guidelines of the Unified Health System (SUS): universality, integrality and equity, seeking to understand the assisted person holistically and paying attention to their individual needs and not just worrying about providing a service.[8]

To this do so, learning and teaching processes must be adequate and dynamic, often requiring innovative methods. Educational technologies are

useful and important tools to be used in teaching that surround the work of professionals from various areas, such as nurses.

Thus, the construction of educational technologies, for dynamic and active learning, is of fundamental importance to respond to the current demands of nursing. Therefore, nurses can create and apply technologies in their professional practice, because these are a form of effective communication, which bring engagement and support.[9]

Nevertheless, in the area of health care, it is essential to assume that patients are lay on the subject, so communication should be done in a simple, precise and objective way, considering the living conditions, schooling and their literacy in health. The United States Department of Health and Human Services defines health literacy as the degree of ability each individual has to find, understand, and use information and services for decision-making and development of actions for their own health and other health..[10-11]

In this perspective, when health literacy is insufficient, hospitalization rates and adverse effects of therapies and medications increase, as well as the prevalence of chronic diseases and lower treatment adhering to the indicated treatment. Dissarte, health promotion and disease prevention are directly related to health literacy, that is, the ability to acquire and make use of information in favor of oneself and their well-being.[12]

Thus, the aim of this article was to present an experience report of the use of the nursing intervention Health Education to people with visual impairment who present ineffective self-management of health.

Method

Descriptive-reflective study, based on the experience report, developed in an outpatient clinic specialized in the care of chronic diseases in a city in central Brazil. The motivation was based on the insertion of the theme "Literacy in Health" in the theoretical and practical meetings of the discipline of Supervised Internship I of undergraduate nursing students, during the months of April to June 2022, with the objective of reflecting and consolidating the experiences of the student's formative period.

The study subject is a 56-year-old man with visual impairment due to traumatic etiology, with hypertension (AH) and with increased blood glucose levels, with clinical evidence of nursing ineffective self-management of health due primarily to Inadequate Health Literacy. The data were obtained from the Nursing Consultation conducted by nursing students and submitted to analysis by the OPT (Outcome-Present State-Test) clinical reasoning method[13], integrating Nursing Diagnosis, Outcome and Interventions, based on the Nursing Process (PE)[14] and on the use of Taxonomies: Classification of Nursing Diagnoses of NANDA International (NANDA-I)[15], Classification of Nursing Interventions (NIC)[16] and Classification of Nursing Outcomes (NOC).[17]

This experience report commended all the determinations contained in resolutions No. 466/2012 and N°510/2016 of the National Health Council, having been approved by the Research Ethics Committee (CEP), under the number of the Certificate of Presentation for Ethical Appreciation (CAAE): 07551112.7.2.7.0000.5554 and opinion no. 153.158.[18-19]

Results and Discussion

The report was organized descriptively and at consecutive times to better understand the scenario, these being: the scenario, the experience, the detailing of the case, theoretical basis and intervention.

The scenario

The Basic Health Unit (UBS) that was the scene of care develops follow-up to patients living with chronic noncommunicable diseases (NCDs), and multiprofessional care is developed by nurses, physicians and nursing technicians, who understand health education as one of the priority goals for comprehensive care. However, when it comes to the care of patients with disabilities, such as visual, there is an increase in complexity and customization for the implementation of orientation and teaching measures in health.

Thus, in view of the arrival of users with such demands, there was an increase in the difficulties on the part of health professionals in developing the necessary interventions. Nevertheless, brister of 22.3% of the population of the administrative region manifests some difficulty or great difficulty to see.[20]

People assisted by the UBS, located in a peripheral administrative region of a large city in central Brazil, have precarious employment and income conditions, declare themselves as black or brown, generally have low schooling and are mostly women, according to data from the District Household Sample Survey.[20] Such sociodemographic conditions may reinforce limitations in the self-management of chronic conditions, making area residents as potential populations at risk.[15]

At the same time, non-treatment regimen may also be observed as a consequence of ineffective self-management of health. According to the World Health Organization (WHO)[21], non-treatment in the long term is around 50% for the general population. The factors related to non-adtake are linked to the individual characteristics of the patient (forgetfulness, beliefs, knowledge and inadequate skills in the management of symptoms and treatment of the disease), the disease itself (whether asymptomatic or not), the medications used (polypharmacy, occurrence of adverse events), patient-health service interaction, among others.[22]

Regarding the latter factor, the difficulties of reception, accessibility and communication experienced in health services between visually impaired people and professionals, can potentially become an atheudinal disorder, the way in which the patient is seen and treated, resulting in lack of interest and safety in relation to care and, consequently, isolation or distancing from social interactions.[23]

The experience

Nurses play a prominent role in the care of people with chronic conditions at different levels of health care, and to this end, they apply a specific work method of the profession that supports the theoretical foundations and scientific knowledge of nursing practice (PE). In this sense, for ethical-legal support of the practice, resolution no. 358 of the Federal Nursing Council (COFEN) provides for

the Systematization of Nursing Care (SAE) and the implementation of the EP, which dictates that the EP should be carried out, in a deliberate and systematic manner, in all public or private environments, in which professional nursing care occurs.[24]

The EP enables decision-making based on clinical data oriented from theoretical references of nursing, structuring the method of thinking and making of the profession, besides allowing the implementation of cost-effective nursing interventions, the evaluation of results sensitive to nursing interventions and the occurrence of positive outcomes from the resolution of undesirable human responses.[24] In this sense, the EP is structured in five sequential, interrelated and recurrent stages:

1. Nursing History: with the purpose of obtaining information about the person, family or human community and about their responses at a given moment of the health and disease process;
2. Nursing Diagnosis: defined as the process of interpretation and grouping of data collected in the first stage, which culminates in the decision-making on the nursing diagnostic concepts that constitutes the basis for the selection of actions or interventions with which the expected results are aimed; Planejamento de Enfermagem: momento em que ocorre a determinação dos resultados que se esperam alcançar e das ações ou intervenções de enfermagem que serão realizadas;
3. Implementation: when the actions or interventions determined in the previous stage occur;
4. Nursing Evaluation: when changes in responses are verified to determine whether nursing actions or interventions have achieved the expected result, and verification of the need for changes or adaptations.[24]

Therefore, for effective resolution of the clinical case in question, the support of the nursing classifications was used: NANDA Internacional (NANDA-I)[15], NIC[16] and NOC.[17]

Case detailing

The patient D.S.A, 56 years old, male, attended the UBS after suffering fainting in his residence. During data collection, the patient reported fatigue, sweating and tremors, in addition to severe headache, dizziness, angina and algia in the posterior cervical region. Reports having systemic arterial hypertension (AH) and having increased glucose rate (pre-diabetic). It makes continuous use of losartan potassium with hydrochlorothiazide 50 mg (1compressed in the morning) and metformin 500 mg (1 tablet in the evening). It refers to inadequate diet, with high content of carbohydrates, sodium and lipids, adequate liquid intake. Refers to appropriate eliminations. Questioned, the patient declared that he took the drug at the right time, in the morning and evening, but that the packaging was out of the box, so he could not read the Braille with the name, because the cleaning lady messed with his medications (SIC).

Physical examination was found that the patient was conscious and oriented in time and space, with a slight picture of confusion in relation to the therapeutic regimen, communicative, and with impaired ambulation, requiring help by cane. Hydrated and blushing mucous membranes. Skull and face with

no abnormalities. Eupneic. He presented flat thorax, symmetrical and preserved thoracic expansion, skin with pale appearance, cold and sticky to the touch, with sweating. Clear pulmonary sound, no adventitious noises. Respiratory Rate: 22 inspiratory movements per minute. Cardiac auscultation presented normophonetic rhythmic sounds and heart rate of 105 beats per minute. Upper and lower limbs without evidence of injury. Height: 172 cm; weight: 86 kg; and Body Mass Index of 29.1 kg/m2 – evidence of overweight. Blood pressure 155x110 mmHg. Capillary glycemia of 65 mg/dl. Axillary temperature of 36.9°C.

The hypothesis indicated at the time of the nursing consultation, based on the patient's report and the data obtained, is that there was a double ingestion of metformin, without the ingestion of losartan, causing a general feeling of malaise, with great tiredness and difficulty breathing and elevation of blood pressure. Chart 1 shows the indication of the use of the aforementioned drugs and the risk of overdose to the user regarding the therapeutic regimen.

Table 1 - Indication of use and risks related to overdose (Brazil, 2022)

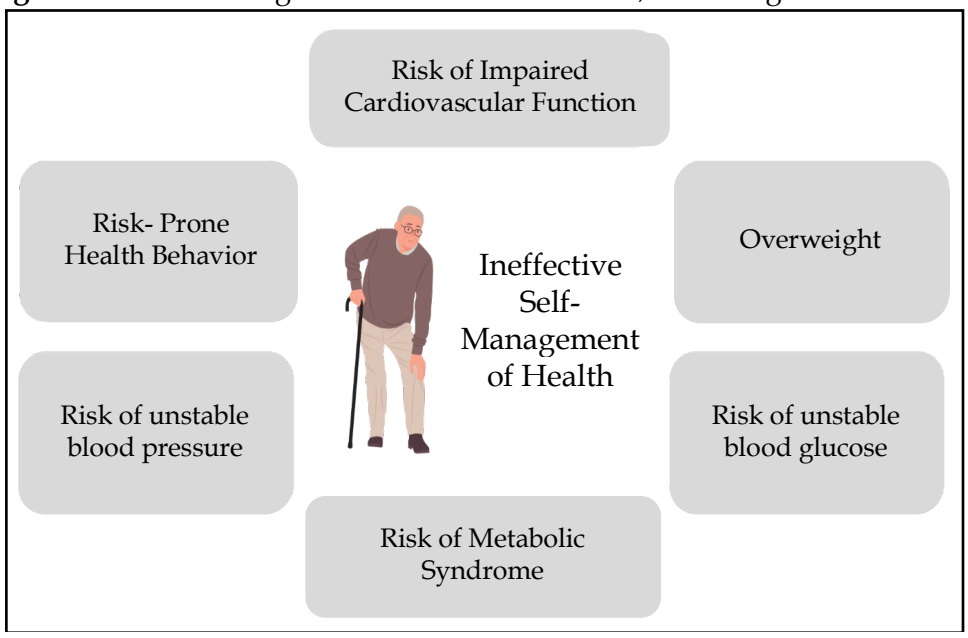
Name of the medicine:	**Losartan Potassium + Hydrochlorothiazide**
Indication of use:	In patients with high blood pressure and thickening of the left ventricle walls (left ventricle hypertrophy), losartan, often in combination with hydrochlorothiazide, reduces the risk of stroke and heart attack (myocardial infarction) and helps patients live longer. The recommended starting dose is 500 mg once a day for breakfast. This dose can be gradually increased, at medical discretion, aiming at maintaining plasma glucose levels and/or HbA1C within the normal range. Regular control of blood glucose and risk factors is recommended to assess whether treatment remains necessary.
Overdose:	The overdose of Losartana Potassium + Hydrochlorothiazide can lead to hypotension, whose symptoms are: low energy level, decreased strength, weakness, dizziness, fainting, cold sweat, excessive thirst, chicardia, blurred vision, cold skin, panting and mental confusion. Aquicardia: shortness of breath, dizziness, sudden weakness, chest vibration, stunning and fainting.
Name of the medicine:	**Metformin Hydrochloride**
Indication of use:	As an antidiabetic agent, associated with the diet, for the treatment of: Type 2 diabetes mellitus, not dependent on insulin (diabetes of maturity, diabetes of the obese, diabetes in adults of normal weight), alone or complementing the action of other antidiabetics (such as sulphonylureas); Type 1 diabetes mellitus, dependent on insulin, as a complement to insulin therapy in cases of unstable or insulin-resistant diabetes; Prevention of type 2 diabetes mellitus in overweight patients (BMI ≥ 24 kg/m2; 22 kg/m2 among Asians) with prediabetes (IGT and/or IFG and/or HbA1c increased) and at least one additional risk factor (such as hypertension, age over 40 years, dyslipidemia, family history of diabetes or history of gestational diabetes) for development of diabetes mellitus type 2 evident and in which intensive lifestyle modification (diet and regular physical exercises) alone did not provide adequate glycemic control.

Overdose:	Overdose of metformin hydrochloride can lead to lactic acidosis and consequently coma. Symptoms are: vomiting, abdominal pain, muscle cramps, general feeling of malaise, with great tiredness and difficulty breathing. Metformin hydrochloride alone does not cause hypoglycaemia, however, if you take metformin hydrochloride together with other medicines for the treatment of diabetes that may cause hypoglycaemia (such as sulphonylureas, insulin, meglitinides), there is a risk of developing hypoglycaemia. Symptoms: weakness, dizziness, sweating, aquicardia, vision disorders or concentration difficulties.

Source: (EMS S/A; 2013[25]; EMS S/A; 2013[26]).

After careful reading of the medicine leaflets, it was found that the general feeling of malaise with great tiredness and difficulty breathing and elevated blood pressure was caused due to the overdose of the drug Metformin Hydrochloride and the non-ingestion of Losartana Potassium + Hydrochlorothiazide. Soon an individualized care plan was operationalized. Considering the information collected during anamnesis and physical examination, different nursing diagnoses of NANDA-I[15] could be listed to the case, as shown in Figure 1, following the clinical-diagnostic reasoning proposed by the OPT model.[13]

Figure 1 - Possible diagnoses identified in the case, according to the OPT model.



Therefore, considering the nursing diagnosis Ineffective Self-Management of Health[15] as the priority, since, when solving it, all other diagnoses are solved in sequence, the care plan was established together with the NIC[16] and NOC nursing classifications[17]. Thus, the main objective was to solve the related factor that predisposes to a greater degree the occurrence of this diagnosis, which is inadequate Health Literacy. The details of the plan are present in Chart 2.

Table 2- NANDA Diagnosis, NOC and NIC.

Nursing Diagnosis – NANDA						
INEFFECTIVE SELF-MANAGEMENT OF HEALTH Definition: "Unsatisfactory management of symptoms, treatment regimen, physical, psychosocial and spiritual consequences and lifestyle changes inherent in living with a chronic condition."[15]						
Expected Results – NOC						
Health Literacy Behavior						
Indicators	**1**	**2**	**3**	**4**	**5**	**Goal**
Identifies personal health needs		X				4 in 30 days
Verbaliza understand verbal information relevant to health			X			5 in 14 days
Verbaliza understand information about medicines			X			5 in 14 days
Verbaliza understand information about treatment			X			5 in 14 days
Recognizes patient responsibilities		X				5 in 7 days
Share questions		X				4 in 7 days
Shares concerns		X				4 in 7 days
Uses personal support system					X	Maintain
Nursing Intervention – NIC						
HEALTH EDUCATION Activities: - Identify internal or external factors that can improve or reduce motivation for healthy behavior. - Determine current knowledge about healthy health and behavior of the individual, family or target groups. - Identify characteristics of the target population that affect the selection of educational strategies. - Identify resources (e.g. personnel, space, equipment, financial, etc.) needed to conduct the program. - Emphasize immediate or short-term positive health benefits to be received by positive life behavior rather than long-term benefits or negative effects of non-acceptance. - Develop educational material written at an appropriate level of reading to the target audience. - Involve people, families and groups in planning and implementation in the life plan or modification of health behavior. - Use varied strategies and intervention points in the educational program - Develop and implement strategies to measure patients' results at regular intervals during and after the program.						

Source: (NANDA Diagnosis[15], NIC[16] e NOC[17]).

Theoretical Framework

In Brazil, the Consumer Protection Code (CDC) (Law No. 8,078/90) requires clear and appropriate information in Portuguese about the different products and services, describing the characteristics, composition, quality, price and risks they present27. However, according to a previous study conducted, it was found that a considerable proportion of people with visual impairment only receive information orally or with family members and acquaintances.[28]

It was concluded that when the transcription for braille was performed, directly from a printed package leaflet, maintaining all the structuring of titles, lines and warnings, these end up showing to be a major obstacle for patients with visual impairment, since they may suffer confusion in the differentiation of information because it is a running text with few resources to distinguish the sessions of the package leaflet.[28]

In this sense, Decree No. 5,296 of December 2, 2004 states, in Article 58 § 1, that "From six months of the edition of this Decree, the drug industry must make available, upon request, copies of the package leaflets of medicines in magnetic, Braille or in an enlarged source".[29]

In addition, it is important to highlight that, according to the standards of the National Health Surveillance Agency (ANVISA), drug packaging should cite, using the Braille system: the name of the commercial drug or its generic name, citing each active ingredient present. It also provides for the package leaflet in a differentiated format, which would be provided to the visually impaired person, in an appropriate configuration, to meet their needs. Can be made available in audio or text with conversion-to-audio file, printed in Braille or with enlarged font.[30]

Daily, the visually impaired person encounters barriers, such as the impossibility of finding the drug, to differentiate the packages, in addition to monitoring the schedules for medication administration, influencing the forgetfulness of one or more doses, in addition to the difficulty in maintaining the correct dose, especially in the case of drugs in liquid presentation.[31]

However, drugs, whether for free sale or restricted, can be threats, as to the risk of intoxications, serious adverse reactions or if used in a wrong way. The dose of the drug, the interval between it and the duration of treatment should be carefully observed, so administering a medication wrongly or incorrectly, due to some type of barrier that may be imposed on people with disabilities, because they do not know exactly what they are buying or using, may pose an even higher risk.[32]

Therefore, these packages can be transformed into accessible didactic-pedagogical resources, favoring pedagogical, digital and communicational accessibility, which, in turn, increases the understanding of concepts by making tactile perception help the learning process in the absence of vision.[33]

Thus, visually impaired people are subject to a set of factors that add complexity to access to community resources, health services and even the condition itself, enhancing the use of health services. Thus, the National Health Policy for Persons with Disabilities determines strategies and methods to qualify people with visual impairment, suiting the physical space, development and training of health professionals to practice from primary care in the Family Health Strategy to the tertiary level of care.[34]

In addition, the National Primary Care Policy (PNAB) establishes that Primary Health Care (PHC) has as its definition to make up a set of individual, family and collective health actions, involving promotion, prevention, protection, diagnosis, treatment, rehabilitation, harm reduction, palliative care and Health Surveillance. The actions are developed using integrated care practices and qualified management, involving a multidisciplinary team and directed to a defined territory and its population, thus assuming sanitary responsibility.[35]

The main physical structures of PHC are the Basic Health Units/Health Centers, which should always be located contiguous to the community, occupying a central role in ensuring access to quality health. When properly engendered, these health facilities contribute to the development of safe care processes and influence their results, bringing improvement of the quality of service delivery.[35]

Moreover, the PNAB, in its creation ordinance of No. 2,436, of September 21, 2017, ensures that, according to current regulations, adequate infrastructure and in good condition for the operation of the UBS must be ensured, which must have space, furniture and equipment, as well as accessibility for people with disabilities. To this end, there are components that act as modifiers and qualifiers that must cover all spaces, and these must be adapted for people with disabilities, respecting current regulations.[35]

However, the lack of elaboration, training and encouragement by managers, in order to provide health professionals to receive and provide adequate care to this population, can cause failures regarding development and communication skills with people with visual impairment. Thus, the care of health services to these patients tends to develop in a fragmented and unresolutive way, thus opposing the principles and guidelines established by the SUS.[36]

In this sense, it is of fundamental importance to use the contribution of permanent health education to implement reflections regarding the daily praxis experienced in the contribution to users. In this way, it is of fundamental importance to develop health literacy (SL) as a tool to emphasize the use of this information, and should be operationalized for the making of beneficial, efficient and resolutive decisions, aiming to mitigate decisions considered appropriate, but that do not suit the patient.[12]

Furthermore, SL is considered a conditioning factor for self-care, as well as for the effectiveness of the applied therapy, since, when it occurs improperly, it becomes a public health problem, as it negatively impacts the clinical outcome of patients and individuals in general. Therefore, it is necessary to segment those who need greater institutional support, promoting equal care and avoiding inadequate use of resources and services, high hospitalization rates, increased prevalence of chronic diseases and lower treatment adhering.[12]

From this perspective, adequate SL can bring positive changes in all stages of treatment, as it improves prognosis, avoiding the use of more complex care. There are classifications about SL that represent the individual's abilities to understand health issues and exercise greater control over them, such as: Functional (ability to read health-related pamphlets or read the label of a drug); Interactive (read and interpret information from the internet about health and discuss with the health professional while negotiating a treatment); Critical

(effective self-control, asks for help when needed and makes informed decisions).[37]

These concepts show that the important thing is not only to know if the individual dominates reading and writing, but what he is able to do with these skills, specifically in the health field, especially in the management of NCDs (increasingly prevalent as a cause of morbidity and mortality in Brazil). It is observed, therefore, that even people with good instructional level may have difficulties in understanding guidance on health care. SL limitations hinder health promotion and education and should be the focus of the attention of professionals in the area and managers.[37]

Therefore, the main difficulties were listed, which refer to self-care, especially with regard to the identification of the medications that make up the daily treatment, so that nursing professionals can contribute to reduce injuries related to the misuse of medication and the increase in treatment adhering to the treatment proposed by the medical and nursing team, in the situation in question, the visually impaired patient.

Based on the information in the case, a proposal was developed to assist in the identification of the drugs in use by the patient, as well as for those who assist him/her on a daily basis, in addition to the pharmacy employee, where the medications are dispensed. A prototype was developed, considering the difficulties presented in relation to its treatment.

Intervention

Using the concepts described above, the prototype of storage of medicines was carried out, which had the image, in enlarged size, of the medicine box and with the tactile feature of the sun and moon, representing, respectively, morning and night, in addition to braille, indicating the name of the drug and the time at which it should be consumed.

After structuring the data, it was possible to proceed with the preparation of the prototype, using as a basis the Vinyl Acetate (EVA) of black color and a mold in the shape of a bag, which was stapled, closing the sides and the bottom, creating two pockets, one front and one posterior. The images of the moon and the sun were cut, respectively in blue EVA and yellow EVA, and glued to the top right of each pocket, as well as a tablet of each medication, since both have different formats, assisting in the recognition of drugs.

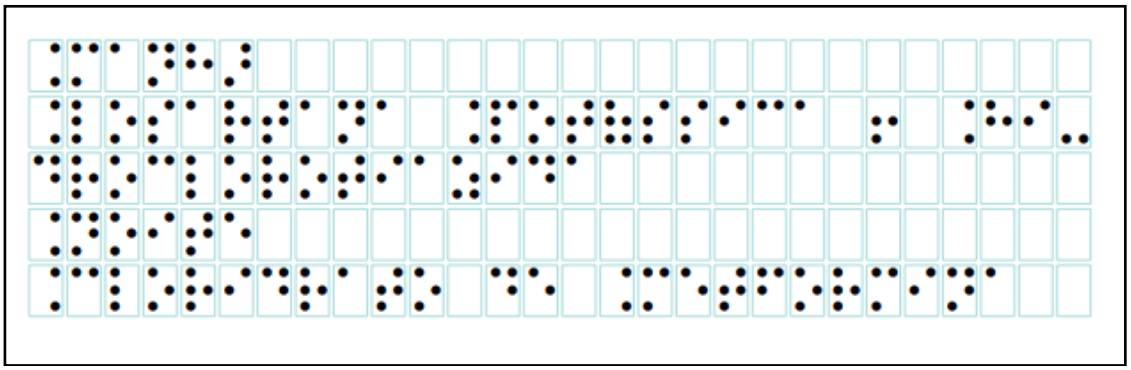
The images of the drug packaging were printed in enlarged size and glued, respecting the indication of morning/night use. The figure resulting from the translation into braille was filled by half spheres, allowing to add the necessary relief for braille reading. After the preparation, the drugs were cut out of their blisters and arranged in each pocket corresponding to the indication of the drug, according to Figure 2.

Figure 2 - Prototype made by students.

Readily, the Braille method is a writing system used for blind or low-vision people to read. The system emerged in the 19th century in France and was created by Louis Braille. Previously, the literacy method was used, which consisted of printing embossed letters, distinguishable by means of touch. Braille created a model that was based on the letters of the alphabet and numbers, allowing a total of 63 embossed combinations. This model arrived in Brazil in 1854 and is still used in the country, although it has undergone updates to adapt it to the Portuguese language.[38]

In this list, there are several sites, such as the domain used here: " https://www.atractor.pt/mat/matbr/matbraille.html"[39], which allow the "translation" to braille. In this case, we chose to print the material (figure 3) and half pearl necklace of Acrylonitrile Butadiene Styrene (ABS) of 3mm, transforming the printed paper into a tactile feature. The following image has in its translation the words: Morning - Losartan Potassica + Hydrochlorothiazide; Night - Metformin Hydrochloride.

Figure 3 - Translation into Braille of the name of the drugs and time of administration.



Source: Atractor, 2022

With these characteristics, using pictogram, written in Braille, image with visual identity and written in Portuguese, it was possible to reach all those involved in the present case, thus, it is expected that there will be no recurrence, consequently reducing the risk of misuse of medication. Therefore, it is essential to work intersectorally to obtain a positive prognosis. In view of this, the findings should be shared with the multidisciplinary team, in order to outline an integral, holistic, humanized and effective care to patients, their families and the support group.[40]

Conclusion

National legislation is slow ly moving so that people with disabilities, especially visuals, are included in completeness in society, establishing laws, norms and rules aimed at full integration, without limitations of access to goods and resources. In this context, nursing has a prominent role to reduce inequities and to advocate for special needs, providing comprehensive, ethical, humanized and resolutive care, based on specific theoretical foundations of the profession. Nurses work in the promotion and protection of human health and in the prevention of health problems, and the management of human responses is the path that solidifies nursing science.

From the nursing intervention applied to the case, it was possible to understand the legal aspects about the rights of people with visual impairment, regarding the availability of materials in appropriate formats for the full understanding of the content. Furthermore, it allowed the fostering of the clinical reasoning of nursing students for cost-effective interventions, through light technologies, which can be applied in similar contexts.

Health professionals have a fundamental participation in the inclusion and integration process, contributing to the maintenance of health, improvement of quality of life and independence of people with visual impairments. As future perspectives, we highlight the need for continuing education strategies to foster welcoming, technical knowledge for the development of strategies and humanization to extend care beyond the usual lines, promoting innovation in direct care.

The study was limited to the application to only one user, the low representativeness and possibility of generalization, little ability to evaluate the "causal weight" of the variables, high level of indetermination and a frequent lack of independence among the cases studied (idem), deserving the necessary care when seeking generalizations. However, it is of great use for future exploratory and comparative research.

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References

1. Associação Brasileira de Normas Técnicas (ABNT). NBR 9050:2020: Acessibilidade a edificações, mobiliário, espaços e equipamentos urbanos. Rio de Janeiro: 2020. Disponível em: < https://www.caurn.gov.br/wp-content/uploads/2020/08/ABNT-NBR-9050-15-Acessibilidade-emenda-1_-03-08-2020.pdf? >. Acesso em 29 out. 2022.

2. Manzini EJ. Inclusão e acessibilidade. Revista da Sobama. 2005; 10(1):31-36. Disponível em: < http://fio.edu.br/site2013/images/NAU/001d-%20manzini%202005%20acessibilidade.pdf >. Acesso em 29 out. 2022.

3. Comunicação [home page na Internet]. Conceito. Disponível em: < https://conceitos.com/comunicacao >. Acesso em 29 set. 2022

4. Instituto Brasileiro de Geografia e Estatística. IBGE. [Online]. Rio de Janeiro; 2010. Disponível em: < https://biblioteca.ibge.gov.br/visualizacao/periodicos/93/cd_2010_caracteristicas_populacao_domicilios.pdf >. Acesso em 05 ago. 2022.

5. Brasil. Constituição (1988). Constituição da República Federativa do Brasil. Brasília, DF: Senado; 1988.

6. Oliveira MG, Pagliuca LMF. Análise comparativa da acessibilidade para cegos: contextos culturais. Benjamin Constant. 2014; 57(1):92–103. Disponível em: < http://revista.ibc.gov.br/index.php/BC/article/view/348 >. Acesso em: 29 out. 2022.

7. Zanchetta MS *et al*. Incorporação do letramento em saúde comunitária ao Sistema Único de Saúde: possibilidades, controvérsias e desafios. J. nurs. health. 2020; 10(3):e20103010. Disponível em: < https://periodicos.ufpel.edu.br/ojs2/index.php/enfermagem/article/view/19285 >. Acesso em 05 ago. 2022.

8. Brasil. Lei nº 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. Diário Oficial da União. 19 set. 1990. Disponível em: < https://www2.camara.leg.br/legin/fed/lei/1990/lei-8080-19-setembro-1990-365093-publicacaooriginal-1-pl.html >. Acesso em 05 ago. 2022.

9. Pontes L, Reichembach MT, Bottega BM, Machado MC, Pereira JFG, Moreira FN. A Inspeção na Avaliação Clínica Diária do Enfermeiro: Produção de uma Tecnologia Educacional. Enferm. Foco. 2019; 10(7):57-62. Disponível em: < http://revista.cofen.gov.br/index.php/enfermagem/article/view/2437/728 >. Acesso em 06 ago. 2022.

10. Maragno CA, Mengue SS, Moraes CG, Rebelo MV, Guimarães AM, Pizzol TS. Teste de letramento em saúde em português para adultos. Rev. bras.

Epidemiol. 2019; 22:e190025. Disponível em: < https://www.scielo.br/j/rbepid/a/kzZkT67nn6S7rfSxW8nRSLp/?lang=pt >. Acesso em 06 ago. 2022.

11. CDC. Health Literacy: Accurate, Accessible and Actionable Health Information for All. Centers for Disease Control and Prevention. 2019. Disponível em: < https://www.cdc.gov/healthliteracy/index.html >. Acesso em 15 abr. 2022.

12. Ribas KH, Araújo AH. A importância do Letramento em Saúde na Atenção Primária: revisão integrativa da literatura. RSD. 2021; 10(16):e493101624063. Disponível em: < https://rsdjournal.org/index.php/rsd/article/view/24063 >. Acesso em 05 ago. 2022.

13. Pesut D, Herman J. Clinical reasoning: the art and Science of critical and creative thinking. New York: Delmar Publishers;1999.

14. Moraes Filho IM, Sousa TV, Carvalho Filha FSS, Arantes AA, Fonseca PP, Silva MVRS. Eletroconvulsoterapia, implicações éticas, legais e a sistematização da assistência de enfermagem. Glob Acad Nurs. 2022;3(3):e269.

15. Herdman TH, Kamitsuru S, Lopes CT. Diagnósticos de Enfermagem Da NANDA-I: Definições e Classificação 2021-2023. 12 Ed. Artmed; 2021.

16. BulechekGM, Butcher HK, Docheterman JM, Wagner CW. Classificação Das Intervenções De Enfermagem (NIC). 6. Ed. Rio de Janeiro: Mosby Elsevier;2016, p. 640.

17. Moorhead S, Johnson M, Maas M, Swanson E. Classificação dos resultados de enfermagem (NOC). 4. Ed. Rio de Janeiro: Mosby Elsevier; 2010, 936 p.39.

18. Conselho Nacional de Saúde (Brasil). Resolução n° 466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos e revoga as Resoluções CNS nos. 196/96, 303/2000 e 404/2008. Diário Oficial da União. 12 dez. 2012. Disponível em: < https://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf >. Acesso em 08 ago. 2022.

19. Conselho Nacional de Saúde (Brasil). Resolução n° 510, de 07 de abril de 2016. Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais. Diário Oficial da União. 07 abr. 2016. Disponível em: < http://conselho.saude.gov.br/resolucoes/2016/Reso510.pdf >. Acesso em 08 ago. 2022.

20. Distrito Federal. Secretaria de Estado de Fazenda, Planejamento, Orçamento e Gestão do Distrito Federal, Companhia de Planejamento do Distrito Federal. Pesquisa Distrital por Amostra de Domicílios 2018. Brasília (DF): Companhia de Planejamento do Distrito Federal; 2019. Disponível em: <

https://www.codeplan.df.gov.br/wp-content/uploads/2019/03/PDAD_DF-Grupo-de-Renda-compactado.pdf >. Acesso em 20 ago. 2022.

21. World Health Organization. Adherence to long-term therapies: evidence for action. Geneva: World Health Organization; 2003.

22. Tavares NUL *et al*. Factors Associated with low adherence to drug treatment for chronic diseases in Brazil. Rev Saude Publica. 2016;50(suppl 2):10s.

23. Oyama SM, Terceiro FA, Parazzi LC. Comunicação do enfermeiro docente na assistência a pessoas cegas e surdas. CuidArte. Enfermagem. 2017; 11(1):78-85. Disponível em: < https://pesquisa.bvsalud.org/portal/resource/pt/bde-31628 >. Acesso em 15 ago. 2022.

24. Conselho Federal de Enfermagem (Brasil). Resolução COFEN n° 358/2009. Dispõe sobre a Sistematização da Assistência de Enfermagem e a Implementação do Processo de Enfermagem em ambientes, públicos ou privados, em que ocorre o cuidado profissional de Enfermagem, e dá outras providências. Diário Oficial da União. 15 out. 2009. Disponível em: < http://www.cofen.gov.br/resoluo-cofen-3582009_4384.html >. Acesso em 15 ago. 2022.

25. BULA Losartana Potássica + Hidroclorotiazida EMS S/A 2013.

26. BULA Cloridrato de Metformina EMS S/A 2013.

27. Brasil. Lei nº 8.078, de 11 de setembro de 1990. Dispõe sobre a proteção do consumidor e dá outras providências. Diário Oficial da União. 11 set. 1990. Disponível em: < http://www.planalto.gov.br/ccivil_03/leis/l8078compilado.htm >. Acesso em 03 ago. 2022.

28. Lopes MO, Spinillo CG. Estudo experimental de leitura de uma bula de medicamentos, transcrita para o Sistema Braille, por usuários portadores de cegueira. InfoDesign. 2010; 5(3):24-36. Disponível em: < https://www.infodesign.org.br/infodesign/article/view/61 >. Acesso em 23 ago. 2022.

29. Brasil. Decreto nº 5.296 de 2 de dezembro de 2004. Regulamenta as Leis nos 10.048, de 8 de novembro de 2000, que dá prioridade de atendimento às pessoas que especifica, e 10.098, de 19 de dezembro de 2000, que estabelece normas gerais e critérios básicos para a promoção da acessibilidade das pessoas portadoras de deficiência ou com mobilidade reduzida, e dá outras providências. Diário Oficial da União. 2 dez. 2004 Disponível em: <http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/decreto/d5296.htm >. Acesso em 18 ago. 2022.

30. Agência Nacional de Vigilância Sanitária (Brasil). Resolução-RDC nº 71, de 22 de dezembro de 2009. Estabelece regras para a rotulagem de medicamentos Diário Oficial da União. 22 dez. 2009. Disponível em: <

https://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2009/res0071_22_12_2009.html >. Acesso em 27 ago. 2022.

31. Weeraratne CL, Opatha ST, Rosa CT. Challenges faced by visually disabled people in use of medicines, self-adopted coping strategies and medicine-related mishaps. WHO South-East Asia J Public Health. 2012; 1(3):256-67. Disponível em: < https://www.who-seajph.org/text.asp?2012/1/3/256/207022 >. Acesso em 01 set. 2022.

32. Shetty S, Sunita S, Shetty I. Empowering the visually impaired by customized Braille prescription and thus reducing medication errors. Indian J Ophthalmol. 2021; 69(6):1388-90. Disponível em: < https://pubmed.ncbi.nlm.nih.gov/34011706/ >. Acesso em 01 set. 2022.

33. Lima MG, Loures BA, Pereira CA. Pedagógica para inclusão do deficiente visual no ensino superior. In Conferencia en CIDU 2018 Porto Alegre (Brasil); 2018; Porto Alegre. p. 1-11. Disponível em: < https://www.aidu-asociacion.org/objetos-tateis-como-proposta-didatico-pedagogica-para-inclusao-do-deficiente-visual-no-ensino-superior/ >. Acesso em 12 ago. 2022.

34. Brasil. Ministério da Saúde. Política Nacional de Saúde da Pessoa com Deficiência. Brasília (DF): Ministério da Saúde; 2010.

35. Brasil. Ministério da Saúde. Portaria nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS). Diário Oficial da União. 21 set. 2017. Disponível em: < https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436_22_09_2017.html >. Acesso em 30 ago. 2022.

36. Wiegand BB, Meirelles JM. Saúde das pessoas com deficiência no Brasil: uma revisão integrativa na perspectiva bioética. Rev. latinoam. bioet. 2019; 37(2):31-46. Disponível em: < https://revistas.unimilitar.edu.co/index.php/rlbi/article/view/3900 >. Acesso em 30 ago. 2022.

37. Marques SR, Lemos SM. Letramento em saúde e fatores associados em adultos usuários da atenção primária. Trab. educ. saúde. 2018; 16(2):535-59. Disponível em: < https://www.scielo.br/j/tes/a/FDsyPny6mSdsCGcJG9jLLqm/?format=pdf&lang=pt >. Acesso em 30 ago. 2022.

38. Nota da Organização Nacional de Cegos do Brasil (ONCB) sobre o Dia Nacional do Braille. ONCB. 2021. Disponível em: < https://www.oncb.org.br/nota-oncb-dia-nacional-braille/ >. Acesso em 18 ago. 2022

39. Atractor. Tradutor Para Braille. Porto; 2022 [acesso em 2022 jun. 12]. Disponível em https://www.atractor.pt/mat/matbr/matbraille.html .

40. Lima TP, Sousa TV, Bezerra ML, Filha FS, Lima LM, Vilanova JM, et al. A inter-relação do acidente de consumo e assistência à saúde: revisão integrativa. REVISA. 2021; 10(3):469-80. Disponível em: < http://revistafacesa.senaaires.com.br/index.php/revisa/article/view/761 >. Acesso em 12 set. 2022.

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Pregnancy: implications for the pregnant woman's life

A presença paterna no momento do parto

Embarazo: implicaciones para la vida de la embarazada

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RESUMO

Objetivo: analisar a relevância da presença paterna no momento do parto. **Método:** estudo de abordagem qualitativa e método descritivo. A coleta dos dados se deu por meio de entrevista com 12 (doze) puérperas, com idade entre 18 e 41 anos, em uma maternidade da rede pública do Distrito Federal. **Resultados:** todas as entrevistadas compareceram às consultas de atendimento pré-natal, 92% delas tinham conhecimento prévio da lei do acompanhante, 58% receberam alguma orientação relativa ao seu próprio direito e de seu acompanhante, e todas foram acompanhadas pelo pai no momento do parto. A discussão das perguntas abertas gerou duas categorias, a saber: a participação do pai no momento do parto, e a vivência da parturiente durante o parto. **Conclusão:** a presença do companheiro é positiva e tranquilizadora no momento do parto e sugere-se a continuidade da formação dos profissionais de enfermagem neste tema, com o intuito de uma constante melhora no atendimento às mulheres no momento do parto, respeitando a lei e principalmente as escolhas da mãe, proporcionando um parto humanizado e seguro, minimizando traumas e medos.

Descritores: Gestante; parturiente; Acompanhante; Parto humanizado.

ABSTRACT

Objective: to analyze the relevance of paternal presence at the time of delivery. **Method:** qualitative study and descriptive method. Data were collected through interviews with 12 (twelve) puerpers, aged between 18 and 41 years, in a maternity hospital in the public network of the Federal District. **Results:** all interviewees attended prenatal care consultations, 92% of them had prior knowledge of the companion's law, 58% received some guidance regarding their own right and companion, and all were accompanied by the father at the time of delivery. The discussion of the open questions generated two categories, namely: the participation of the father at the time of delivery, and the experience of the parturient during childbirth. **Conclusion:** the presence of the partner is positive and reassuring at the time of delivery and it is suggested the continuity of the training of nursing professionals in this theme, with the aim of a constant improvement in the care of women at the time of delivery, respecting the law and especially the mother's choices, providing a humanized and safe delivery, minimizing traumas and fears.

Descriptors: Pregnant woman; Mother; Escort; Humanized childbirth.

RESUMEN

Objetivo: analizar la relevancia de la presencia paterna en el momento del parto. **Método:** estudio cualitativo y método descriptivo. Los datos fueron recolectados a través de entrevistas con 12 (doce) puerpers, con edades entre 18 y 41 años, en una maternidad de la red pública del Distrito Federal. **Resultados:** todas las entrevistadas asistieron a consultas de atención prenatal, 92% de ellas tenían conocimiento previo de la ley del acompañante, 58% recibieron alguna orientación sobre su propio derecho y acompañante, y todas fueron acompañadas por el padre en el momento del parto. La discusión de las preguntas abiertas generó dos categorías, a saber: la participación del padre en el momento del parto y la experiencia de la parturienta durante el parto. **Conclusión:** la presencia de la pareja es positiva y tranquilizadora en el momento del parto y se sugiere la continuidad de la formación de los profesionales de enfermería en este tema, con el objetivo de una mejora constante en el cuidado de las mujeres en el momento del parto, respetando la ley y especialmente las opciones de la madre, proporcionando un parto humanizado y seguro, minimizando traumas y miedos.

Descriptores: Mujer embarazada; Madre; Escoltar; Parto humanizado.

ORIGINAL

Introduction

Childbirth is considered a unique moment in a woman's life, and experiencing this experience with the life partner can amplify sensations on the physical, mental, emotional and social level. Throughout history, the moment of childbirth has gone through several phases, being considered from a divine event to a process mediated by medicine, leading the parturient from protagonist to object.[1]

Humanizing childbirth care has been a strategy of the Ministry of Health, with programs that guarantee pregnant women a quality care, respect and sensitivity, evidencing the trinomial woman-child-family.[2] The National Policy of Integral Attention to Men's Health seeks to make men aware of the duty and the right to participate in reproductive planning, from the decision to have children or not, how and when to have them, as well as the monitoring of pregnancy, childbirth, postpartum and child education.[3]

Expanding this context of humanization of childbirth in the country, Law No. 11.108, of April 7, 2005, regulates the presence of the companion throughout the process of the time of delivery.[4]

According to the Federal Nursing Council (COFEN), no. 477/2013 and 379/2015, nurses have autonomy for comprehensive care to pregnant women, parturients, puerperal women and newborns, being one of the pillars of the obstetric team.[5]

Seeking to go beyond the point of view of professionals in relation to the participation of the father in the delivery process, and looking at the possibility of fear of parents in experiencing this moment, we consider the importance of listening to parturientwomen.

The present study may contribute to the expansion of care for women and the humanization of childbirth, besides providing the professional with the knowledge of the feelings stimulated to the parturient when the father is accompanied at this time.

This study aims to analyze the relevance of the presence of the father at the time of delivery, in a maternity of the public network of the Federal District.

Methodology

This work uses as methodology, the descriptive and qualitative approach, following the assumption of Oliveira (2011).

The study was conducted in 2022, in a public hospital in the western region of the Federal District, with 12 (twelve) women who gave birth and had their father as a companion during the moment of delivery. The interviews were initiated only after the approval of the ethics committee on research with human beings of FEPECS/DF with opinion number 5,706,116, following all ethical recommendations recommended in CNS resolution 466 of 2012.

As inclusion criteria, we interviewed women over 18 years of age, who gave birth without significant complications, who had the presence of the father as a companion, and that the children did not need neonatal intensive treatment, besides manifesting good physical and psychological conditions to answer the questions of the interview.

As a collection instrument, a questionnaire was elaborated with 11 (eleven) questions, 9 (nine) multiple choice questions, and 2 (two) open

questions, which were recorded and transcribed in a reliable way, covering socioeconomic aspects of the puerperal woman; obstetric history; information given in prenatal care; experience of the moment of delivery and presence of the father at this moment.[6]

The data were analyzed in stages, the first stage being data reduction and simplification. The second stage, presentation and organization of the data and in the third stage, the conclusion of the study.[7]

Theoretical Framework

Childbirth, for a long time, was considered a ritual of celebration to femininity, in which the woman was the protagonist. Variations in the ways of treating childbirth come from cultural diversity, and may undergo changes due to social aspects. Being considered a women's issue, doctors only intervened when childbirth was referred to as difficult by the midwife, as they represented the best option for childbirth care.[8]

This perception began to change in the sixteenth century, with the use of new techniques and procedures in health care. The discreditof the midwives came with the present misogyny of the time. With the change of scenery, deliveries began to be performed in health institutions, being treated not only as a physiological process, but directing the protagonism to the figure of the doctor.

With the arrival of forceps, an instrument created for the extraction of babies in cases of difficult deliveries, an alternative to cesarean sections, surgeries with greater possibility of infections and which caused more maternal deaths at the time of delivery.[9]

With the institutionalization and improvement of hygiene conditions, cesarean section no longer represented only a risk, but nodded with the possibility of a lucrative obstetric system, because scheduling and medicalization made the process fast and painless. In the hospital environment, planned to meet the needs of health professionals, the parturient found himself in the place of vulnerability and acceptance of the circumstances, which generated a greater sense of security, since childbirth was not considered only physiological.[10]

In Brazil, considered the country with the highest rate of cesarean sections in the world, this practice reaches 27% of deliveries in the public health system, reaching 90% of deliveries in the private network, to the point that the one indicated by the WHO, World Health Organization in 2012, with revision in 2015, should be 10 to 15% of deliveries. Who also suggests that robson's universal classification be applied worldwide, a document that allows comparing the different rates of cesarean sections between hospitals, countries and cities.[11]

In Ceará, a project was created more than a decade ago, in which the obstetrician José Galba de Araújo advocated normal childbirth, in addition to the humanization of childbirth and birth. The Galba de Araújo Award, came to celebrate and aims to perform the evaluation of public maternity hospitals, choosing and certifying a hospital of each of the five macro-regions, for the emphasis on the humanization of the care of women and newborns. In turn, Ordinance No. 569, of June 1, 2000, establishes the Prenatal and Birth Humanization Program, whose main objective is to reorganize the care of the parturient, formally linking prenatal care to childbirth and the postpartum period, with the expansion of women's access to these programs, and the guarantee of quality with the performance of a minimum set of procedures.[12]

Currently, there are programs such as the National Policy of Integral Attention to Men's Health, which seek to make men aware of the duties and rights to participate in reproductive planning, from the decision to have children or not, how and when to have them, as well as the monitoring of pregnancy, childbirth, postpartum and child education.[13]

The devaluation of birth and the loss of the welcoming environment make some women want to give birth at home, in a planned way, with the help of obstetric nurses, doulas and obstetricians, without modernity and the supposed safety of childbirth in a hospital. For pain relief are used non-pharmacological practices such as baths, massages, horse and ball.[12]

Institutional violence, which describes the set of perceptions resulting from procedures widely used in delivery rooms, is justified by some health professionals, as the result of the precariousness of public services, the lack of physical space in prepartum rooms, or the availability of exclusively female accommodation in maternity hospitals, which would make it impossible for male parents or companions to enter. However, the issue of the involvement of the father/companion at the time of delivery has been widely discussed, as an indispensable factor for changing the paradigm of the search for a humanized care.[8]

It has long been perceived that the presence of the father at birth helps to fill an existing gap in care. It is recognized that women at the time of delivery require psychological and affective support, since, due to the demand for the dynamics of hospital work, professionals who offer support have little time to be with parturientwomen. It is believed that hospitals should allow and encourage the presence of the father, so that he assumes an active role in the care of the partner during the moment of delivery.[13]

The Ministry of Health, exercising its normative and regulatory role, has implemented a set of actions, through ministerial ordinances, with the objective of stimulating the improvement of obstetric care.[14]

Reinforcing the perceptions and practices mentioned, the importance of the role of the obstetric nurse results in great benefit for obstetric care and the valorization of the professional, and is based on the Ordinance of the Ministry of Health No. 2815/98, of May 29, 1998, to act in the care of normal delivery of low risk or habitual risk. It also argues that each woman should be treated in a unique way at the time of giving birth, prioritizing individualized care and in an integral way.[15]

The humanization of health services has come to reduce unnecessary interventions, such as excessive cesarean section practice and with consequent reduction in maternal and perinatal morbidity and mortality.[16]

According to the National Guidelines for Normal Delivery Care, women at the time of delivery should be treated with respect, have access to evidence-based information, and be included in decision-making. For this, the professionals who attend them should establish a relationship of trust with them, asking them about their desires and expectations. Humanization consists of providing the parturient through care, a passage from one emotional moment to another, with security, balance and harmony.[17]

The personal training of professionals, qualifying these for the care of women in the prenatal and birth period, is extremely important to improve the quality of care, strengthening the relationship of the professional with the parturient and their companions.[3]

The nurse as an important member of the health team can provide situations to improve the reception and humanization of childbirth, taking a careful look at the needs of the woman and decreasing the number of interventions in the process, with empathy, effective communication and proactive actions of health education, besides providing the father's support to the moment of delivery.[18]

While the health team has its place delimited in childbirth care, it also needs to recognize the potential of the father and the benefits of his support for the woman during the delivery process, which may vary according to the care characteristics of hospital institutions, the type of provider and the duration of support.[19]

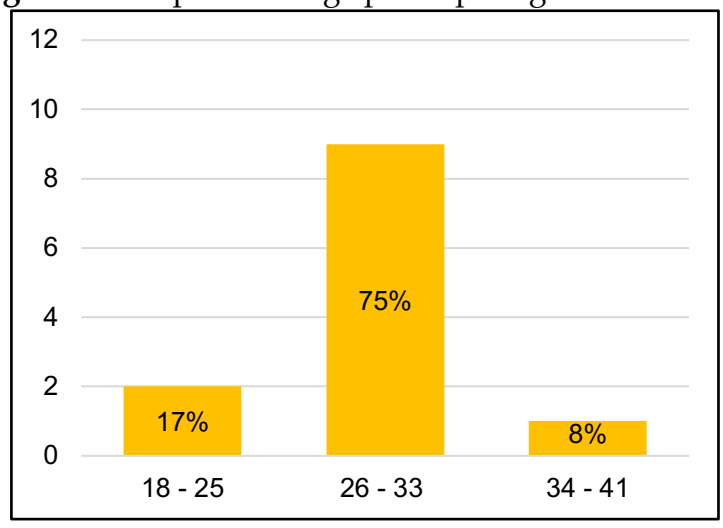
A study on the view of the companion in relation to their performance during the process of parturition, showed that it is necessary to give space to the agents directly involved in this process, because they sometimes feel intimidated by health professionals, discouraged from participating, being only supervisors of obstetric care. The limited participation of the companion is due to the model of interventional care at delivery and prejudices in view of the possibility of an active companion. These two points also influence the lack of commitment of professionals to welcome and insert the father in the birth process.[19]

It is noticed that although professionals demonstrate an openness to accept the presence of the father, this practice is still involved by feelings of apprehension. However, even surrounded by these feelings, professionals who work in childbirth and birth care report as positive the presence of the companion, recognizing the benefits of their contribution in the physiology of childbirth and in improving the quality of care and their performance with the mother-child in establishing the family bond.[20]

Results

The results of this study emerged from 12 (twelve) interviewees; the following is the profile of the participants: aged between 18 and 41 years; 75% are between 26 and 33 years old, 17% between 18 and 25 years old, and 8% between 34 and 41 years old, as shown in Figure 1 below.

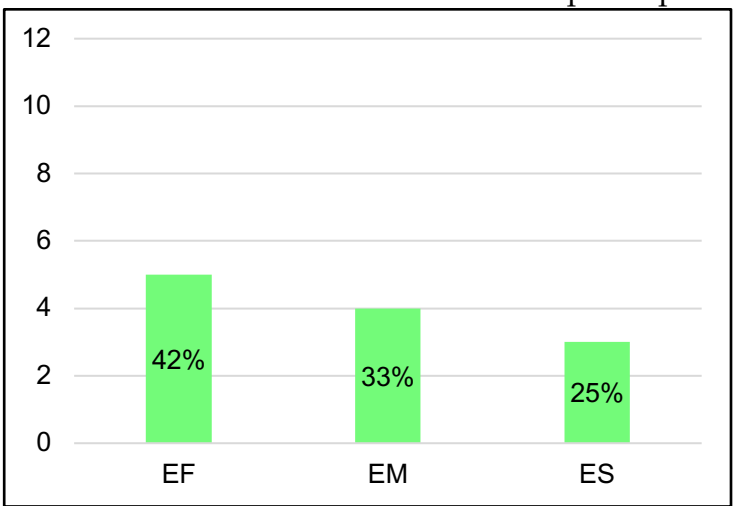
Figure 1 - Graph of the age participating in the research**.**



According to the National Policy of Integral Attention to Women's Health, instituted by the Ministry of Health in Brazil, women between 10 and 49 years are considered of reproductive age, which corresponds to 65% of the total female population of the country, a range also portrayed in the distribution of ages of the respondents of the survey.[21]

Regarding the education of the interviewees, the research presented 42% of them with elementary school education as a school education. 33% said they had completed high school, while 25% reported having completed higher education, as shown in Figure 2.

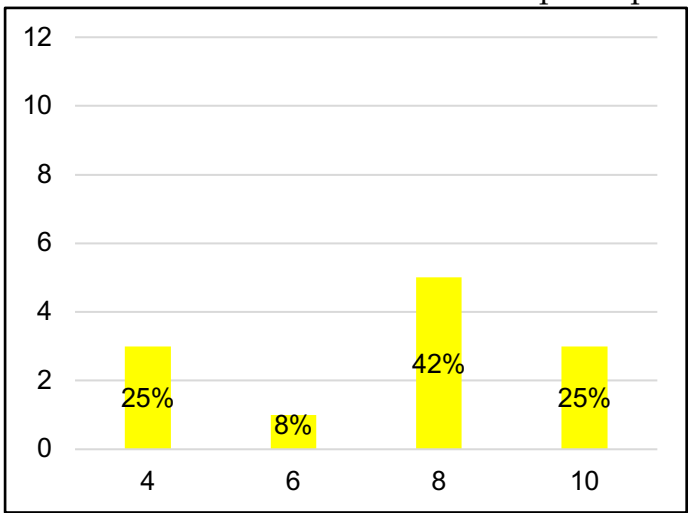
Figure 2 - Level of education of the research participants. 2022.



EF - Elementary School; EM - High School and ES - Higher Education

Of the parturients interviewed, all reported having performed prenatal care. However, when asked about attending prenatal program visits, 75% of the interviewees reported having been seen in eight or more consultations, 8% attended at least six consultations, while 25% reported having been assisted in only four consultations, as shown in Figure 3.

Figure 3 - Prenatal consultations of the research participants. 2022.

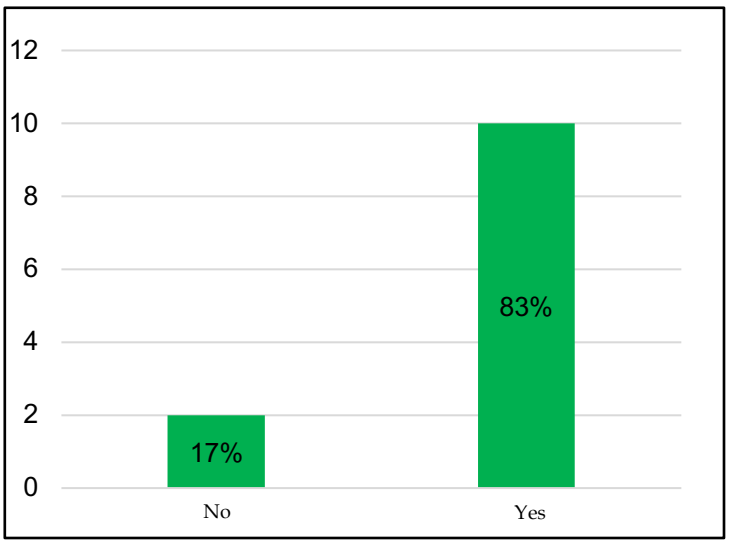


As recommended by the Ministry of Health for Brazil, so that a set of postpartum care is considered as prenatal care, the total number of consultations must be at least six consultations, and can be performed by a qualified physician

or nursing professional, preferably following the following schedule: monthly consultations until the 28th week, fortnightly consultations from the 28th to the 36th week, and with weekly visits until the time of delivery.[21]

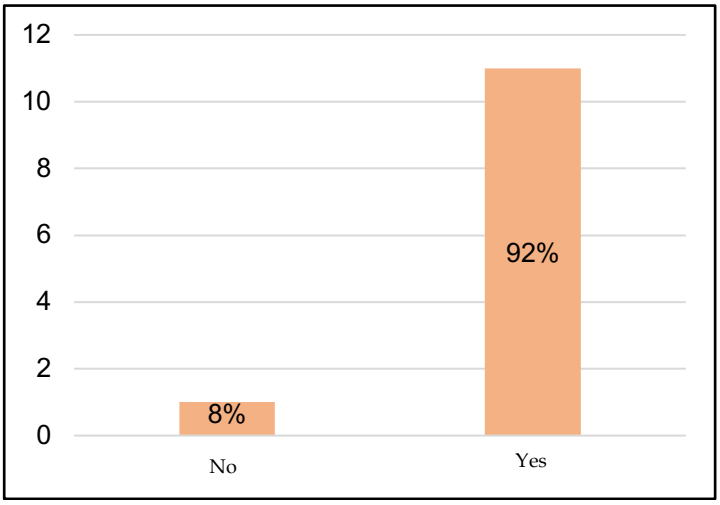
Regarding the experience of previous deliveries, 83% of the parturientwomen reported having already experienced one or more deliveries. Only two interviewees, 17%, were in their first experience of delivery, as shown in Figure 4.

Figure 4 - Percentage participating in the research according to experience with previous deliveries. 2022**.**



Regarding the knowledge of Law No. 11,108, of April 7, 2005, which governs the right of the companion's right to stay during the moment of delivery, 92% of the interviewees reported having previous knowledge about the subject, knowledge obtained through television and the Internet. Only one parturient (8%) reported not having knowledge about the subject, as shown in Figure 5.

Figure 5 – Parturients who were aware of law 11,108 of 2005, who participated in the research. 2022.

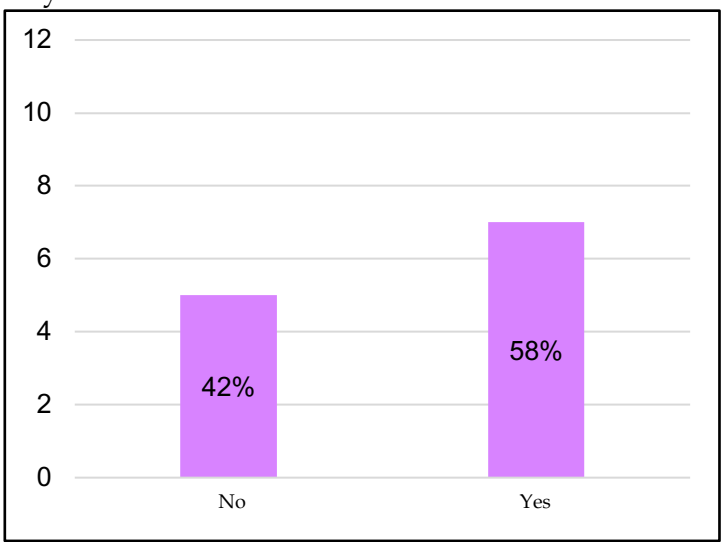


From this proportion of positive responses, it is possible to observe the growing expansion in the knowledge of the rights arising from Law no. 11,108/2005, which for more than fifteen years instituted for public and private

health services, the option for women in the free choice of a companion for the moment of delivery. The Humanization Policy of Childbirth and Birth reinforces the importance of ensuring the understanding of women in relation to the theme, so that the guarantee of this right, since prenatal care, allows a conscious decision-making, a choice of the companion without trampling, and a delivery process with greater respect, support and trust.[22]

Although this study demonstrated predominant knowledge of their rights by the participants, the research also revealed that only 58% of the participants stated that they had received some guidance on the procedures in relation to the participation of the father at the time of delivery, while 42% reported not having received any guidance, as shown in Figure 6.

Figure 6 - Study participant who received guidance on the presence of the father at the time of delivery. 2022.



The Ministry of Health, in the formulation of the National Guidelines for Normal Delivery Care, included among the general care during the moment of delivery, the duty to inform the postpartum woman during prenatal care of the need to choose a companion to support her during the moment of delivery. It also adds that the chosen companion should receive important information about childbirth at the same time as the woman.[23]

Discussion

For the discussion of this study, two categories were organized, which related to the participation of the father at the time of delivery, and on the experience of the parturient during childbirth. The second category was also subdivided into two subcategories, which discuss the feelings experienced during childbirth and about the experience of the parturient with health professionals, as presented below:

Participation of the newborn's father at the time of delivery

The presence of a reliable companion at the time of delivery was indicated as positive by 100% of the parturients interviewed, as could be seen from the answers transcribed in their entirety, as follows. “

My husband's presence in childbirth was very good, because he had the moment I spent it was going to be two years that I lost my mother and he was a more special person in my life who arrived when I entered the birth, he was the first to hold my daughter, and because it was very first to come in with me." (N1)

> "So when you have a date with you, even the baby's father, everything is more perfect. The closer he is, touching you, touching, you feel safer, it's a thousand times perfect, the better with escort. Who was my companion was my companion." (N2)
>
> "It was wonderful, it was very important to me, very cool. He helped me in the contractions, helped me to go to the bathroom, helped me in everything, for sure having a companion gave me total security, much more than I expected." (N3)
>
> "I didn't feel very comfortable not, but until it was reasonable. My companion stayed all the time, including at the time of birth, accompanying tudinho. It was important." (N4)
>
> "Very active, it helped me a lot, it was very important, it made all the difference in the sense of feeling more welcome, safer. He helped during childbirth, doing massage, stimulation, I felt calm, gave me tranquility, positivity, telling me that everything was going to work out right? His presence was fundamental." (N5)
>
> "It was important, wasn't it? For me to feel safer, as I never had a cesarean section, this was the first, I've had two other deliveries and were normal. So C-section I didn't know, right?" (N6)
>
> "Giving me moral support. Passing confidence right? Giving strength at the moment it's necessary. And he was there to help me, very good. It's very good security. Because we see a lot of reports, right? Of several things happening unfortunately, and then having someone to follow is very good, we are safer, because we become very unstable, vulnerable." (N7)
>
> "I didn't get into labor, I arrived with a lot of swelling. And then I think I had requested an examination, in this exam came that had the umbilical cord that was spent two laps in his neck, and then also because of the size of the baby it was necessary to do the cesarean section. The delivery was quiet, it was very fast, very quiet. Then, when it comes here (recovery), that there begins more news, a certain degree of difficulty, but the delivery itself was very quiet. The same recovery issue, which is all much more difficult." (N8)

> "My partner was instrumental during labor. Because it was a long labor that lasted almost 24 hours I managed to dilate only 9 cm with a lot. After many attempts a lot of pain but my companion was there giving me emotional support calming me saying that everything was always going to work out on my side there. It was critical for my companion to speak on my side supporting me and everything I needed." (N9)

> "During labor his participation was fundamental because he was on my side all the time supporting me by calming me by telling me that I was already strong that I was going to get it and it was a very important moment a unique moment when our son was born." (N10) "Participação dele foi fundamental foi importante." (N11)

> "My companion was very important because I was very scared and he was there by my side calming me down." (N12)

In the interviews, when talking about the participation of the newborn's father, the parturients spontaneously reported an extensive range of previous feelings, such as ignorance, insecurity and fear, which also surfaced as physical sensations of pain and suffering at the time of delivery. However, this whole set of effects could be experienced in a less traumatic way, thanks to the support felt, the feeling of closeness, the words of comfort uttered, the emotional support and the positivity received by the presence of a companion.

The importance of the proximity of someone of confidence of the parturient has been reported as positive also in previous studies, which also point to the perceived decrease in the risk of complications during childbirth. The support and safety provided, as fundamental for the delivery to be lived in a positive and pleasurable, non-traumatic way. A better use of this possibility can result from the sensitivity and support of the team of health professionals involved, so that the proper emotional support and safety are transmitted to both during childbirth.[24]

Experience during childbirth

The diversity of sensations, feelings and perceptions of each experience reported by the interviewed parturients is very expressive. While some reports suggest relative tranquility and speed in the delivery process, others add details of complications, with greater pain and suffering, as follows.

> "My experience in childbirth was very fast, very fast. There's no way I can explain how it went." (N1)

> "My labor was kind of complicated, I started feeling two days before, and I was holding right, because I wasn't regulating according to what was to regulate. And I kept holding, holding, then there was power in my house, and I ran out of light and nothing, and the husband didn't get home, so I said, oh my God, I'm going to get baby right here.

Then, as soon as he arrived we ran to my mother's house, I managed to take a bath, I arrived here and was already nine centimeters, only I could not walk anymore, I was attended to by the doctors in the wheelchair." (N2)

"It was very difficult, I managed to dilate up to 5 cm, then I did not dilate anymore, then I had to go through cesarean section, so it was two deliveries right? so it was very difficult, and the presence of my assistant was very important to me." (N3)

"Tiring, I've been in a lot of pain, one contraction after another, I was seven centimeters, and then it was only getting worse. I thought it took a while, because of the pain, it feels like forever. I arrived at seven and a little, and I won at 8:18. It's because I've already arrived with two centimeters. But because when you think, it takes right?" (N4)

"It was a fast labor because I was already in advanced dilation and respected my will. Because I didn't want, at the end of the expulsion a cut, so they respected me and I didn't have episiotomy, it was very quiet." (N5)

"Oh, it was a blessing, the team, all in itself, was so fast that, I thought it would take longer, half an hour was all over already." (N6)

"It was pretty quick. I got here, my bag had already burst, and then I went into the office, the doctor went to make the touch, right, could not make the touch because she was already being born. And then he was born. The contractions came right, and she was born real quick. The two were normal, normal childbirth is much better, it is well suffered but after the baby is born it is very quiet." (N7)

"I didn't get into labor, I arrived with a lot of swelling. And then I think I had requested an examination, in this exam came that had the umbilical cord that was spent two laps in his neck, and then also because of the size of the baby it was necessary to do the cesarean section. The delivery was quiet, it was very fast, very quiet. Then, when it comes here (recovery), that there begins more news, a certain degree of difficulty, but the delivery itself was very quiet. The same recovery issue, which is all much more difficult." (N8)

"My labor I was able to give an opinion, I was able to actively participate in it, I just have to thank, we tried normal delivery, but it was not possible but thank god we are super well just have to thank the nursing staff and the doctors." (N9)

"My delivery even though I'm afraid because we're afraid of childbirth right. It was a birth for me was perfect. Childbirth was a unique moment at the time I was afraid my anguish i had a certain fear of childbirth." (N10)

> "I found it quieter than the others and felt very safe." (N11)
>
> "I felt very afraid, but in the presence of my companion. I was very scared." (N12)

Although childbirth is a natural process of women's physiology, it carries numerous associated factors. Cultural issues, previous experiences of their own or third parties, various inities, and the very emotion of motherhood, while they broaden the perception and appreciation of this experience, can make the birth scenario disturbing for many women, and may even cause harm to physical and emotional health. Therefore, the presence of a companion, someone who can support the woman at this time, is pointed out as directly impacting on the reduction of anxiety and negative feelings related to childbirth.[25]

Feelings during childbirth

The sensations of fear, the fear of being alone, the personal anguish, are part of the set of sensations reported by the parturients at the time of delivery. In addition, it also draws attention to the distrust and discomfort caused by ignorance in relation to the physician.

> "It's wonderful. When you're going to get a baby, you get uncomfortable because you're afraid of the doctor, or do something to you, that you don't know, or just unknown person there." (N2)
>
> "I was a little afraid to be alone. I was afraid of too much childbirth. He stood there with me, supporting me, right, all the time." (N6)
>
> "Childbirth was a unique moment at the time I was afraid my anguishies I had a certain fear of childbirth." (N10)
>
> "I was very afraid, but with the presence of my companion, it was very good." (N12)

The isolation of women in unknown environments destined for delivery, as well as the separation of family members, as causes of feelings of fear and anxiety that can cause alteration in the physiology of childbirth, enabling the deregulation of fundamental substances in the process of dilation of the cervix. On the other hand, the safety and comfort that came from the proximity of a companion of free choice of the woman, by allowing the sharing of fears and unease, allows the reduction of the use of medications for pain relief, a lower incidence in cesarean sections and episiotomies, and the improvement in Apgar indexes in newborns.[26]

In this category a curious report that the participant says she feels "fear of the doctor", perhaps influenced by the abuse that occurred in Rio de Janeiro to the parturient by the anesthesiologist.[27]

Experience with health professionals

When reporting their experience with health professionals at the time of delivery, all women respondents reported having received quality care, giving praise to the nursing team and expressing gratitude for their support, reception and prompt care.

> "The service was super fast, already put me to win baby at the same time. As soon as I arrived at the hospital, my husband took the wheelchair for me, because I was not getting to walk anymore, I was nine centimeters and already took me straight to the doctor, I was attended well by the staff, and already sent me straight to labor." (N2)
>
> "I've already arrived here that I'm from another city and I've arrived and i've been directly attended, very well attended, the team that watched me, wonderful, I didn't feel any failure. All very affectionate and calm, gave me tranquility, I did not feel any embarrassed. I have nothing to complain about." (N5)
>
> "Very good, they made me feel well." (N7)
>
> "The doctor opted for a cesarean section because he couldn't get it dilated and the baby wouldn't pass, but thank God it all worked out. The nursing staff was wonderful just got compliments gave me strength made me feel good at ease." (N9)
>
> "The nursing staff there on my side giving me support all the guidance showing me that everything telling me that everything was going to work out that I got that I was strong that my son was there ready to come into the world I just have to thank the whole nursing team who were instrumental at that time helped me a lot made all the difference to me." (N10)
>
> "At the time of delivery only nurse, but in labor the nurse and the doctor." (N11)
>
> "Calming me my delivery went well and I am very grateful for it the presence of my husband and the participation of all the commitment of the nursing team was fundamental I just have to thank the nurses who were there on my side all the time giving me strength guiding me was all perfect exceeded my expectations because I was so afraid." (N12)

The presence of a companion at the time of delivery increases the possibility of better care and guidance by the health professionals involved. There is an improvement in the possibility of choosing women on other issues that are very important in the experience, such as the position of expulsion, non-submission, restraint, analgesia and even in the best practices later, such as breastfeeding in the first hour of life and other necessary care.[28]

Final Considerations

The study pointed out that the presence of the father at birth contributes significantly to the perception of well-being and care of the postpartum woman, expands the desired humanization at the time of birth, and confirms the need for psychological and affective support of the woman at the time of delivery.

However, for these impressions to be felt in their entirety, it is essential that the woman and her previously chosen companion, as

well as the nursing team and health professionals involved, be aware of Law No. 11.108, of April 7, 2005, which governs the right of the companion to stay during the moment of delivery, so that she can welcome the postpartum person, respecting her right at a unique moment in her life, which is the arrival of a child.

Although it presents expressive reports, a larger sampling could broaden the scope of the research. The reduction in the number of interviewees is due to the physical limitation of the place surveyed, since the maternity used in the study does not have a reserved place where the interviewees could report their experience and that of their partner during the moment of delivery.

It is advisable to continue the training of nursing professionals in this theme, with the aim of a constant improvement in the care of women at the time of delivery, respecting the law and especially the choices of the mother, providing a humanized and safe delivery, minimizing traumas and fears.

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References

1. Dos Santos IG et al. Importância do acompanhante e do contato pele a pele no parto e no nascimento. Revista Recien - Revista Científica de Enfermagem, v. 11, n. 36, p. 268-275, 2021.

2. Toral, A et al. Assistência de enfermagem na humanização do parto: uma revisão integrativa. Revista Eletrônica Estácio Saúde, v. 8, n. 1, p. 45-53, 2018.

3. Henz GS, Medeiros CRG, Salvadori M. A inclusão paterna durante o pré-natal. Revista de Enfermagem e Atenção à Saúde, v. 6, n. 1, 2017.

4. Brasil. Lei n 11.108 de 7 de abril de 2005.

5. Brasil. Conselho federal de enfermagem (COFEN). n. 477/2013 e 379/2015.

6. Leal, NP, et al. Práticas sociais do parto e do nascer no Brasil: a fala das puérperas. Ciência & Saúde Coletiva 26, 941-950, 2021.

7. De Oliveira ASS et al. O acompanhante no momento do trabalho de parto e parto: percepção de puérperas. Cogitare Enfermagem, v. 16, n. 2, 2011.

8. Brüggemann, OM., Parpinelli, MA., & Osis, MJD. Evidências sobre o suporte durante o trabalho de parto/parto: uma revisão da literatura. Cadernos de Saúde Pública, 21, 1316-1327, 2005.

9. Vendrúscolo CT, Kruel CS. A história do parto: do domicílio ao hospital; das parteiras ao médico; de sujeito a objeto. Disciplinarum Scientia, Ciências Humanas, v. 16, n. 1, p. 95-107, 2015.

10. Toral A. et al. Assistência de enfermagem na humanização do parto: uma revisão integrativa. Revista Eletrônica Estácio Saúde, v. 8, n. 1, p. 45-53, 2018.

11. Brandt GP. et al. Violência obstétrica: a verdadeira dor do parto. 2018.

12. Moura FMJSP A humanização e a assistência de enfermagem ao parto normal. Revista Brasileira de Enfermagem, Brasília; p. 60; 452-5, 2007.

13. de Oliveira, PC. Et al. Os benefícios da presença do pai no trabalho de parto e parto. Brazilian Journal of Development, 7(2), 18142-18159, 2021.

14. À mulher, Assistência Humanizada. Parto, Aborto e Puerpério Assistência Humanizada à Mulher.

15. Brasil. Ministério da Saúde. Portaria nº 2.816/GM de 29 de maio de 1998.

16. Jardim DMB. Pai-acompanhante e sua compreensão sobre o processo de nascimento do filho. 2009. 124f. Dissertação (Mestrado) – Escola de Enfermagem, Universidade Federal de Minas Gerais, Belo Horizonte, 2009.

17. Brasil. Departamento de Gestão e Incorporação de Tecnologias em Saúde; Diretrizes nacionais de assistência ao parto normal: versão resumida. 2017.

18. Cardoso VEPS, Silva Junior AJD, Bonatti AF, Santos GWSD, & Ribeiro TAN. A participação do parceiro na rotina pré-natal sob a perspectiva da mulher gestante. Rev. pesqui. cuid. fundam. (Online), 856-862, 2018.

19. Brüggemann OM, Parpinelli MA, Osis MJD "Evidências sobre o suporte durante o trabalho de parto/parto: uma revisão da literatura." Cadernos de Saúde Pública 21: 1316-1327, 2005.

20. Nakano, AMS et al. O suporte durante o processo de parto: a visão do acompanhante. Acta Paulista de Enfermagem, v. 20, p. 131-137, 2007.

21. Brasil. Departamento de Ações Programáticas Estratégicas. Política nacional de atenção integral à saúde da mulher: princípios e diretrizes. Editora MS, 2004.

22. Brasil. "Humanização do parto: humanização no pré-natal e nascimento", 2002.

23. Rodrigues, DP, et al. "O descumprimento da lei do acompanhante como agravo à saúde obstétrica." Texto & Contexto-Enfermagem 26, 2017.

24. Matos, MGD., Magalhães, AS., & Féres-Carneiro, T. Violência Obstétrica e Trauma no Parto: O Relato das Mães. Psicologia: Ciência e Profissão, 41, 2021.

25. Castilho, SA. et al. O resgate do parto normal: as contribuições de uma tecnologia apropriada, 2000.

26. Souza, SRRK, and Gualda, MRG. "A experiência da mulher e de seu acompanhante no parto em uma maternidade pública." Texto & Contexto-Enfermagem 25, 2016.

27. Marinatto, L. Rio tem um estupro em hospital a cada 14 dias; cidade onde anestesista foi preso é a quinta com mais casos. Agência O Globo [internet]. 2022 out 16. Disponível em: https://oglobo.globo.com/google/amp/rio/noticia/2022/07/rio-tem-um-estupro-em-hospital-a-cada -14-dias-cidade-onde-anestesista-foi-preso-e-a-quinta-com-mais-casos.ghtml

28. Tomasi, YT, et al. "Do pré-natal ao parto: um estudo transversal sobre a influência do acompanhante nas boas práticas obstétricas no Sistema Único de Saúde em Santa Catarina, 2019." Epidemiologia e Serviços de Saúde 30, 2021.

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