

Nursing place is where she can and know how to act: Contributions to the attention to people on the Autistic Spectrum

Lugar da enfermagem é onde ela puder e souber atuar: Contribuições na atenção a pessoas no Espectro Autista

Lugar de enfermería es donde se puede y se sabe actuar: Contribuciones en la atención a personas en Espectro Autista

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Nursing is a profession committed to the production and management of care, which in turn can and should be provided in different socio-environmental and cultural contexts, acting with autonomy and in line with the ethical and legal precepts, technical-scientific and theoretical-philosophical, in response to the needs of the person, family and collectivity, seeking to exercise their activities competently to promote the human being in its integrity.¹

Therefore, nursing can act at various levels of health care, from primary care, medium and high complexity, finding in the Family Health Strategy a valuable and vast field of care, in which, from interdisciplinary and multiprofessional cooperation, develops preventive and curative activities, in line with the current public health policies.²

Among the attributions of nursing professionals stand out those aimed at Child Health actions, through monitoring of growth and development (ACD) with a view to detecting early changes that need interventions contemplating guidance, establishment of nursing diagnosis, planning of demands and timely referrals.

One of the disorders that can be identified and conducted by nursing, guarding the specific attributions of the profession, is Autism Spectrum Disorder (ASD), a neurodevelopmental disorder characterized by deficits in communication and social interaction and restricted and repetitive patterns of behaviors, interests and activities.³

Consequently, based on protocols based on the Systematization of Nursing Care, using the constructs of nursing theoritis recognized effective when adequately employed, as demonstrated in an intervention proposal applying the Theory of Adaptation of nurse Callista Roy to parents of children with ASD⁴, or using the assumptions of Dorothea Orem to teach self-care skills to the children themselves with ASD.⁵⁻⁶

Recently, the General Care Line was elaborated and disclosed to this public in order to expand the access of this population to health care services, with emphasis on care quality, from the organization of five care points for the flow of referral, initial management and therapeutic planning, which: primary care unit, specialized care, emergency care unit, mobile care service and hospital unit.⁷

Each site presents activities for the conduction of cases, which include evaluation and early diagnostic confirmation, therapeutic planning, shared follow-up, implementation of stimulation measures, drug prescription, exchange with the Psychosocial Care Network(PCN), commitment to health surveillance and the actions of managers.⁷

It is undeniable that nurses have sufficient knowledge to present themselves as protagonists in the care of people with ASD in any of these areas, developing interventions based on a routine of reception and listening, in addition to the teaching of step by step feeding care, personal hygiene, use of symbolic games, cognitive stimulation, reduction/extinction of stereotyped behaviors and inappropriate communication.

During nursing consultations and other child care, families should be given the opportunity to acquire as much knowledge as possible so that they can work in the development of skills essential to life in society, including academic and work, in addition to emotional, functional and others. Thus, as nurses use evaluative instruments such as the Child Health Booklet or other specific ones for the recognition of ASD, such as the M-CHAT-R scale (Modified Checklist for Autism in Toddlers-Revised), they need to elaborate the Nursing Diagnoses and propose the appropriate interventions, especially through the evaluation and follow-up of the milestones of child development.

Nurses need to understand the importance of its work in the various scenarios of health care of the person with ASD, not being free from providing care that can be definitive in the acquisition and expansion of fundamental competencies for an independent and autonomous life, and this qualification is inherent to the profession, achieved from graduation and expanded through courses and studies about the child's follow-up and learning actions principles in mental health.

It is essential to extinguish restrictive and limiting thoughts that Nursing cannot and/or should not develop practices in this or that area or for some audiences, because it is a profession committed to the life and health of people, from intrauterine passage to senescence and at the moment of death, effective and fundamental to public and/or private health, worldwide and which, in relation to ASD, composes the list of workers who must act in the line of care⁷ to care for these people and their families in the PCN at the Unified Health System.

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Feeding and Practice of Physical Activity in the Treatment of Polycystic Ovarian Syndrome: Integrative Review

Alimentação e Prática de Atividade Física, no Tratamento da Síndrome dos Ovários Policísticos: Revisão Integrativa

La Alimentación y la Práctica de la Actividad Física en el Tratamiento del Síndrome de Ovarios Poliquísticos: Examen Integrador

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RESUMO

Objetivo: investigar a importância da alimentação saudável associada à prática de atividades físicas, no auxílio ao tratamento contra a síndrome dos ovários policísticos (SOP). **Método:** optou-se por um estudo de revisão integrativa nas bases de dados Scielo, Lilacs e Bireme. **Resultados:** é uma patologia que requer atenção, pela delicadeza a que é imposta, por acometer os ovários da mulher, porém existem meios de minimizar os sintomas e prevenir complicações. **Conclusão:** a prática de exercícios físicos combinados a uma alimentação balanceada, são essenciais no tratamento. Ainda melhora no metabolismo corporal, alterações hormonais e cardiorrespiratórios, dentre outras vantagens. Ter consciência da doença e fazer o tratamento corretamente, são fatores que contam positivamente, evitando assim, possíveis complicações futuras.

Descritores: Síndrome do Ovário Policístico; Qualidade de Vida; Obesidade; Estado Nutricional; Atividade Física.

ABSTRACT

Objective: to investigate the importance of healthy eating associated with the practice of physical activities, in helping to treat polycystic ovarian syndrome (PCOS). **Method:** na integrative review study in Scielo, Lilacs and Bireme databases was chosen. Results: it is a pathology that requires attention, due to the delicacy to which it is imposed, for attacking the ovaries of women, but there are ways to minimize the symptoms and prevent complications. **Conclusion:** the practice of physical exercises combined with a balanced diet, are essential in the treatment. It also improves body metabolism, hormonal and cardiorespiratory changes, among other advantages. Being aware of the disease and doing the treatment correctly are factors that count positively, thus avoiding possible future complications.

Descriptors: Polycystic Ovary Syndrome; Quality Of Life; Obesity; Nutritional Status; Physical Activity.

RESUMEN

Objetivo: investigar la importancia de una alimentación saludable asociada a la práctica de actividades físicas, para ayudar a tratar el síndrome de ovario poliquístico (SOPQ). **Metodología:** se eligió un estudio de revisión integrador en las bases de datos Scielo, Lilacs y Bireme. **Resultados:** es una patología que requiere atención, debido a la delicadeza a la que se impone, para atacar los ovarios de las mujeres, pero hay formas de minimizar los síntomas y prevenir complicaciones. **Conclusión:** la práctica de ejercicios físicos combinados con una dieta equilibrada, son esenciales en el tratamiento. También mejora el metabolismo corporal, los cambios hormonales y cardiorrespiratorios, entre otras ventajas. El conocimiento de la enfermedad y la aplicación correcta del tratamiento son factores que cuentan positivamente, evitando así posibles complicaciones futuras.

Descripciones: Síndrome de Ovarios Poliquísticos; Calidad de Vida; Obesidad; Estado Nutricional; Actividad Física.

Introduction

Polycystic ovary syndrome (PCOS) is a disease that affects 20% of women during the reproductive life phase, mainly women aged between 17 and 39 years. PCOS is a complex endocrine disease whose main elements are hyperandrogenism and chronic anovulation.¹

PCOS is a disease caused by the imbalance of hormones in women, of multifactorial cause. It can change the menstrual cycle, cause skin problems and cause small cysts in the ovaries that ultimately can cause difficulty in getting pregnant. It is characterized by signs of menstrual irregularity, amenorrhea, hirsutism, acne, alopecia and seborrhea. The name given to this syndrome is due to the frequent presence of enlarged ovaries, with stroma hypertrophy and multiple cysts on the periphery of the cortex.²

It also interferes with the patients' metabolism, causing them to frequently manifest hyperinsulinism, insulin resistance, metabolic syndrome, obesity, abnormal lipid profile predisposition to type 2 diabetes and cardiovascular disease.³

The literature points out that around 50% of women with the syndrome are obese. A small reduction in weight (5%) is able to improve the hyperandrogenism and the anovulation pattern present in patients with this syndrome. Thus, the assessment of the nutritional status and food consumption of patients with PCOS becomes an important tool to guide nutritional intervention strategies.⁴

According to the articles studied, the diagnosis is made by analyzing the patient's history, clinical examination and laboratory tests. In patients who test positive for PCOS, tests usually show serum LH concentrations that are usually high and FSH normal or low.⁵

Given the above, this study aimed to investigate the importance of healthy eating associated with physical activity, in helping to treat polycystic ovary syndrome (PCOS).

Method

It is an integrative review, which is a method that summarizes the results in a systematic, orderly and comprehensive way.²⁰ The following databases were used: Scielo, Lilacs e Bireme.

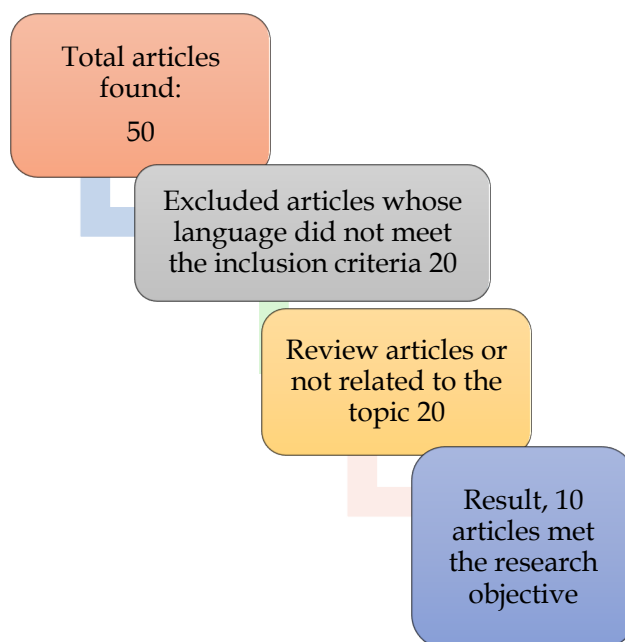
Articles in Portuguese and published in the period from 2000 to 2020 were used, which addressed the theme under study, using the following keywords: polycystic ovary syndrome, quality of life, obesity, nutritional status, physical activity.

With the data of each study, a table with the main variables was extracted and elaborated to analyze the profile of the collected articles, with the following approach, the importance of healthy eating associated with the practice of physical activities, in helping the treatment against ovarian syndrome polycystic (PCOS).

According to the flowchart below, 50 articles were filtered by the descriptors, following the inclusion criteria, of which 20 articles were excluded because they did not meet the inclusion criteria. As a result of the research, only

10 articles met the inclusion criteria, and were part of the theoretical basis that guided the development of the work.

Flowchart I:



Demonstrative flowchart of the bibliographic analysis process. Source: author (2020)

Results e Discussion

After reading the articles in full, the table below was prepared, with information on the title, authors, year of publication, objectives and summary of results. Based on LILACS, BIREME and SCIELO data on the importance of healthy eating associated with physical activity, in helping to treat polycystic ovary syndrome. Table 1 shows the main information extracted from the selected articles, regarding the year 2008 to 2019 articles were chosen, which best explains the purpose of this study, indicating the complications that patients with PCOS present, and demonstrating that the practice of physical activity combined with a good diet can improve the quality of life of these women.

Table 1- Information extracted from selected articles. 2020.

Title	Author	Year	Objective	Syntheses of results
Quality of life and psychosocial aspects of polycystic ovary syndrome: a qualitative and quantitative study	Moreira et. al.	2013	Assess the quality of life of women with ovarian syndrome polycystic (PCOS) and understand the experience lived by these women in the face of the symptoms they present.	PCOS compromises the quality of life of women, making them feel different from other women. Because of this, women with PCOS do not only need medical treatment for reproductive, aesthetic and metabolic repercussions, but also for multidisciplinary care
Obesity and change in structure blood pressure in young women with	Fernandes et. al.	2009	To compare the echographic factors of cardiovascular risk in obese and non-obese	Obesity in young carriers of SOMP are associated with higher blood pressure levels and arterial structure, represented by the

of the ovariesmicro policisticos			patients, with micro polycystic ovary syndrome (SOMP).	greater thickness intima-media of the carotid artery.
Lifestyle changes in ovarian syndrome polycystic: role of physical exercise and importance of multidisciplinary approach	Azevedo et. al.	2008	Analyze the specific role of the exercise and / or physical activity in changes in body composition, cardiovascular system, biochemical and hormonal plasma levels and reproductive function of women with PCOS.	The regular practice of physical exercise in women with PCOS have demonstrated relevant therapeutic importance, since the evidence indicates positive results of this modality in aspects related to the composition body, metabolic, cardiovascular and hormonal parameters, in addition to reproductive function.
Metabolic profile in women of different mass indexes with ovary syndrome polycystic	Sousa et al	2013	Characterize and Compare clinical variables, anthropometric and biochemical-metabolic measurements of patients with polycystic ovary syndrome (PCOS), stratified according to the body mass index (BMI).	The presence of RCV markers increased proportionally to the BMI, showing that the metabolic profile of obese women with PCOS is more unfavorable than non-obese women.
state nutrition and food consumption of patients with ovary syndrome polycystic	Calixto et Al	2012	Characterize the state nutritional and food consumption of patients with polycystic ovary syndrome (PCOS).	Patients diagnosed with PCOS have a high prevalence of obesity and nutritional inadequacies, denoting the importance of nutritional intervention measures as part of non-pharmacological treatment.
Lifestyle changes in ovarian syndrome polycystic: role of physical exercise and importance the multidisciplinary approach	Azevedo et al	2008	Analyze the specific role of exercise and / or physical activity in changes in body composition, cardiovascular system, biochemical and hormonal plasma levels and reproductive function of women with PCOS.	The regular practice of physical exercise in women with PCOS have demonstrated relevant therapeutic importance, since the evidence indicates results positives of this modality in aspects related to body composition, metabolic, cardiovascular and hormonal parameters, in addition to reproductive function.
Nutritional aspects and management feed on women with syndrome of the ovaries polycystic	Santos Et al	2019	Investigate how prevention and quality of life can benefit women with polycystic ovary syndrome.	A low-calorie, protein-rich diet with a low glycemic index can be beneficial for reducing body weight and, consequently, improving the changes associated with the syndrome.
Quality of life in women with Ovary Syndrome Polycystic	Almeida Et al	2019	To evaluate the quality of life (QOL) in women with Polycystic Ovary Syndrome (PCOS) assisted in two Basic Health Units (UBS) in	Women with PCOS have a heterogeneity of manifestations, being worrying their lack of self-awareness. The present study strengthens the idea that the approach of patients should

			city of Montes Claros, Minas Gerais.	aim at raising awareness, in addition to being multidisciplinary, within their particularities and subjectivity, taking into account the demands presented and their impacts on physical and emotional well-being.
Physical activity, habits food quality and life in women with ovary syndrome polycystic.	Fonseca. Aldrighi.	2012	Find a positive relationship between adequate diet and regular physical activity and a better quality of life in women with PCOS.	Although not differences between groups in terms of food intake and frequency of physical activity, the PCOS group that presented regular and moderate practice of physical activity, low WC and BMI <30 kg / m ² , reached a better QOL. Conclusion: SOP cause with higher prevalence obesity and increase of AC and moderate regular practice of physical activity was associated with better QOL, unlike food, which had no influence.
Ovary syndrome polycystic: the impact of information on the quality of life, an essay randomized clinical trial	Azevedo	2016	Assess the impact of access to information quality of life (QOL) of women with PCOS.	The QOL questionnaires didn't detect differences between primer and control groups, before and post intervention. The discussion carried out brings elements to contextualize the profile of the participants and service conditions found, raising points for reflection. In conclusion, health information, although relevant and necessary, was not able, in this study, to modify the quality of the assessed participants.

Polycystic ovary syndrome affects women of reproductive age and are generally asymptomatic, however, they may present some symptoms, such as menstrual irregularity, sleep disorder, pimples, irregular hair growth, usually on the back, abdomen, buttocks, (hirsutism), seborrhea, alopecia (hair loss), weight gain and ovarian cysts.⁶

The articles studied show that patients with PCOS present, in their exams, an increasing insulin resistance and compensatory hyperinsulinemia, although the laboratory determination of insulin resistance is not crucial for the diagnosis in clinical practice. There are studies that suspect that the syndrome is related to increased risk for cardiovascular disease.⁷

Whoever is affected by the polycystic ovary syndrome has their quality of life and psychological affected, therefore, the perception of body and health has distortions, leading the patient to the need for multidisciplinary care. In general, it is noted that the quality of life is affected in several aspects and the woman goes through a process of clear changes in her health.⁷

Patients with polycystic ovary syndrome were more likely to have risk factors for the development of cardiovascular diseases such as obesity and insufficient HDL-cholesterol, according to the theoretical bases used in the table above.⁸

They also point out that the carotid artery undergoes changes in its thickness. Experts point out that the practice of physical exercises and combined with a balanced diet, are essential in the treatment, therapeutically, it is essential, due to the effective results. Thus, not only is the treatment favorable, but, body, hormonal, cardiorespiratory metabolism, among other advantages.⁹⁻¹⁰

Patients diagnosed with the syndrome have considerably nutritional inadequacies, also requiring a multidisciplinary intervention to non-pharmacological treatment, as a nutritionist and psychologist. Research directs that the diet of the patient with PCOS must be rich in protein and low sugar, so that body weight is reduced.¹¹⁻¹²

The diagnosis must be as early as possible, so that the treatment can be started, because, with late diagnosis, complications are long-term, such as infertility, endometrial neoplasia, cancer and several problems in the body.¹³⁻¹⁴

As for medications, birth control pills are commonly prescribed. For hormonal balance, antidiabetic and antiandrogen medication may also be prescribed. According to the publications, the drug Metformin is used to regulate blood sugar levels, in some cases of PCOS. In cases where the patient is trying to get pregnant, medications are given to help ovulate.¹⁵⁻¹⁷

Therefore, Polycystic Ovary Syndrome, is a pathology that requires attention, due to the delicacy that is imposed, as it affects the woman's ovaries. And it has ways of minimizing symptoms and preventing long-term complications.¹⁸⁻¹⁹

Conclusion

We conclude that PCOS is associated with menstrual irregularity, sleep disorders, pimples, irregular hair growth, usually on the back and chest (hirsutism), seborrhea, alopecia (hair loss), weight gain and ovarian cysts. Diagnosis should be made as early as possible through analysis of the patient's history, clinical examination and laboratory tests.

Treatment should be started as soon as possible to avoid long-term complications such as infertility, endometrial cancer, cancer, insulin resistance, diabetes and various problems in the body.

We conclude that with the change in lifestyle, exercise and balanced diet, it complements the pharmacological treatment. With the practice of physical exercises and a balanced diet, the body will drop the circulating androgens, improve the lipid profile and decrease the peripheral resistance to insulin, however pharmacological treatment and monitoring with a multidisciplinary team is crucial.

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The interrelation of consumer accidents and health assistance: integrative review

A inter-relação do acidente de consumo e assistência à saúde: revisão integrativa

La interrelación de los accidentes del consumidor y la asistencia a la salud: revisión integradora

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REVISIA

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RESUMO

Objetivo: Analisar a produção científica acerca da inter-relação entre consumidor, produto e assistência à saúde. **Método:** Trata-se de uma Revisão Integrativa da Literatura realizada nas bibliotecas e bases de dados: BVS, PubMed, Scielo e Portal de Periódicos CAPES. Foram arrolados dez estudos após a aplicação dos descritores não controlados: “consumidor/ consumer”, “acidente / accident” combinados pelo operador booleano “AND” e dos respectivos critérios de inclusão e exclusão. **Resultados:** A análise dos estudos selecionados possibilitou que três categorias emergissem: Principais fatores que levam a ocorrência de acidentes de consumo; Métodos de prevenção dos acidentes de consumo; e, O papel da equipe de saúde na prevenção dos acidentes de consumo. **Conclusão:** Nesse viés, compreende-se a importância da articulação para estratégias de prevenção de acidentes de consumo, sobretudo, no que se refere ao promissor papel da equipe de saúde neste âmbito, no que tange à educação para prevenção e avaliações para aperfeiçoamento dos produtos.

Descritores: Assistência à Saúde, Equipe de Assistência ao Paciente, Defesa do consumidor, Perigos à Saúde por Substâncias, Produtos e Materiais.

ABSTRACT

Objective: to analyze the scientific production on the interrelationship between consumer, product and health. **Method:** this is an Integrative Literature Review carried out in the libraries and databases: VHL, PubMed, Scielo and Portal do Jornal CAPES. Two studies were found after application of two uncontrolled descriptors: “consumidor/ consumer”, “accidente/accident” combined with the recommended Boolean operator “AND” and two respective inclusion and exclusion criteria. **Results:** When analyzing two selected studies, it is possible that three categories may arise: Main factors that lead to the occurrence of consumption accidents, Methods for the prevention of two consumption accidents, Or the role of the health team in the prevention of two consumption accidents. **Conclusion:** In this regard, it is understood the importance of articulation for consumer accident prevention strategies, especially not referring to the promising role of the health team in this area, not involving prevention education and evaluations for the improvement of two products.

Descriptors: Delivery of Health Care, Patient Care Team, Consumer Advocacy, Health Danger Provoked by Substances, Products and Materials.

RESUMEN

Objetivo: Analizar la producción científica sobre la interrelación entre consumidor, producto y cuidado a la salud. **Método:** Se trata de una Revisión Integrativa de Literatura realizada en las bibliotecas y bases de datos: BVS, PubMed, Scielo y Portal de Periódicos CAPES. Fueron registrados diez estudios tras la aplicación de los descriptores no controlados: “consumidor/ consumer”, “accidente / accident”, combinados por el operador booleano recomendado “AND” y los respectivos criterios de inclusión y exclusión. **Resultados:** El análisis de los estudios seleccionados permitió emerger tres categorías: Principales factores que conducen a la ocurrencia de accidentes de consumo, Métodos de prevención de accidentes de consumo, El papel del equipo de salud en la prevención de accidentes de consumo. **Conclusión:** En este contexto, se comprende la importancia de la articulación para las estrategias de prevención de accidentes del consumo, especialmente en lo que respecta al rol promotor del equipo de salud en esta área, en lo que corresponda a la educación para la prevención y las evaluaciones para mejorar los productos.

Descritores: Prestación de Atención de Salud, Grupo de Atención al Paciente, Defensa del Consumidor, Peligros en la Salud por Sustancias, Productos y Materiales.

Introduction

Law No. 8,078, created in 1990, provides for consumer protection and rights, conceptualizing them as any natural or legal person who, in a consumer relationship, purchases or uses a certain service or product, defined as any good, movable or immovable and material or immaterial. Therefore, the National Consumer Relations Policy provides for the guarantee of these goods through adequate standards of quality, safety, durability and performance, determining that they should not pose risks to health or safety to consumers, except those recognized as harmful or dangerous.¹

Thus, consumer product is defined as the set of attributes that have the objective of providing satisfaction or benefits to the potential consumer.² However, even with notable advantages, the use of such products, commonly, translates into possible accidents or incidents that can bring consequences that pass between frustrations, lawsuits, material damages, injuries and deaths.³⁻⁴

This is due to the fact that consumer products have reached a level of complexity and difficulty not assimilated by their users.⁵ Furthermore, when designing goods that require greater security, only the use of strong and durable raw materials does not guarantee the integrity and user safety, requiring security systems that work properly.⁶

Furthermore, when an injury caused to the consumer results in an accident, be it from the service provided or the product provided, it is called a consumption accident, even if the individual has used or handled it according to the instructions for use.⁷

In Brazil, the National Institute of Metrology, Standardization and Industrial Quality (Inmetro) has been monitoring cases of consumer accidents since 2006. Initially, through the Consumer Accident Database and, from 2013, using the Inmetro System Consumer Accident Monitoring System (SINMAC). This system is open to the entire population and considers notifications of accidents and incidents that occurred in any environment, caused by insecurity of products and services or even the misuse of the consumer. Inmetro also makes public the statistics and reports of such events registered.⁷

Thus, based on the analysis carried out by Inmetro, it is possible to state that consumption accidents occur mostly in the Southeast of the country, mainly in the State of São Paulo. With regard to the age group, between 2006 and 2018, it is noted that the main age range with injured individuals was 31 to 40 years, although in 2019 there was a change, whose main age range was 0 to 3 years old.⁷

As for the level of education, between 2006 and 2015, accidents basically affected individuals with complete higher education. In the years 2016 and 2017, it is observed that the main level of education attained happens to be people with incomplete higher education. In 2019, the change was significant, of which the main population affected is the uneducated, that is, consumption accidents reached children and the notification was made by their parents or guardians.⁷

Regarding injuries resulting from accidents, it is possible to observe the predominance of burns and cuts in all surveys performed. As for the causative products, stoves, domestic stairs and toys are unanimous.⁷

The records made at SINMAC help the institute to identify products and services that pose more risks to the health and safety of the consumer. Thus, it allows the execution of actions, promoted by public entities, consumer protection

agencies and industries, with the objective of reducing the incidence of such accidents, in addition to alerting the population and different professional segments. Interventions arising from the perception of health problems may include the development of technical regulations, conformity assessment programs and educational actions with the population. And yet, estimate the impact of these events on the country's productivity and expenses on the National Health System.⁷

In the United States of America (USA), in 2012 alone, there were about 36 million consumer accidents, among which 35 thousand were fatal and represented expenses of around trillions of dollars for the country. Meanwhile, around 35 billion euros are spent in the UK each year on the same type of occasion. In Brazil, publications on the subject are still incipient, however, of the total recorded in 2019, 23% of the occasions requested medical care and 8% demanded a withdrawal from work activities, which may have important repercussions on the country's economy.⁷

Therefore, the present study aims to analyze the scientific production carried out so far on the interrelationship between consumers, products and health care.

Method

It is an integrative review, that is, it consists of the analysis of relevant research from secondary sources through a bibliographic survey that gathers knowledge about the phenomenon to be investigated.⁸ It constitutes a research technique with methodological, judicious and conscientious rigor that increases the credibility and depth of conclusions that can contribute to reflection on future studies. Thus, it also contributes to decision making that seeks to improve the recent evidence.⁸

In the present study, we chose to search databases with wide scientific dissemination in the national and international environment, using the Virtual Health Library (VHL), the United State National Library of Medicine (PubMed), Scientific Electronic Library Online (SciELO) and the CAPES Periodicals portal for greater reach with respect to publications at the national level.

In the digital search of scientific articles indexed in the cited databases, the following uncontrolled descriptors were used: "consumer" (consumer), "accident" (accident), combined by the Boolean operator "AND" as explained in Chart 1.

Chart 1 - Database search strategy (n = 2987). Brazil, 2020.

Database	Search Strategy	Results	Filtered	Selected	Repetition
BVS (DECS)	tw: (consumidor AND acidente) AND (year_cluster:[1974 TO 2020])	544	1	0	1
SciELO (DECS)	Consumer and accident	7	2	0	0
PubMed (Mesh)	Consumer and accident	1520	65	9	0

CAPES Journal Portal	Consumidor and acidente	916	5	1	1
Total	-	2987	73	10	2

Data collection was carried out in March 2020. The language (texts published in Portuguese and English), publication period (from 1974 to 2020) and its full availability (as published in Portuguese and English) were applied as filters within the databases. available in full). After selecting titles and abstracts, studies were included that responded and met the research objective and literature reviews, dissertations and theses were excluded.

After reading the articles in full, the final sample of studies was selected, in addition to extracting the information for the composition of the synoptic table, and the articles were then presented using the following variables: title, authors, basic training of researchers, year of publication, publication journal, method, database, conclusion and level of evidence according to the Grade Method.⁹ The studies were further categorized and presented by central themes: main factors that lead to the occurrence of consumer accidents; methods of preventing consumer accidents; and, the role of the health team in preventing consumption accidents.

Results

When associating the descriptors, 544 texts were found in the VHL, 1520 in PubMed, 7 in Scielo and 916 in the Portal de Periódicos Capes. At first, these studies were analyzed for title and summary, with ten studies from PubMed, one from the journal portal Capes and two from Scielo being evaluated. In the comparison of the results found in the searches between the databases, of the total of thirteen, none was repeated, thus leaving thirteen publications selected for full reading of the texts. And later, when analyzed as to its content in its entirety, ten studies were included, 9 from PubMed and 1 from the Capes Journal Portal, and are presented in the table below.

Chart 2 shows a predominance of international studies, mostly in PubMed (n = 9). With the publication period between 1974 and 2020.

Chart 2- Order, title, year of publication, publication periodical and database (n = 10). Brazil, 2020.

N	Title	Year	Journal	Database
I	<i>Consumer Input for Child Safety Programs</i>	1974	<i>The Journal of School Health</i>	PubMed
II	<i>Playground Safety</i>	1992	<i>Journal of Pediatric Health Care</i>	PubMed
III	<i>A randomized trial of an intervention to prevent lawnmower injuries in children</i>	1998	<i>Patient Education and Counseling</i>	PubMed
IV	<i>Unintentional Strangulation in Children: A Professional Approach to the Problem</i>	2001	<i>International Journal of Trauma Nursing</i>	PubMed

V	<i>Child Passenger Protection: Then and Now</i>	2002	<i>Journal of Emergency Nursing</i>	PubMed
VI	<i>Danger in the Toy Box</i>	2005	<i>Journal of Pediatric Health Care</i>	PubMed
VII	<i>Pediatric Injuries Related to Window Blinds, Shades, and Cords</i>	2017	<i>Pediatrics</i>	PubMed
VIII	<i>Acidentes Domésticos infantis: Percepção e Ações dos Profissionais de Saúde da Urgência e Emergência</i>	2017	<i>Serviço Social e Saúde</i>	CAPES
IX	<i>Study of Child-resistant Packaging Technologies to Prevent Children from Accidental Ingestion of Drugs in Japan</i>	2018	<i>Yakugaku Zasshi</i>	PubMed
X	<i>Korean Consumers Recognition of Risks Depending on the Provision of Safety Information for Chemical Products</i>	2020	<i>International Journal of Environmental Research and Public Health</i>	PubMed

Chart 3 shows a list of the authors of the articles covered and their basic education, with a predominance of nursing education (n = 6).

Chart 3- List of authors and their respective background (n = 10). Brazil, 2020.

N	Authors	Basic Education
I	MARTIN, G; HEIMSTRA, N.	Medicine and Psychology.
II	SWARTZZ, M.	
III	MAYER, J; ANDERSON, C; GABRIEL, K; SOWEID, R.	Nursing.
IV	DREW, C.	Nursing and Medicine.
V	KUSKA, T.	Nursing.
VI	STEPHENSON, M.	Nursing.
VII	ONDERS, B; KIM, E; CHOUNTHIRATH, T; HODGES, N; SMITH, G.	Medicine, Law and Mathematics.
VIII	AMARAL, A; PASCON, D; COSTA, J.	Social Work, Nursing and Medicine.
IX	MIZOGUCHI, M; MIURA G; OJIMAC F.	Pharmacy.
X	KWON, S; YOO, H; SONG, E.	Public administration.

Chart 4 shows the predominance of articles with the methodological design of opinion polls (n = 5) with a low level of evidence (n = 8), according to the Grade Method and the study's contributions to the theme that has elapsed.

Quadro 4 - Método, nível de evidência segundo o Método Grade e síntese do artigo (n=10). Brasil, 2020.

N	Method	Evidence Level	Study contributions
I	Opinion article	Very low	It brings the need to consider consumer participation in the planning of child safety programs.
II	Opinion article	Very low	Indicates safe practices for the installation and maintenance of children's playgrounds, taking into account, location, materials, surface, general hazards and periodic inspection.
III	Randomized Clinical Trial	High	It proves the effectiveness of educational intervention in a clinical setting, in relation to safe behaviors associated with consumer products.
IV	Opinion article	Very low	After evaluating the product and the accident, flaws were found, from the use of labels to the modification of the product by the consumer. In addition, trauma professionals should actively educate consumers and other professionals in order to reduce the occurrence of accidents.
V	Opinion article	Very low	It reports the modifications that were necessary in the product to make it safer after the perception of various accident notifications over the years.
VI	Opinion article	Very low	It mentions a series of safe behaviors that must be adopted by parents or guardians when dealing with the purchase, maintenance and supervision of children's toys.
VII	Prospective analytical documental study	Moderate	Mandatory safety rules must be developed to reduce cases of accidents related to window cables.
VII I	Crossectional and analytical study	Low	It shows that professionals provide assistance to domestic accidents seeking to minimize risks and injuries. However, it has some deficits.
IX	Crossectional and analytical study	Low	When designing measures that make products safer, the development characteristics of the population in question must be considered.
X	Crossectional and analytical study	Low	It states that the provision of information to consumers and their education positively affects their risk management related to products.

Discussion

Main factors that lead to the occurrence of consume accidents

The main consumption accidents reported in the studies were: unintentional strangulation with the use of armbands, injuries caused by the lawn mower, accidents caused by the child carrier, injuries related to curtains, cables and blinds, accidents associated with children's toys and accidental ingestion drugs. These occurred in Boston, St. Louis, Palos Heights, Columbus and Dallas, cities belonging to the United States of America (USA) and one in Japan.¹⁰⁻¹⁵

Studies in Palos Heights and Boston point to the influence of warnings and instructions present on the product as causing accidents. The investigation in the city of Illinois discusses positive changes in the occurrences of death and accidents related to child transport seats after the adoption of some methods on the labels, such as: use of the English language in a simple way; increasing the number of warning labels; and, choice of visible places for the positioning of these.¹² Meanwhile, the Massachusetts city survey reports that it provided care for a child who had been strangled by an armband and, after checking by the team, had no warnings about the dangers related to the product.¹¹

On the other hand, the research carried out in St. Louis conducted an interview prior to the intervention, in which it was found that parents did not follow the recommendations on the product's warning label, in which it was recommended not to use the product near children and clean the yard before starting the mowing process. Finally, these were considered the main factors related to the occurrence of accidents with lawn mowers.¹⁰ In this context, the study in Dallas concluded that part of the accidents related to toys were caused by parents or guardians who ignored the recommendations on the product label.¹³

Regarding the design of materials as a factor for the occurrence of accidents, according to a study carried out in Japan¹⁵, there was a one-eighth reduction in accidental drug intake by children after changes in the packaging of medicines and the introduction of child-resistant packaging. Research by Palos Heights demonstrates that child carrier seats have undergone various adaptations not only in their design, but also in fitting to cars, in order to reduce the number of complications related to the product and make them safer for consumers.¹²

Among other factors, we can also mention the change in the originality of the product on the part of consumers,¹⁴ the lack of supervision by child users¹⁶ and parents / guardians overestimate the children's ability regarding use.¹³

In addition to these, it is important to highlight the recognized influence of social determinants of health on the occurrence of accidents, since even accidents occurring without distinction of social class, the social and economic aspects of vulnerability translate into deficiency in access to information, lack of adequate infrastructure, scarcity of leisure environments and lack of quality education and public policies aimed at accident prevention.¹⁶

Consumer accident prevention methods

From the search for publications, it is possible to affirm that preventive behavior should be reinforced in childhood¹⁶ studies confirm that children are

victims of accidents more often¹⁰⁻¹⁸ and the damage caused can impair child development. According to the non-governmental organization (NGO) Safe Kids Worldwide, 90% of injuries resulting from accidents can be avoided with awareness of the population, education for prevention, adaptation of environments and legislation, in order to provide more safety.¹⁶

A study carried out in Texas¹³ evaluated the dangers related to toys and listed a series of preventive measures that should be adopted by parents / guardians when dealing with purchase and maintenance. Therefore, it is recommended that when purchasing a new toy, it is primarily necessary to verify that the product meets the recommendations of the safety standards developed by the consumer product safety committee and obtain recall information.

From that, you should not buy toys with small and removable parts that have ropes or the like, that are painted with toxic material, avoid electric toys and if necessary, add to the present protection and safety accessories, such as: helmet, knee pads and elbow pads.¹³

As for preventive behavior, caregivers should teach children how to use the product safely, read product instructions, be alert to notifications of collected toys, supervise play involving assembling toys and inspect new and old materials regularly.¹³ In addition to the added responsibility of the child's parents and guardians, the manufacturer's importance in providing safe merchandise is emphasized.¹⁰

During the analysis of the researches, it was possible to infer some behaviors, which, if adopted by manufacturing companies, may cause the sale of safer products, such as: placing warning labels on the products and increasing the quantity of these, which must occupy a place high visibility; the safety instruction for the installation; the recommendation of the installation location of the purchased products; the need for frequent inspection; the specification of general hazards; recommending the product to the intended group of users from age; whether there is accessibility for the disabled; the creation of "consumer friendly" labeling; the way of safe storage of products; the adoption of the use of security kits; and not least, the introduction of child-resistant packaging to prevent accidental ingestion of drugs.^{11-15, 18}

In addition, physical, social and cross-cultural characteristics must be assessed in the development of safety methods, as stated in a study carried out in Japan, in which it reports that there were barriers to the introduction of child-resistant packaging, which prevent accidental ingestion of drugs, unlike the USA. This is because there are differences between children of both nationalities that imply the effectiveness of such a preventive method.¹⁵

Therefore, it is essential that the warnings are elaborated about the dangers of the product and, mainly, become public so that the injuries stop occurring.¹¹ Since, from the provision of risk information, consumers start to interpret and identify the dangers through expert opinions and government announcements, therefore, the greater the knowledge that the population obtains, the greater the effect on perception risk factors and can be a predictive factor for the elaboration of public policies directed.¹⁹

In this way, when a consumer is in possession of safety information, his attitudes about safe behavior are altered, as well as his relationship with dangerous products and environmental and health risk management. It also

highlights the importance of providing response guidelines that act positively to increase rational safety behavior.¹⁹

Therefore, in the event of a case involving injury associated with a consumer product, it should be reported to the client's lawyers, the manufacturer, the community and health professionals. Such reports create informational data that can be used to identify trends and alert the population and professionals.¹¹

One of the alternatives is the creation of commissions to protect communities from complications related to consumer products, as was done in the USA with the Consumer Product Safety Commission (CPSC), which is an independent federal agency that seeks to reduce injuries, through surveys, issuing recalls, standardization, providing information and educating consumers. Through a relationship with media outlets, state and local governments, private organizations and individual consultations.¹¹

In this context, an example of its performance was the perception of a large number of accidents associated with blinds, curtains and window cables, listing this occurrence among the top five hazards found in the US residence and, from that, recalls were developed and mandatory safety standards for their use. Consequently, it was possible to conclude that the most effective primary prevention is related to the modification of the product and the environment.¹⁴

Regarding the education of the population as a prevention tool, it is possible to affirm that there is a need for investment in permanent education¹⁶, because consumer education directly affects their perception of risk, which in turn reflects on public health and the management of personal risk of the public.¹⁹ Therefore, it is necessary to advise parents, guardians and caregivers on the dangers related to the products.¹⁴

In time, for the development of security programs, it is essential that the developers of the educational project recognize the need for the consumer's contribution when planning and evaluating such programs. Alternatively, the sites have proven to be a highly effective resource.^{11,17}

In research carried out in Palos Heights and St. Louis, it is possible to understand the importance of educating the population and its influence on the adoption of safe behaviors. In the first study, carried out in the State of Illinois, it was found that many children died using child transport chairs, due to the educational classes offered to parents providing little or no information on how to transport children safely.¹²

Another example is the study carried out at the orthopedics outpatient clinic at Cardinal Glennon Children's Hospital, in St. Louis, Missouri, which aimed to conduct an educational intervention with parents and guardians warning about the correct use of the lawn mower. The aforementioned research concluded that the parents who participated in the intervention adopted safe behaviors in relation to the product, while the individuals who did not participate did not demonstrate any change in behavior, showing that educational actions in a clinical environment are effective.¹⁰

In this sense, systems such as urgent and emergency systems should also act in the prevention of injuries and in the protection of life, redirecting the focus of assistance focused only on the consequences of injuries to a comprehensive and integrated service, seeking the autonomy of its customers and the community.¹⁶

The role of the health team in preventing consumer accidents

A large number of studies analyzed show the importance of health professionals in preventing accidents related to consumer products.^{10,13-14} Thus, it is possible to conclude that these health workers must operate by minimizing injuries through a variety of interventions that complement each other.¹⁶

In this context, the nursing professional stands out, since, commonly, the occurrences of accidents are identified primarily in nursing offices, including, this environment is often shared with social workers, who also use it strategically to observe and interpret the conditions and patient's health needs.¹⁶ For example, a survey conducted by Miranda Stephenson found that pediatric nurses are in the best position to advise parents on choosing safe toys for their children.¹³

Among the studies analyzed, permanent education focused on the prevention of health problems and protection of life was pointed out as the main component that must be present in the assistance provided by health professionals¹⁶, since, usually, the adoption of a safe and preventive behavior to accidents it is not part of family life. Thus, it is expected that professionals understand the context of the occurrence of accidents and are able to identify risk factors, and should also be able to diagnose, supervise, forward and report the problems found.^{14,16}

In addition to these, professional practice must be extended in front of the health unit environment, as professionals must support public regulations and political efforts to make consumer products safer.¹³

It is also noteworthy that it is essential to work in an intersectoral way to obtain a positive prognosis, thus, the actions are developed based on co-responsibility between sectors, through various interventions. In view of this, the findings should be shared with the multiprofessional team, in order to outline a comprehensive, holistic, humanized and effective service to patients and their families.¹⁶

From the above, when performing the analysis of the articles, it is not possible to observe the due emphasis on the importance of the action of Nursing professionals in consumption accidents, nor conduct aimed at the performance of the nursing team. The study is limited due to the lack of social identification of the importance of the theme, little interest from the scientific community in researching the topic and the publication period is very extended, with no uniformity between publications in terms of time and space, despite the fact that consumer accidents continue to happen, even with technological advances in this area.

Conclusion

In addition to summarizing the research and evidence on the subject, this study made it possible to perceive the deficit of Brazilian productions in this regard, which does not make its impacts less important in the country, on the contrary, it reveals how invisible the problem is.

It is also noted the evident importance of the nursing professional in this type of accident, which is one of the first to care for or receive injured people,

whether in pre-hospital care or in risk classification in hospitals, in addition to influencing prevention through education in health.

With the acquisition of the knowledge exposed here and associated with consumption accidents, it becomes possible to think of intervention proposals aimed at protecting life, promoting health and preventing injuries.

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Impact of alcoholism on social and family life

Impacto do alcoolismo na vida social e familiar

Impacto del alcoholismo en la vida social y familiar

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REVISIA

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RESUMO

Objetivo: Destacar a relevância das implicações do alcoolismo na vida do indivíduo, tanto social como familiar. **Método:** Pesquisa do tipo exploratória, bibliográfica e descritiva. **Resultado:** O presente trabalho buscou conhecer a realidade do alcoolismo, no Brasil, em meio aos estudos de vários autores. Buscando destacar os motivos que impulsiona o uso do álcool, os danos e tratamentos possíveis. **Conclusão:** O alcoolismo pode ser determinado como um conjunto de problemas relacionados ao consumo excessivo de álcool por indivíduos que apresente uma maior probabilidade para o vício. Alimentando uma roda viva de adoecimento físico, adoecimento psicológico, adoecimento emocional e desagregação do sistema familiar.

Descritores: Alcoolismo; Indivíduo; Adoecimento.

ABSTRACT

Objective: To highlight the relevance of the implications of alcoholism in the individual's life, both social and family. **Method:** Exploratory, bibliographic and descriptive research. **Result:** The present work sought to know the reality of alcoholism in Brazil, in the midst of studies by several authors. Seeking to highlight the reasons that drive alcohol use, the possible damages and treatments. **Conclusion:** Alcoholism can be determined as a set of problems related to excessive alcohol consumption by individuals who are more likely to be addicted. Feeding a living wheel of physical illness, psychological illness, emotional illness and breakdown of the family system.

Descriptors: Alcoholism; Individual; Illness.

RESUMEN

Objetivo: Resaltar la relevancia de las implicaciones del alcoholismo en la vida del individuo, tanto social como familiar. **Método:** Investigación exploratoria, bibliográfica y descriptiva. **Resultado:** El presente trabajo buscó conocer la realidad del alcoholismo en Brasil, en medio de estudios de varios autores. Buscando destacar los motivos que impulsan el consumo de alcohol, los posibles daños y tratamientos. **Conclusión:** El alcoholismo se puede determinar como un conjunto de problemas relacionados con el consumo excesivo de alcohol por parte de individuos que tienen más probabilidades de ser adictos. Alimentando una rueda viva de enfermedad física, enfermedad psicológica, enfermedad emocional y ruptura del sistema familiar.

Descritores: Alcoolismo; Individual; Enfermedad.

Introduction

The present work represents the analysis and reflection about alcoholism and its impacts on social spheres. This is a reflection of excessive and prolonged alcohol consumption. Alcoholism can be classified as addiction to excessive intake of alcoholic beverages, within this framework it is possible to observe dependency, abstinence, abuse, intoxication, amnesic syndrome, hallucinatory dementia, mood delusions, sexual disorders, anxiety, sleep disorders, among other disorders.¹

Living with an alcohol addict is not an easy experience for family and friends, as problems affect everyone, eroding relationships. In addition to a physical health problem, it is also a social disease, and treatment should involve everyone.¹

It is a serious illness, both physically and psychologically, affecting the alcoholic and the people who live with him. Causing great emotional stress in their family and friends, in addition to the possibility of violence, mistreatment and fights.¹

According to the Ministry of Health, the constant use of alcohol causes physical and psychological dependence, turning the occasional user into an addict, which can lead to death from excessive consumption and even progressively weaken the body of those who use it. It is possible to verify that the magnitude of the problem and alcohol misuse, verified in the last decades, gained proportions so serious that it became a public health issue in the country. And this situation is reflected in the other segments of society, being proved through its relationship with social problems, among them: traffic and work accidents, domestic violence and the growth of crime.¹

Among other pathologies, alcoholism stands out as a serious maladjustment in the intrafamily context, impairing psychosocial development, affecting children, young people and adults. It is a disease that affects the addict's physical, emotional and behavior.²

The social relevance of this research is justified in the search for an in-depth study on the proposed theme, due to its serious harmful effects within the social spheres.

The study is a bibliographic search conducted with data collection in sources such as articles, books and internet sites that address the proposed theme. And it was composed as a literature review that brings main concepts of alcoholism, based on the theoretical survey.

Method

To carry out this research, information available in books, articles and online sites was used, such as the Ministry of Health, World Health Organization, Medscape, Pubmed, SciELO and others.

Composing an exploratory, bibliographic and descriptive research. Having as main objective the improvement of the proposed theme through the reading of concrete data, making possible the analysis of the scientific production on alcoholism.

However, 32 authors were consulted and 24 had their studies and contributions described in the work.

The bibliographical research deepened the conceptual theorist with information that contextualized the research objective. In order to describe and study certain phenomena, however, to determine them it is necessary that the subject addressed is sufficiently described and detailed.

Results and Discussion

Alcohol, considered a legal drug, is a substance that slowly becomes dangerous and very harmful to the body. Constant consumption is addictive and is responsible for damage to health, accidents, social problems, among others.

The present work sought to know the reality of alcoholism in Brazil, in the midst of studies by several authors. Seeking to highlight the reasons that drive alcohol use, the possible damages and treatments.

The results were presented here considering the main categories pointed out in the analyzed studies, during the systematic review, highlighting those of greater relevance to the presented proposal.

The trigger for the beginning of consumption, the growth in use, treatments and the relevance of family support, were relevant topics for the work. It was also identified, through studies, as risk factors associated with early alcohol use, male gender and parents' divorce. The difference in personality (anxiety, depression, guilt, shyness, bad mood, aggressiveness, self-centeredness, impulsivity and drama) and environments (places where access to drinking is facilitated) as a stimulus for alcoholism.

It is interesting to highlight another study, which are the significant relationships between family relationships and alcohol use. There are other articles that mention the possible contribution of work to alcohol abuse or that the problem would be in the form of selecting / hiring workers for activities with high occupational risk, such as work stress, lack of recognition, violence, moral harassment, break in the work link -social life, overload, time pressure, unfavorable thermal conditions, absence of labor guarantees and other elements more related to work organization and socio-professional relations.²

Whether personal, medical, social, professional or family problems, the motivators for excessive alcohol consumption is unanimous to say that the use of alcohol in the survival and coping with social ills only tends to worsen the already existing situation.

Alcoholism is a problem that causes several losses and all orders. The individual who loses control when consuming alcohol tends to be excluded from social relationships, social space, as well as their workplace.³

The act of drinking can be seen as a social phenomenon, marked by learning and purposes. This is the opposite of research of a hegemonic character: focus on moralism, centrality in the scope of the pathological, the disease, the deviant, the lack of character, the individual. This set of studies is far from debating the role of society in the production of the act of drinking and focusing on the spaces that allow to move through this discussion, listed as the work itself and its requirements, the values, the social acts, the cultural inscriptions that are relate to drinking in its different modes and intensities.³

The treatments have not evolved many in recent years, but they offer great support to the individual who really wants to get rid of alcohol dependence.

Alcoholism: illness or weakness

Alcohol is widely used for its disinhibiting, antidepressant and easily accessible effects, making it one of the biggest public health problems that affect men and women at all ages and social classes, alcoholism, described by her associated with the strong desire to drinking and difficulty controlling consumption and insistent use despite the negative consequences that alcohol produces.⁴

When we reflect on the concept of the word drug, we immediately think of cocaine, heroin, marijuana, crack cocaine, among many other names that are given to existing legal and illegal drugs. We do not deport ourselves to alcohol as one of the most used and most harmful drugs to human beings today, since alcohol has been consumed since the most primitive times of our society and is seen as a complement to moments of joy and celebration, where people people come together to celebrate and celebrate life.⁴

Alcohol is defined as a very powerful drug that kills more people than all drugs combined, with the exception of cigarettes alone, because it is a legal drug and easily accessible to all layers of society due to its low value, it makes victims in all social classes.⁵

Alcohol addicts and their families are subject to experiencing some of the expressions of the social issue. Among these expressions, unemployment, sub-housing, malnutrition, precarious health services and other problems that affect, especially, the low-income population, on which social inequalities are most perverse, stand out.⁵

Ingesting alcohol in an abusive manner is related to causing various pathologies and disorders such as mental disorders in general, liver cirrhosis, pancreatitis, cancer, in addition to being associated with the occurrence of traffic accidents and homicides. Approximately 5.2 million deaths from accidents occur every year, of these, 1.8 million are associated with alcohol consumption.⁶

From the health point of view, alcoholism is a chronic disease, with behavioral and socioeconomic aspects, characterized by compulsive alcohol consumption, in which the user becomes progressively tolerant to the intoxication produced by the drug and develops signs and symptoms of withdrawal, when the same is withdrawn.⁶

In this context, the various forms of resistance and coping with the situation of alcohol dependence arise, through the search for public policies, specific programs of attention to the alcoholic and his family and, also, access to the social support network. The constant use of alcohol causes physical and psychological dependence, turning the occasional user into an addict, which can lead to death from excessive consumption and even progressively weaken the body of the user.⁷

Scholars believe that the action of alcohol in the central system is due to the fact that alcohol enters the brain quickly with countless effects on neurons, that is, a good part of the neurochemical systems, causing changes in the serotonergic neurotransmitters, in the dopaminergics in the VTA and in the nucleus. accumulation and the release of opioid peptides in the central nervous system that cause its pleasurable effects.⁸

Exposure to alcohol in a short period of time reduces the electrical impulses of neurons determining the depression of brain and nerve activity, as a consequence of increased GABA activity at GABA-ergic receptors since it decreases the action of excitatory amino acids, for example, glutamate at the level of NMDA receptors.⁸

The assumed consumption of substances with psychotropic action has evolved according to the civilizational trajectories and that, although in the first phase it acts on mental functioning (causing euphoria, stimulating, anesthetizing, intoxicating), in a second phase, it induces dependence and tolerance, presenting high immediate biopsychosocial risks.⁹

For years alcoholism was considered for a long time as a "moral problem", with the passage of time, he found that it is a pathology and one of the assumptions is that addicts would have different genetic and personality characteristics than the rest of the population. possible a biotype stands out.⁹

In 1967, at the 8th World Health Conference, alcoholism was incorporated into the International Classification of Diseases. On this occasion, the World Health Organization classified drugs by their degree of dangerousness, using criteria such as the greater or lesser toxic danger, the greater or lesser capacity to provoke physical dependence and the greater or lesser speed in which this dependence is established. Based on these criteria, drugs are classified as: Group 1: opium and derivatives (for example, morphine and heroin); Group 2: barbiturates and alcohol; Group 3: cocaine and amphetamines; Group 4: LSD, cannabinoids, tobacco, among others.¹⁰

Currently alcoholism is conceptually described in the Tenth Revision of the International Classification of Diseases (ICD-10) and in the fourth revision of the Diagnostic and Statistical Manual of Mental Disorders of the North American Psychiatric Association (DSM-IV) as an alcohol dependence syndrome. Thus, the definition of alcoholism adopted in ICD-10 and DSM-IV also started to favor consumption patterns and not only the results of excessive alcohol intake.¹⁰

The magnitude of the problem of alcohol misuse, verified in recent decades, has grown to such a serious extent that it is now a public health issue in the country. In addition, this context is also reflected in other segments of society due to its proven relationship with social problems, such as: traffic and work accidents, domestic violence and increased crime.¹¹

Alcoholism depends on social, economic and cultural variables. It involves a multi-determined continuum of drinking-related behaviors. Problems related to alcohol result not only from the exaggeration of the amount consumed, but from the lack of control over the form of consumption (when, where and how much). Alcohol abuse leads to addiction, depression and personality instability.¹¹

A person consumes alcohol abusively for several reasons, such as the need for alcohol to accept reality, the tendency to shirk responsibilities, anguish, aggressiveness, poor resistance to frustrations and tensions; the level of conscience tends to lead to impulsive, negligent behavior towards the family, frequent job losses, financial problems, aggressiveness towards society. There may be some genetic contribution that facilitates alcohol dependence, but cultural factors are undoubtedly the most important.¹²

Alcoholism is the claim to infinite enjoyment. The alcoholic seeks the possibility of enjoyment and wants to be recognized and respected as a subject. It is someone who is not afraid, not facing barriers or limits, is willing to go to the end in search of pleasure.¹²

This behavior comes at a price, comparing the brain of an alcoholic dependent to that of a healthy person, that of an alcoholic has atrophy, because neurons are progressively destroyed, the fact can be observed by the dilation of the ventricles, by the narrowing of the corpus callosum (the main connection between the two hemispheres) and the reduction of the hippocampus (memory region).¹²

There are several individual and social consequences of alcohol consumption, in addition to drunkenness, as its abusive consumption is responsible for many deaths and disabilities (due to accidents and illnesses it causes), lack of productivity at work and family and criminal violence. All of these factors, coupled with the fact of causing great physical and psychological dependence and being one of the few substances that cause irreversible injuries.¹³

The situations of violence, crime, traffic accidents caused by drunk individuals leave no doubt that alcoholism is also a disease whose social symptoms must be alerted and prevented. This often leaves room for society to treat the individual in a way that excludes him from his environment, which makes the alcoholic having difficulties to recognize himself as sick.¹³

According to the International standard, the harmful use of alcohol is considered, when its weekly consumption for adults is 21 doses for men and 14 doses for women. One serving is equivalent to a glass of wine, a can of beer or two fingers of whiskey.

As the drug continues to be ingested and its blood concentration increases, the brain begins to show signs of deterioration, causing imbalance, altered cognitive ability, increasing difficulty in articulating words, lack of motor coordination, slow and irregular eye movements, double vision, facial flushing and tachycardia.¹³

The thought is disconnected and the perception of reality is disorganized. Later on, lethargy, decreased heart rate, drop in blood pressure, respiratory depression and vomiting still appear, which can eventually be sucked in and reach the lungs causing pneumonia or other dangerous side effects. To conclude, stupor and coma, severe respiratory depression, hypotension and death can happen. And all of these symptoms can lead to numerous claims.¹⁴

Statistics from the Brazilian Alcohol and Drug Association (ABEAD) report that the alcohol and driving association is responsible for 75% of traffic accidents with deaths; 39% of police occurrences, and constitutes the 3rd cause of absenteeism, accounting for 40% of psychiatric consultations in Brazil.¹⁴

In addition, data from the Ministry of Health of Brazil, demonstrate that Mental Disorders are the 4th cause of hospitalization, being supplanted only by admissions for respiratory, circulatory and childbirth problems, with alcohol being the main reason in 20.6% of the cases.¹

Alcoholism within a family brings a great deal of stress, quickly becoming a disease for the entire family group, as Jackson postulated in 1954. This stress is responsible for the disruption of stability that, in turn, leads the family to a exaggerated attachment to the known, chronicling attitudes based on regulatory mechanisms.¹⁵

What is certain is that there is still no certainty as to what makes a person dependent on alcohol, as it is a personal disorder of those who acquire it, because what is noticeable is that each person reacts differently and for different reasons, contexts and circumstances.¹⁵

Alcohol-related disorders

Alcoholism is in fact considered a disease, whose WHO (World Health Organization) determines it as drug addiction, that is, it results in the dependence that the drug causes to the organism, when it is administered frequently, thus generating a compulsion for the substance in a continuous, with the purpose of feeling the psychic effects or even to avoid any discomfort of SAA (Alcohol Abstinence Syndrome), when the alcoholic discontinues the use of alcohol.¹⁵

We also have a group that does not have the typical characteristics of an alcoholic person (such as difficulties to walk and speak), which makes the diagnosis of the continued use of alcohol later.¹⁶

Tolerance is characterized by a resistance that the body presents due to the adaptation in the continuous use of alcohol in the same dose, in which the CNS (Central Nervous System) becomes tolerable to a routine of alcoholic level in the bloodstream. Clinically, it is represented by individuals who can use the drink without showing signs of drunkenness, differently from those who have undesirable effects, that is, not tolerant.¹⁶

According to data, a large number of individuals who have the Dependency Syndrome have CNS (Central Nervous System) disorders, such as epilepsy and multiple sclerosis. And justify the use of alcohol as a palliative for disorders caused by disorders.¹⁶

In the cardiovascular system, the chronic use of alcoholic beverages is considered a factor responsible for the systolic and diastolic elevation of the pressure due to the increase in blood vessel irrigation, causing hypertension, cardiac arrhythmia and myocardiopathy.¹⁷

Already in the skeletal muscles of alcoholics or not, the effect is due to the acute or chronic use of alcohol, causing it to have less muscle strength, caused by a decrease in the synthesis of muscle proteins, characterizing an atrophy in the fibers of the muscles.¹⁷

In the gastrointestinal system and in the liver it has been proven through studies that long-term ethanol ingestion, as in chronic use, can cause major problems, including gastritis, due to increased gastric secretions, which can lead to gastroesophageal reflux. The condition can be reversed with the use of proton pump inhibitors and the removal of alcohol.¹⁷

Liver disease is the disease diagnosed by alcohol abuse, mainly of chronic use, leading to liver impairment, which can cause alcoholic liver steatosis and, consequently, the condition may evolve causing cirrhosis, making the organ of its function impossible, requiring liver transplantation.¹⁸

In the Central Nervous System (CNS) the action of alcohol although it has an anxiolytic action, as well as barbiturates and benzodiazepines, and its effects cause depression. This action occurs simultaneously as the blood concentration increases, causing everything from pleasurable sensations to a state of intoxication or intoxication.¹⁸

Dependence also presents dissociative disorders in the family environment where the individual is inserted. When the subject involves alcohol and family, it requires special care due to the fragility that exists in the union of the members caused by the emotional distance of the dependent. This characterizes the destruction of the home, where the family, for not knowing how to deal with the situation, ignores the alcoholic or even become victims of violence. In this situation, care must be focused not only on the alcoholic, but on the whole family.¹⁸

The addiction to alcohol affects a greater number of male individuals in which the partner tries to maintain the union with the partner for reasons of the family constitution, involving the children, the moments of joy, the simple religious conception of the union, or even for being a woman and seeking to maintain dignity before society. However, children are in fact members of the family of great target for alcoholism due to living in an unstructured home, such as the separation of the parents or the simple fact of living with the alcoholic father.¹⁹

The failure that alcohol causes to the individual leaves him unable to perform his role in society, whether in the family environment, at work, in financial life and in traffic, making it tragic, not only for the dependent, but for everyone who lives around you.¹⁹

For the drinker to maintain the use of the drink it is necessary a high expense, where he begins to have a financial lack of control. Thereafter, other complications arise more easily, such as the loan made by the family to pay the debts, because they are no longer able to afford the expenses. All of this leads to an imbalance, involving everyone around you, and dishonesty is a factor resulting from the use of alcohol, which causes the loss of work, that is, a total social imbalance.¹⁹

In Brazil, research shows that about 70% of adults develop dependence on the drug due to the resistance that the body attributes to repeated use in the same amount of alcohol. It is then determined, a triggering factor for the chronic use of the substance, which leads to a compulsive act of drinking, which is caused by a physical dependence, which results in an Alcohol Withdrawal Syndrome (SAA), in which it is diagnosed by signs and symptoms specific.²⁰

Studies report that SAA (Alcohol Withdrawal Syndrome) starts 6 hours after the withdrawal or decrease of alcohol in dependent individuals, causing a clinical picture due to insomnia, tremors, nausea, restlessness, to more serious complications, such as seizures in approximately 5% of patients, and delirium tremens (DT), characterized by mental confusion that occurs between 72 to 96 hours after alcohol withdrawal, due to motor and autonomic dysfunction. The mortality rate in TD is 2 to 25%.²⁰

Treatment of alcoholism

Among the most common ways to treat alcoholism are:

Detoxification, implies abstinence from alcohol to eliminate it completely from the body. It takes approximately four to seven days (depending on the individual's body). People who undergo detoxification typically take medications to prevent delusions and other withdrawal symptoms.²⁰

Counseling: counseling and therapy sessions that can be individual or group, with the aim of helping the alcoholic recover, identifying situations in which people may be tempted to drink and finding ways to get around this desire. One of the best known recovery programs is Alcoholics Anonymous (AA). A 12-step program that guides recovering alcoholics.²¹

Family help: the dependent needs to have a motivation that makes him go against his impulses, in this context the family must show support and eliminate factors that encourage or favor alcohol consumption from the context.²¹

Medications: some medications are administered to prevent relapse (according to the doctor and the patient's condition). Some reduce the urge to drink, blocking regions of the brain that take pleasure when alcohol is consumed; others cause a severe physical reaction to alcohol, which includes nausea, vomiting and headaches.²¹

Pharmacotherapy is a method used with the main objectives of treating alcoholic patients in a way that reintegrates into their social life, being a means in which it will depend on self-esteem and personal dedication. This is called SAA (Alcohol Withdrawal Syndrome) through drugs that can be associated with support groups called Alcoholics Anonymous. Among the drugs most used to treat alcoholism, disulfiram, acamprosate and naltrexone stand out.²²

The use of disulfiram differs from other drugs for the treatment of alcoholism, as it is considered to be of ancient use and was used without the consent of the alcoholic individual, leading to a decrease in its use due to having several side effects, when associated with alcohol. The cause of this is its aversive effect, due to the inhibition of the enzyme aldehyde dehydrogenase, which then leads to an increase in the concentration of acetaldehyde in the bloodstream 5 to 10 times, causing undesirable symptoms from mild to severe.²²

Undesirable manifestations after alcohol use usually take 15 to 30 minutes to appear, causing tachycardia, shortness of breath, lowering blood pressure and other effects, in which it is necessary to inform the individual of the side reactions that occur if it is associated with ethanol, that is, the patient must remain abstinent for at least 12 hours in order to have a good response to treatment. The administered dose of the drug is 500mg a day, and then it can vary from 125 to 500mg / day.²²

Acamprosate is a drug that has the action of blocking the neurotransmitter glutamate, produced in greater quantities due to the chronic use of alcohol. Acamprosate has an effect similar to that of GABA, as it acts by decreasing the excitatory activity of the CNS when alcoholic abstinence occurs. In a way, it is well tolerated by the body and the most common adverse reaction found is diarrhea. The treatment with this drug is done through 333mg tablets being administered 3 times a day.²³

Naltrexone is a drug approved in 1994 for the treatment of alcoholism, and its main objective is to inhibit opioid receptors so that the sensation of pleasure reinforced by alcohol, especially for chronic use, caused by the increase in dopamine is reduced. It is a medication that acts directly by antagonizing these receptors, making the desire to consume alcoholic beverages lessen, thereby facilitating the prevention of relapses, by increasing the time of abstinence. Even ingesting alcohol, the person is able to control the drug due to the effect of Naltrexone.²³

The treatment of the disease is done by administering a daily dose of 50mg, emphasizing that several studies report the association of drug treatment with psychosocial therapy for a better result. It may have side effects such as nausea, especially in women. Great attention is needed on the association of naltrexone with disulfiram, as both are potentially hepatotoxic.²³

In pharmacological treatment, during medication dispensing, the risks that may occur, when associated with the medication with alcohol, must be informed, advising its correct use in order to obtain a good result. It is also important to guide the family of risks during treatment, as the individual may have relapses, and understanding of the family is essential to help them overcome.²⁴

The laboratory diagnosis, required by physicians, complements the evaluation when he suspects alcohol dependence, requesting some tests in order to adequately investigate the organic changes resulting from the disease that leads to SAA (Alcohol Abstinence Syndrome). Examinations of mean corpuscular volume (CMV) and levels of liver enzymes are requested through the hepatogram for the measurement of TGO, TGP and GGT, which are of importance for the diagnosis of alcoholism.²⁴

Conclusion

Alcoholism can be determined as a set of problems related to excessive alcohol consumption because it contains a greater probability for addiction. Feeding a living wheel of physical illness, psychological illness, emotional illness and breakdown of the family system.

Previously considered a stimulus of joy, today it is seen as a stimulus for aggression, discord, pain, and is responsible for the breaking of family, friendship and work ties.

The present work sought through the study of information based on reflective analysis of the impacts of alcohol on the personal and social life of the individual dependent on this substance.

With the elaboration of this work, a wide analysis and discussion of the data found provided subsidies for both lay people and technicians who want to deepen the proposed theme, seeking alternatives to reduce the risks to which they are subject and involved.

Among the most affected sectors, we can highlight the family environment. How to live harmoniously, how to form balanced citizens, how to contribute to a society under construction, if the human being himself is destroying himself day by day.

It is necessary to invest in clarification campaigns, in treatments, in re-education to stop the growing number of alcoholics.

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Down syndrome and associated pathologies: a narrative review of the literature

Síndrome de Down e patologias associadas: uma revisão narrativa da literatura

Síndrome de Down y patologías asociadas: una revisión narrativa de la literatura

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RESUMO

Objetivo: identificar por meio de uma revisão narrativa de literatura as patologias mais recorrentes em indivíduos com Síndrome de Down. **Método:** trata-se de uma revisão narrativa. Realizou-se um levantamento da literatura no Portal Pubmed e nas bases de dados de publicações científicas indexadas: *Scientific Electronic Library Online* (Scielo), *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), *Base de Dados de Enfermagem* (BDENF) e *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) e Portal PubMed, usando os descritores "Down's syndrome", "Pathologies", "Trisomy 21", "Intellectual Disability", "Clinical manifestations". **Resultados:** foram encontrados 696 artigos, dos quais 24 foram analisados na íntegra, destes, foram selecionados 9 artigos que compuseram a amostra desta revisão. A maioria dos estudos selecionados mensurou as características fenotípicas peculiares nos indivíduos com essa anomalia, a saber: olhos oblíquos, orelhas baixas, braquidactilia, hipotonia, baixa estatura, braquicefalia, fissuras oblíquas na pálpebra, epicanto, manchas de *Brushfield* na íris, dentre outras. **Conclusão:** torna-se necessária uma atenção e acompanhamento regular dos profissionais de saúde acerca das patologias malignas, doenças autoimunes e inflamatórias que acometem as pessoas com SD.

Descritores: Síndrome de Down; Patologias; Trissomia 21; Deficiência Intelectual; Manifestações Clínicas.

ABSTRACT

Objective: to identify through a narrative literature review the most recurrent pathologies in individuals with Down syndrome. **Method:** this is a narrative review. A survey of literature was conducted on the Pubmed Portal and in the databases of indexed scientific publications: *Scientific Electronic Library Online* (Scielo), *Latin American and Caribbean Literature on Health Sciences* (LILACS), *Nursing Database* (BDENF) and *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) and PubMed Portal, using the descriptors "Down's syndrome", "Pathologies", "Trisomy 21", "Intellectual Disability", "Clinical manifestations". **Results:** 696 articles were found, of which 24 were fully analyzed, of which 9 articles were selected that comprised the sample of this review. Most of the selected studies measured the peculiar phenotypic characteristics in individuals with this anomaly, namely: oblique eyes, low ears, brachydactyly, hypotonia, short stature, brachycephaly, oblique clefts in the eyelid, epicant, Brushfield spots on the iris, among others. **Conclusion:** it is necessary to have regular attention and follow-up of health professionals about malignant pathologies, autoimmune and inflammatory diseases that affect people with DS.

Descriptors: Down syndrome; Pathologies; Trisomy 21; Intellectual Disability; Clinical Manifestations.

RESUMEN

Objetivo: identificar a través de una literatura narrativa revisar las patologías más recurrentes en individuos con síndrome de Down. **Método:** esta es una revisión narrativa. Una encuesta de literatura se realizó en el Portal Pubmed y en las bases de datos de publicaciones científicas indexadas: *Biblioteca Electrónica Científica en Línea* (Scielo), *Literatura Latinoamericana y del Caribe en Ciencias de la Salud* (LILACS), *Base de Datos de Enfermería* (BDENF) e *Índice Acumulativo de Literatura de Enfermería y Salud Aliada* (CINAHL) y PubMed Portal, utilizando los descriptores "Síndrome de Down", "Patologías", "Trisomy 21", "Discapacidad Intelectual", "Manifestaciones clínicas". **Resultados:** se encontraron 696 artículos, de los cuales 24 fueron analizados en su totalidad, de los cuales se seleccionaron 9 artículos que comprendían la muestra de este examen. La mayoría de los estudios seleccionados midieron las peculiares características fenotípicas en individuos con esta anomalía, a saber: ojos oblicuos, orejas bajas, braquidactilia, hipotonía, estatura baja, braquicefalia, hendiduras oblicuas en el párpado, epicante, manchas de *Brushfield* en el iris, entre otros. **Conclusión:** es necesario tener atención regular y seguimiento de los profesionales de la salud sobre patologías malignas, enfermedades autoinmunes e inflamatorias que afectan a las personas con DS.

Descriptores: Síndrome de Down; Patologías; Trisomía 21; Discapacidad Intelectual; Manifestaciones clínicas.

Introduction

Down Syndrome (DS) is a numerical genetic alteration, which occurs during cell division, characterized by the addition of a chromosome in the chromosome pair 21 of human DNA, thus forming trisomy 21. This is due to failure to separate genetic material during egg preparation or, more rarely, during spermatogenesis. It is a syndrome where its occurrence is associated with a number of factors, such as: maternal age and genetic mosaicism – where the mother presents the characteristic trisomy genotype in part of her cells.¹

This pathology has a unique and unmistakable phenotype. Individuals present with flattened face, oblique eyes with epicanthic fold, insertion of the lower ears, lingual protusion, muscular hypotonia, ligament laxity, brachydactyly (short fingers) and variable cognitive deficits.²⁻⁴

Trisomy is responsible for some basic pathologies, defined strictly by phenotypic expressions, among them, some more recurrent (such as hypotonia, heart disease⁶, and vision disorders⁷: myopia, hyperopia and astigmatism).

In addition to these deleterious effects, this syndrome causes individuals greater susceptibility to respiratory diseases¹⁰, especially low immunity directly linked to the genetic anomaly.¹⁰

Corroborating, an international study pointed out that a large number of people with DS develop neurological diseases such as Alzheimer's throughout their lives, precisely because of the characteristic of trisomy that causes an overexpression of the amyloid precursor protein (APP) - the sea coded by APP, due to the location of this extra gene in the pair of chromosomes 21.¹¹

In a randomized clinical trial conducted in Argentina¹⁴, it was observed that individuals with DS present, mostly, dental and stomatognathic disorders. The authors showed that the various alterations in breathing and swallowing have a significant impact on the development of the stomatognathic system, and it is essential to follow up professionals in the field of speech therapy, orthopedics and orthodontics.¹⁴

However, to evidence these pathologies associated with DS in a literature review is relevant, as it provides support for the elaboration of actions and acquisition of knowledge directed to the collectivity and health teams in order to minimize the problems resulting from disorders associated with trisomy, promoting a better quality of life to individuals with these genetic characteristics.

In the light of these findings, this study was based on the following review question: "what are the main pathologies associated with DS described in the literature?" In this sense, the aim of the study was to identify through a narrative review the most recurrent pathologies in individuals with DS.

Method

It is a narrative literature review, according to Rother¹⁵, this modality of review aims to elucidate the development or describe the "state of the art" of a given thematic approach, from a theoretical perspective. Although it does not strictly characterize the criteria used in the evaluation and selection of primary studies, this type of literature review promotes knowledge about a specific object of study.¹⁵ In view of this conjuncture, narrative review is structured based on stages, which will be presented in sequence⁸:

Step I: "elaboration of the guide question". The definition of the question that will guide the review determines which studies will be included, the means adopted for identification and the information collected from each selected record.⁸

Step II: "search or sampling in the literature". This stage is intrinsically related to the previous phase. The search in the databases should include the search in electronic databases, manual search in journals, through references described in the selected studies and the use of unpublished material (gray literature). The determination of inclusion and exclusion criteria should be carried out in accordance with the review question, considering the participants, any interventions and the results presented in the selected articles.⁸

Step III: "data collection". To extract data from selected articles, the following includes: definition of the study sample, method, sample calculation, measurement of variables and concepts used in manuscripts.⁸

Step IV: the "critical analysis of the included studies" is similar to the analysis of the data from the field research. At this stage, the articles are analyzed and the selection is made after careful reading of the titles and abstracts, excluding those records that did not meet the proposed theme. Finally, the text is read in its entirety for the selection of the sample that characterizes the narrative review.

Step V: "discussion of results". At this stage, we seek to interpret and synthesize the results of the selected studies and identify the possible gaps in the literature.⁸

Step VI: "presentation of narrative review". The presentation of the review should be clear and complete to allow the reader to critically evaluate the results. It should contain, then, pertinent and detailed information, based on contextualized methodologies, without omitting any related evidence.⁸

For this review, a survey of the literature was conducted in the Pubmed Portal and in the databases of indexed scientific publications: Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature on Health Sciences (LILACS), Nursing Database (BDENF) and Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed Portal, in order to identify studies that measured the main pathologies that affect people with DS.

The Descriptors in Health Sciences - VHL were: "Down's syndrome" AND "Pathologies" AND "Trisomy 21" AND "Intellectual Disability" AND "Clinical manifestations". The searches were carried out in April 2021, followed by the analysis of the words of the text contained in the title and abstract and the indexed terms used to describe the article. Articles published in the Portuguese, English and Spanish, with different research designs, were analyzed to obtain a comprehensive understanding of the phenomenon investigated. To this end, and due to the contemporary aspects of the theme investigated, the period of publication of the studies found was not limited.

The criteria adopted for the inclusion of the articles were: full availability of the text in digital environment (open access) and thematic relevance. However, the following were excluded: articles that analyzed only the effects of medications on the main pathologies that affect people with DS, those who evaluated only the cost-effectiveness of treatments and the investigations performed in patients who did not present pathologies associated with Trisomy.

Results

For the bibliographic survey, a search was conducted in three databases and in the PubMed Portal, as shown in Table 1.

Table 1 - Databases consulted using descriptors. Sao Paulo, 2020.

Database	n	%
CINAHL	274	40,53
PubMed	239	35,35
BDENF E LILACS	163	24,11
TOTAL	676	100

Initially, 676 references were identified with the search in the databases, and 85 duplicate articles were removed. After this exclusion, the titles and abstracts of the 591 articles were read. After this stage, 567 manuscripts were excluded because they did not meet the selection criteria. Therefore, 24 articles were read in full. For eligibility, 15 studies were withdrawn because they did not meet the established criteria, so 9 articles that comprised the sample of this review were selected.

Table 2 shows that, after applying the criteria related to the method adopted in this review, 4 articles indexed in lilacs database were selected, 3 articles in Scielo and 2 manuscripts in PubMed, totaling 9 articles.

Table 2 - Databases used in the extraction of articles. Sao Paulo, 2020.

Database	n	%
LILACS	4	44,44
Scielo	3	33,33
PubMed	2	22,22
TOTAL	9	100

Table 3 shows that in 2014 the largest number of publications on the subject of this review was concentrated, corresponding to four published articles (44.44%).

Table 3 - Selected publications for sample composition, second year of indexing. Sao Paulo, 2020.

Year of publication	Absolute number	Percentage (%)
2013	01	11,1
2014	04	44,4
2016	02	22,2
2019	02	22,2
TOTAL	9	100

Finally, table 4 shows the articles selected according to title, authors, year of publication and journal.

Table 4 - Articles included in the review. Sao Paulo, 2020.

Title of article	Authors	Year	Journal
An overview of respiratory problems in children with Down's syndrome ¹⁰	Rachel Watts H Vyas	2013	BMJ
Major congenital anomalies in babies born with Down syndrome: a EUROCAT population-based registry study ¹²	Joan K. Morris, Ester Garne, Diana Wellesley, et al.	2014	American Journal of Medical Genetics
Peripheral auditory evaluation in children with Down syndrome ¹³	Barbara Carrico Alessandra Giannella Samelli Carla Gentile Matas, et al.	2014	Brazilian Academy of Audiology
Congenital heart diseases and chromosome stoopathies detected by karyotype ⁶	Patrícia Trevisan Rafael Fabiano M. Rosa Dayane Bohn Koshiyama, et al.	2014	Paulista Journal of Pediatrics
Prevalence and profile of congenital heart diseases and pulmonary hypertension in Down syndrome in pediatric cardiology service ²	Felipe Alves Mourato Lúcia Roberta R. Villachan Sandra da Silva Mattos	2014	Paulista Journal of Pediatrics
Down's syndrome ⁹	Doreen Crawford Annette Dearmun	2016	Evidence & Practice / A-Z of syndromes
Motor Development Assessment in Children with Down Syndrome ⁵	André Soares Trindade Marcos Antonio do Nascimento	2016	Brazilian Journal of Special Education
Dementia in Down syndrome: unique insights for Alzheimer disease research ¹¹	Ira T Lott Elizabeth Head	2019	Nature Reviews Neurology
Par XXI trisomy: Stomatopathic features ¹⁴	Carolina Astegiano Antonella Boiardi Juan Pablo Cacioli, et al.	2019	Rev. Soc. Odontol. La Plata

Discussion

This review showed the expressive interest in investigating the most recurrent pathologies in individuals with DS, considering their impacts on the life of this population. The nine selected studies provided important indicators of these comorbidities, constituting an essential basis for understanding the most common genetic abnormalities globally.⁹

Most of the selected studies^{2,6,10-14} measured the peculiar phenotypic characteristics in individuals with this anomaly, the following: oblique eyes, low ears, brachydactyly, hypotonia, short stature, brachycephaly, oblique fissures in the eyelid, epicanth, Brushfield spots on the iris, protruding tongue, small ears, small and wide hands, clinodactyly of the fifth finger, apes wrinkle and moderate to severe intellectual disability, gastrointestinal and cardiac malformations ,

marked increase in the incidence of leukemia and early onset of Alzheimer's. In addition to these aspects, people with DS may be affected by other pathologies associated with this genetic condition that commonly reduces life expectancy.

A European investigation pointed out that, among the pathologies associated with trisomy, more than 40% of babies born with DS had congenital heart diseases.¹² This study conducted with 29 researchers had as main objective to reveal whether the introduction of prenatal genetic screening programs influences any type of decline in the prevalence of additional anomalies in babies with DS.¹² Regarding congenital heart disease.¹² Regarding congenital heart disease, it was inferred that, even with the great advance in diagnostic techniques, karyotype examination (study of chromosomes present in DNA), is still essential to detect a congenital heart disease early.⁶⁻¹²

This syndrome causes greater susceptibility to respiratory diseases in individuals, mainly due to low immunity directly associated with the genetic anomaly.¹⁰ Regarding impairment in the immune system, national and international studies^{10,13,18} analyzed peripheral hearing in children with DS. As results, it was evidenced that, although they did not observe significant divergences, the findings were suggestive of impairment of cochlear function, possibly related to frequent otitis, which may cause severe health damage when not properly treated.

In addition, it was identified in a study conducted with 77 people with DS, who during the 20-year period, 97.4% of people developed dementia. Clinical dementia was associated with cognitive and functional deficit and epileptic seizures. From this perspective, the risk of dementia increased from 23% in people aged 50 to 80% in people aged 65 years and over.¹⁷

A Brazilian study tested the fine motor skills, balance and temporal organization of seven children with DS. It was found that the level of motor delay varied according to the requested task, respecting the uniqueness of each child, however, it was evidenced that all participants of the research presented deficits in their motor capacity.⁵

Finally, by summing up the information obtained through the articles included in this review, it is evident that most of the most recurrent pathologies in individuals with DS are directly associated with immunological deficiencies and genotypic or phenotypic alterations related to trisomy. In order to promote quality of life for people with DS, it is suggested that trisomy should be managed by trained health professionals and caregivers with skills - willing to resignify care in a humanized and thorough way. Thus, the deleterious effects and complications arising from these genetic mutations can be reduced and life expectancy maximized.

Conclusion

Individuals with Down syndrome suffer from a variety of immunological diseases and mediated conditions that significantly impact their quality of life. Apparently, all components of your immune system present abnormalities and correlations between these clinical changes. Therefore, the resources and therapy for this population remains challenging for health services at all levels of care.

However, regarding the clinical care of individuals with DS, one should consider the complexity of this condition and the numerous factors (mainly

immunological) that contribute to a higher risk of infections and pathologies associated with trisomy 21. In this sense, it is necessary to have regular attention and follow-up of health professionals about malignant pathologies, autoimmune and inflammatory diseases that affect people with DS.

However, further research is needed to understand the most recurrent pathologies associated with trisomy and the correlation with clinical manifestations, as well as studies to investigate possible strategies of treatment and prophylactic therapy that favor the immune system of these individuals, providing them with a better state of health and quality of life, since these cannot be neglected.

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Risk factors and preventive strategies for HIV / AIDS in men who have sex with men: Integrative Review

Fatores de risco e estratégias preventivas para o HIV/AIDS em homens que fazem sexo com homens: Revisão Integrativa

Factores de riesgo y estrategias preventivas para el VIH / SIDA en hombres que tienen sexo con hombres: Revisión Integrativa

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RESUMO

Objetivo: identificar os principais fatores de risco e as principais estratégias preventivas adotadas para o HIV entre Homens que fazem Sexo com Homens. **Método:** Revisão integrativa que utilizou as bases de dados Public Medline, Literatura Latino-Americana e do Caribe em Ciências da Saúde e Cumulative Index to Nursing and Allied Health Literature. **Resultados:** Os fatores de risco para o HIV mais prevalentes entre Homens que fazem Sexo com Homens são: múltiplos parceiros sexuais, relação sexual desprotegida, sífilis, uso de álcool e outras drogas, e sexo anal receptivo. As estratégias preventivas mais indicadas para essa população são: Profilaxia pré-exposição (PreP), tratamento como forma de prevenção (TasP), Testagem para HIV, uso consistente do preservativo e prevenção combinada. **Resultados:** Os fatores de riscos estão relacionados ao comportamento sexual e o uso de álcool e outras drogas e as estratégias preventivas concentram-se no emprego de medidas de prevenção combinadas. **Conclusão:** Os fatores de riscos para a infecção por HIV em HSH evidenciados foram: múltiplos parceiros sexuais, relação sexual desprotegida, sífilis, uso de álcool e drogas ilícitas, e sexo anal receptivo e como principais estratégias preventivas, PreP, TasP, Testagem para HIV, uso consistente do preservativo e prevenção combinada.

Descritores: Sorodiano de AIDS; Doenças Sexualmente Transmissíveis; Minorias Sexuais e de Gênero; Saúde do Homem.

ABSTRACT

Objective: to identify the main risk factors and the main preventive strategies adopted for HIV among Men who have Sex with Men. **Method:** Integrative review that used the databases Public Medline, Latin American and Caribbean Literature in Health Sciences and Cumulative Index to Nursing and Allied Health Literature. **Results:** The most prevalent HIV risk factors among men who have sex with men are: multiple sexual partners, unprotected sex, syphilis, use of alcohol and other drugs, and receptive anal sex. The most suitable preventive strategies for this population are: Pre-exposure prophylaxis (PreP), treatment as a form of prevention (TasP), HIV testing, consistent condom use and combined prevention. **Results:** The risk factors are related to sexual behavior and the use of alcohol and other drugs and preventive strategies are focused on the use of combined prevention measures. **Conclusion:** The risk factors for HIV infection in MSM were: multiple sexual partners, unprotected sexual intercourse, syphilis, alcohol and illicit drug use, and receptive anal sex and as main preventive strategies, PreP, TasP, HIV testing, consistent condom use and combined prevention.

Descriptors: AIDS serodiagnostics; Sexually Transmitted Diseases; Sexual and Gender Minorities; Men's Health.

RESUMEN

Objetivo: identificar los principales factores de riesgo y las principales estrategias preventivas adoptadas para el VIH entre Hombres que tienen Sexo con Hombres. **Método:** Revisión integrativa que utilizó las bases de datos Public Medline, Literatura Latinoamericana y del Caribe en Ciencias de la Salud e Índice Acumulado de Literatura en Enfermería y Afines en Salud. **Resultados:** Los factores de riesgo de VIH más prevalentes entre los hombres que tienen sexo con hombres son: múltiples parejas sexuales, sexo sin protección, sífilis, consumo de alcohol y otras drogas y sexo anal receptivo. Las estrategias preventivas más adecuadas para esta población son: Profilaxis pre-exposición (PreP), tratamiento como forma de prevención (TasP), prueba del VIH, uso constante del condón y prevención combinada. **Resultados:** Los factores de riesgo están relacionados con la conducta sexual y el uso de alcohol y otras drogas y las estrategias preventivas se centran en el uso de medidas preventivas combinadas. **Conclusión:** Los factores de riesgo para la infección por el VIH en HSH fueron: parejas sexuales múltiples, relaciones sexuales sin protección, sífilis, consumo de alcohol y drogas ilícitas, y sexo anal receptivo y como principales estrategias

Descritores: serodiano por SIDA; Enfermedades sexualmente transmisibles; Minorías sexuales y de género; Salud de los hombres.

Introduction

HIV / AIDS infection is considered a worldwide public health problem, due to its continuous growth and weak control. Although many achievements and advances have been achieved, coping with HIV remains a challenge due to clinical complexity, stigma, prejudice and opportunistic diseases.¹ Worldwide, it is estimated that 37.9 million people live with the virus.² Since the beginning of the epidemic in Brazil, from 1980 to June 2019, 966,058 AIDS cases in Brazil. The country has registered an average of 39 thousand new AIDS cases annually in the last five years.³

In the epidemiological context of AIDS, the population of men who have sex with men (MSM) is considered to be one of the most vulnerable, with a high number of cases of this disease in the categories of sexual exposure, homo and bisexual, despite showing a tendency towards stabilization. in recent years in Brazil. Such epidemiological data point to a worrying prevalence of 39.4% of cases of the disease resulting from sexual exposure in these categories.⁴

MSM are part of a group whose risk is much higher than others. The MSM population has a higher rate of HIV infection when compared to other populations.⁵ Therefore, MSM has a higher prevalence than in the general population, as they are more vulnerable to infection not only from HIV, but also from other sexually transmitted infections STIs.⁵⁻⁶

Surveys have investigated the various factors that favor the transmission of HIV / AIDS in the MSM subgroup, such as the adoption of unprotected sexual practices, the acquisition of risky behaviors, and prejudice and discrimination, which makes MSM one of the populations most vulnerable in the context of the HIV / AIDS epidemic.⁷⁻⁸

Living with HIV today requires much more than just treating the disease. People living with HIV / AIDS constantly need to deal with transdisciplinary problems involving depressive symptoms, stigma, discrimination and the adverse effects of the therapeutic regimen.⁹

In view of this scenario, MSM are at increased risk of HIV infection when compared to heterosexual men. Once with HIV, the stigma tends to be more present and increases the identity of a "socially devalued group". The prejudice associated with not being heterosexual still restricts the public visibility of MSM and keeps them hidden from government prevention efforts, whether due to fear of discrimination or physical harm due to the disclosure of their sexual identity or behavior.¹⁰⁻¹¹

The risk factors that increase the large number of registrations and infections due to this disease are related to barriers that hinder access to health services, such as sexual abuse, deprivation and violence.¹² Another risk factor is the lack of public policies aimed at key populations, recurring due to situations such as prejudice and discrimination, where those infected with the disease always suffer some type of social exclusion. In addition, the prevention of infection risks is one of the main obstacles to disease control in the MSM population. Because there are habits or options that vary according to the preference of sexual partners, prevention methods are adopted or ignored depending on the option of each person.¹³

Faced with the problem when considering the magnitude of this context, this study was guided by the research question: Are there risk factors and preventive strategies for HIV / AIDS in MSM available? To answer this question, this study aims to identify the main risk factors and the main preventive strategies adopted for HIV / AIDS in men who have sex with men.

Method

Integrative literature review, based on collecting and comparing data available in the literature, deepening the knowledge of the investigated theme. The integrative literature is a method that consists of the synthesis of results obtained through research on a given theme, in a systematic, orderly and comprehensive manner. And it has such name for providing more comprehensive information on a subject / problem, thus constituting a body of knowledge.¹⁴

Thus, the present review answers one or more questions explicitly for the identification, selection and critical evaluation of studies.¹⁵ To this end, this investigation started from the following question: What are the risk factors and preventive strategies adopted for HIV / AIDS in MSM?

It is noteworthy that the integrative review is a specific method used to summarize the past of both empirical and theoretical literature, to provide a broad understanding of a given phenomenon, analyzing the knowledge already built on previous research.¹⁶

The literature search was carried out in the following databases: *Cumulative Index to Nursing & Allied Health Literature - CINAHL*, *National Library of Medicine and National Institutes of Health - PubMed*, *Latin American and Caribbean Health Sciences Literature (LILACS)*. Data collection was carried out in the months of September and October 2019, by the researcher through access to the Higher Education Personnel Improvement Coordination portal. (CAPES).

The search was carried out in an uncontrolled manner, using descriptors indexed in the MeSH - *Medical Subject Headings* and DeCS - *Health Sciences Descriptors*, in Portuguese, English and Spanish: *HIV, male homosexuality, risk factors, prevention* with the following intersections: 1° association: HIV and "risk factors"; 2° association: HIV and "male homosexuality"; 3° association: HIV and prevention.

The articles were classified according to clinical evidence as follows: level 1, the evidence comes from a systematic review or meta-analysis of all relevant randomized controlled clinical trials or from clinical guidelines based on systematic reviews of randomized controlled clinical trials; level 2, evidence derived from at least one well-designed randomized controlled clinical trial; level 3, evidence obtained from well-designed clinical trials without randomization; level 4, evidence from well-designed case-control cohort studies; level 5, evidence from systematic review of descriptive and

qualitative studies; level 6, evidence derived from a single descriptive or qualitative study; level 7, evidence from the opinion of authorities and / or expert committee report.¹⁷

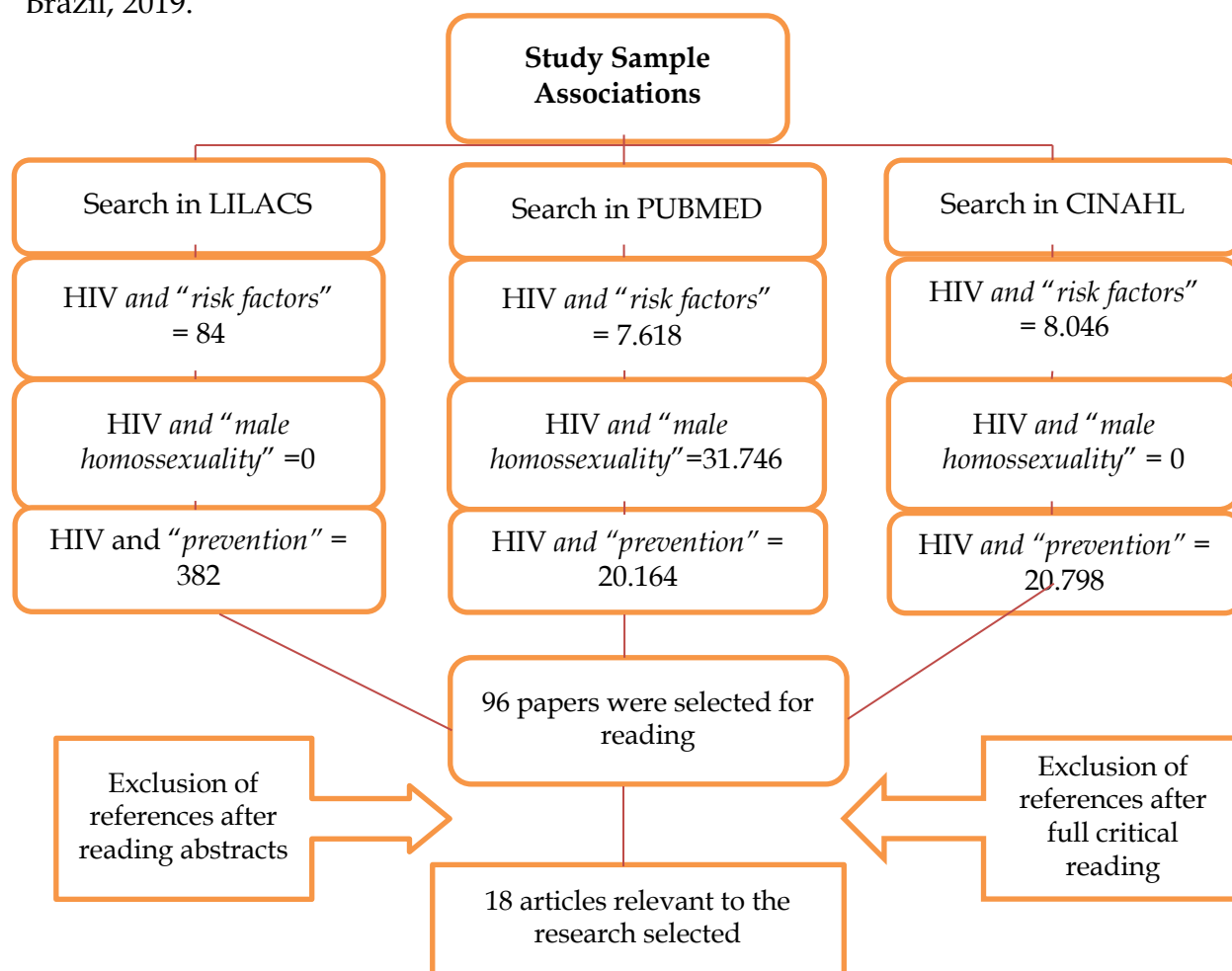
The following criteria were used for inclusion of references: works with free access published in CAPES databases, for coffee access, in the databases: PUBMED, LILACS E CINAHL, in the 2015-2019 period, containing abstracts available in full on the aforementioned databases and online for access. Exclusion criteria were: works with restricted access, publications outside the time frame, theses, monographs and incomplete texts or that did not correspond to the proposed theme.

To identify the selected works, a data collection table was created, with the following information: Identification of the article, namely: title, journal title, year of publication, authors, study location, study objective, methodological characteristics, level of evidence, main results, conclusion and observations, with the intention of organizing to verify their importance for the study and subject in question.

After completing the instrument for data collection, interpretations and analysis of the data were made, soon after, placed in a table with the main information, to perform the comparison of the selected articles. In view of the chosen bibliographies, all results were analyzed and interpreted using tables, charts and graphs, according to the need. Figure 1 shows the search for studies through associations. In the first association HIV and "risk factors", 15,748 references were found, of which 84 were published in the LILACS, 7.618 at PUBMED and 8.046 at CINAHL. In the second association HIV and "male homosexuality" 31,476 references were found, where there was no publication in the LILACS, 31.476 were published in PUBMED and just like in LILACS there were no publications in the CINAHL.

Through the association HIV and prevention, 41,344 references were found, 382 of which were published in LILACS, 20.164 at PUBMED and 20,798 at CINAHL. Among the references found, 96 papers were selected through the analysis of titles and abstracts for reading in full, where only 18 were identified as relevant to the study.

Figure 1 - Systematic layout of the works found in all associations, Maranhão, Brazil, 2019.



Results

After crossing the descriptors, it was possible to find a sample composed of 64 articles initially. Adopting the inclusion criterion related to the need for articles to be published in Portuguese, from the last 10 years and made available in its entirety, it was observed that, of this total, 31 met these criteria.

Making a more careful selection of the articles, it was observed that 19 had a different theme from the main theme that was the objective of this study, which is the importance of the hospital clinical pharmacy, as well as some of them were presented in duplicate, being, therefore, excluded. Finally, the final sample consisted of 12 articles, the results of which are shown in Table 1.

Table 1 - Summary of studies and their main results.

Author (year)	Objective	Method	Results	Conclusion
Bouças et al (2018) ⁴	Analyze the impact of the accreditation process on hospital pharmaceutical care, aiming to identify evidence of changes and improvements in the service provided by the hospital pharmacy.	Focus groups were conducted with pharmacists and internal customers of the pharmacy service of 5 private hospitals in the State of Rio de Janeiro intentionally selected. Recordings were made, later transcribed, for analysis of the content of the dialogues and thematic categorization.	Accreditation resulted in investments of infrastructure and human resources, implementation of new processes and a discreet change in the pharmacists' performance, leveraged by the clinical pharmacy. It was observed that such modifications contributed to a continuous transformation of hospital pharmaceutical assistance, with a modest improvement in the efficiency, quality and safety of the service provided. When considering the final results, satisfaction was partial, since the cycle of pharmaceutical assistance is not yet complete, weakening the newly implemented processes in favor of the quality of care offered to the patient.	The impact on the overall performance of the hospital pharmacy was considered positive, allowing to conclude that the guidelines of the accreditation pointed the way for the development evaluated services, insofar as they demanded the fulfillment of the standards necessary for a pharmaceutical quality.
Fariaset al (2016) ⁵	Implement a clinical pharmaceutical service focused on the complete review of antineoplastic agents used in the treatment of hematological diseases.	An interventional study was carried out in a Brazilian tertiary/teaching hospital in two different periods, based on the absence and presence of the clinical pharmaceutical service, respectively. This service consisted of pharmaceutical validation prescription medication antineoplastic agents (analysis of patient characteristics, laboratory tests, compliance with the therapeutic protocol and pharmacotechnical parameters). Inpatients and outpatients with hematological diseases were included.	There was an increase of 1065% in the detection of problems related to medicines after the implementation of the service. Comparing the two periods, there was an increase in the age of the patients (26.7 years versus 17.6 years), a predominance of outpatients (54% versus 38%) and an increase in multiple myeloma (13% versus 4%) and non-Hodgkin's lymphoma (16% versus 3%). The most commonly encountered problems were related to the dose (33% versus 25%) and the day of the cycle (14% versus 30%). As for the clinical impact, the majority had a significant impact (71% versus 58%) and one could have been fatal in the second period. The main pharmaceutical interventions performed were dose adjustment (35% versus 25%) and medication suspension (33% versus 40%).	The pharmaceutical service contributed to the increase in the detection and resolution of problems related to drugs, being an effective method to promote the safe and rational medication antineoplastic agents.
Lima et al (2016) ⁶	Describe and analyze guidance drug offered at discharge of patients transplanted.	A cross-sectional, descriptive and retrospective study was carried out, which used the records of the guidelines performed by the clinical pharmacist at the inpatient unit of the Renal and Liver Transplantation Service, Walter Cantídio University Hospital, in Fortaleza (CE), from January to July 2014. The following variables registered in the Database of the Clinical Pharmacy Service were analyzed: pharmaceutical guidelines at discharge, problems and negative results related to drugs, and pharmaceutical interventions performed.	The first post-transplant discharge involved the entire multidisciplinary team, with the pharmacist responsible for guiding the patient drug treatment. The average of hikes / month with orientation in the study period was 10.6 ± 1.3 , totaling 74 guidelines. The prescribed clinical treatment had an average of 9.1 ± 2.7 drugs per patient. 59 drug-related problems were identified; 67.8% were related to the non-prescription of the necessary medication, resulting in 89.8% risk of negative results associated with medications due to an untreated health problem. The main intervention was the request for inclusion of the drug (66.1%), and 49.2% of the drugs involved acted in the digestive system / metabolism. All interventions were classified as appropriate, and 86.4% were able to prevent a negative result.	The orientation of the clinical pharmacist with the multiprofessional team at the time of the transplant patient's discharge is important, as it prevents negative results associated with pharmacotherapy, ensuring drug reconciliation and patient safety.
Fideles et al (2015) ⁷	Analyze 3 years of clinical activities and pharmaceutical recommendations accepted during the pharmacist's daily routine in the adult intensive care unit.	An exploratory, descriptive, cross-sectional study was carried out from June 2010 to May 2013, in a tertiary teaching hospital, during which pharmaceutical recommendations were categorized and analyzed.	834 pharmaceutical recommendations were analyzed, which were classified into 21 categories. Pharmaceutical recommendations were mainly directed to doctors (n=699; 83.8%), the most frequent being: dilution management (n=120; 14.4%), dose adjustment (n=100; 12.0%) and management of adverse drug events (n=91; 10.9%). Comparing the periods, there was an increase, over the years, of pharmaceutical recommendations with a greater clinical component.	The role of the pharmacist in intensive care has evolved at the institution where the study was conducted, moving from reactive actions associated with logistics to effective clinical participation with the multidisciplinary team (proactive actions).

			and a decrease in those related to logistical aspects, such as the provision of medicines. The recommendations involved 948 drugs, with emphasis on anti-infectives for systemic use.	
Bernardi et al (2014) ⁸	Report the process of computerization and systematization of pharmaceutical evaluations of medical prescriptions, as well as describe the profile of medical prescriptions and pharmaceutical interventions in an oncology hospital in southern Brazil.	The study was carried out from February 28 to November 11, 2011, in an oncology hospital. The collection was performed through the hospital's computerized system, taking into account the adult and pediatric inpatient wards. 3,221 medical prescriptions were evaluated, 28.0% of the total medical prescriptions in the period. A high rate of prescription of antibiotics (52.9%) and antineoplastic agents was evidenced (27.1%). Based on the evaluations, 284 pharmaceutical interventions (8.8%) were performed, mainly related to professionals doctors and pharmacists	Of the total, 93.7% of the interventions were considered adequate and accepted by the team.	The computerization process took place with good acceptance by the team, and the proper registration allowed the verification of the pharmacists' performance in the evaluations, reinforcing the importance of this professional for the multiprofessional team.
Penna (2014) ⁹	Raise expectations of the health team regarding the role of the Clinical Pharmacist in the Institution's Pediatric and Neonatal ICUs to guide the actions that will be performed during the service implementation process.	Questionnaire application prepared by the Pharmaceutical Assistance Division to members of the Pediatric and Neonatal CII team of HCFMRP-USP.	Fifty professionals were interviewed, including nursing assistants / technicians, nurses, physiotherapists, doctors and other professionals. Nursing assistants / technicians and physiotherapists showed a greater expectation with questions related to medication administration; for resident doctors and nurses the expectation revolves around issues related to medical prescription.	It was concluded that the service of Clinical Pharmacy in Intensive Care Units is a work still little known.
Paulo (2014) ¹⁰	To better understand the steps taken by the medicine during its dispensing and distribution trajectory, the processes of each step of the flow and the most complex and important subprocesses, aiming at improvements and benefits both for health professionals and for the institution and, mainly, for the patient.	The data collection performed by the ethnographic method of description and observation of the phenomenon presented a context very close to the daily reality of the teams and provided a view of the complex scenario of the Hospital Pharmacy of the Health Complex of the Hospital das Clínicas of the State University of Campinas, São Paulo, from April to September 2010.	The professionals involved in dispensing and distribution, and even in the administration of medicines, make simple mistakes in these processes, usually associated with the lack of attention to the process and the distraction that the environment imposes on them, such as the large circulation of people, telephone service, exchange information between teams and others. Despite not being the object of this study, it is recognized that the hospital pharmacy work environment can indirectly contribute to medication administration errors, and other studies need to be carried out to better understand this scenario.	The study concluded that the medication dispensing and distribution flow includes 5 steps: (1) pharmacy warehousing, (2) preparation, (3) dispensing, (4) distribution in the wards and (5) return. There are 18 processes involved, and the critical points of greatest attention are the process of unifying medicines, sorting prescriptions, separating prescriptions and registering medications. It is vitally important to build a strategic plan focused on the prescription, distribution and dispensing of medicines, with short, medium and long term investments, with the objective of guaranteeing full safety to the users of the health system. He also concluded that the computerization of the Medical area, as in any activity, has become extremely important in updating and consolidating data, since in the hospital pharmacy, there are many areas in which the improvement of quality and productivity is associated with the use of a more efficient computerized system in data processing and control, making it essential.
Nascimento et al (2013) ¹¹	Evaluate the existence of associations between variables in hospital pharmacy services.	30 variables from the Diagnosis project were used of Pharmacy Hospital in Brazil related to the general characterization of the hospital, general characterization of the hospital pharmacy service and stages of	The results indicated a direct relationship between fulfillment of activities and type of hospital and specialized pharmacists. The cluster analysis identified six groups related to the size of the hospital, with greater fulfillment of activities by hospital pharmacy services in large units and with	It was concluded that the techniques were able to identify associations and a concise list of variables for a comprehensive assessment of hospital pharmacy services in the country.

		pharmaceutical assistance. Dimension 1 of correspondence analysis multiple explained 90.6% of the variability, differentiating hospital pharmacy services according to the presence of activities, thus suggesting an axis of characterization of the structure of pharmacy services hospital.	pharmacists (more time dedicated to hospital pharmacy service and higher level of training).	
Rabelo Borela (2013) ¹²	The objective of this study was to propose the insertion of the pharmaceutical professional in the control of pain of oncological origin aiming at the rational use and monitoring of adverse reactions to medications.	For the effective control of pain, implementation of analgesic measures and evaluation of the therapeutic efficacy of pain, the correct use of the World Health Organization (WHO) "Guide for Pain in Cancer" is essential, which provides guidelines for pain control in most patients with advanced cancer, and it is also essential to report the patient's painful experience to health professionals.	The scales for measuring pain combined with the protocol recommended by the WHO have proven to be an essential instrument for the rational use of medicines.	The pharmaceutical professional, in addition to fulfilling his current activity, is able to interact in multidisciplinary teams, assisting in the pain management of patients cancer, evaluating the length of this protocol established by WHO in pain control.
Miranda et al (2012) ¹³	Demonstrate the role and importance of the clinical pharmacist in the First Care Unit in identifying, classification and survey of the number of interventions performed by the clinical pharmacist.	A retrospective study was carried out from January 1, 2010 to December 31, 2010, at the Morumbi First Care Unit of Hospital Israelita Albert Einstein. The interventions were carried out by the clinical pharmacist through work with the interdisciplinary team and active search in medical records, with the daily analysis of the medical prescription within eight hours (10 am and 7 pm) from Monday to Friday.	A total of 3,542 medical prescriptions were evaluated and 1,238 interventions occurred. The classifications and quantities of interventions were: route of administration: 105 (8.48%); frequency: 73 (5.89%); dose: 431 (35%); renal function: 14 (1.13%); compatibility: 50 (4%); dilution: 121 (9.77%); legibility: 39 (3.15%); pharmacovigilance: 7 (0.56%); adverse reaction to medications: 7 (0.56%); allergy: 35 (2.82%); infusion time: 76 (6.13%); indication: 52 (4.20%); drug reconciliation: 2 (0.16%); medicines via tube: 38 (3%); schedule: 7 (0.56%); protocol specific anticoagulants: 44 (3.55%); protocol specific hypoglycemic: 42 (3.99%).	The study allowed to demonstrate the importance of the clinical pharmacist working in the First Care Unit. For the classification and by the number of interventions performed, it was possible to observe that the Clinical Pharmacy Service had a great impact in increasing safety at patient and prevention adverse events.
Feracini et al (2011) ¹⁴	Demonstrate the development and contribution of the clinical pharmacy to the safe and rational use of medicines in a large tertiary hospital.	The work involved the participation of the clinical pharmacist in all issues related to the use of medicines in the hospital. In the beginning, it was related to the analysis of medical prescription, horizontal visit and implementation of protocols. Later, other activities were incorporated, such as: pharmacovigilance, participation in commissions and managed routines. After identifying the drug-related problem, the pharmacist contacted the doctor and, after the intervention, recorded the conduct on the prescription and / or on the patient's medical record.	There was an increase in the number of clinical pharmacists, reaching 22 in 2010. There was also an increase in the types and number of interventions performed (from 1,706 in 2003 to 30,727 in 2010) and we observed 93.4% adherence by the medical team in 2003, reaching to 99.5% in 2010.	The clinical pharmacy has shown a positive impact in relation to the number of interventions performed, promoting rational use of medicines and increasing patient safety. The pharmacist was inserted and guaranteed his space with the multidisciplinary team and in the patient safety process within the institution.
Borges Filho et al (2010) ¹⁵	Highlight the contributions of the pharmacist and the hospital clinical pharmacy in the quest to reduce the use of human albumin by 20% with unsubstantiated indication at Hospital Israelita Albert Einstein.	During a period of 30 days (December, 2006), a preliminary prospective analysis was carried out using the medical prescriptions of patients with human albumin, and therapeutic indications were evaluated in relation to the guidelines established by ANVISA resolution RDC 115. Based on this information, an action project was prepared and a routine of daily monitoring of prescriptions by pharmacists was instituted as of January 2007.	From January to October 2007, 14,799 bottles of 20% albumin were consumed. Of these, 4,191 with unsubstantiated indication, corresponding to a loss of R\$1.36 million. In 2008 (from January to October), 13,519 vials of 20% albumin were prescribed. Of these, 1,648 with unsubstantiated indication, which accounts for a loss of R\$535 thousand. The ratio between the risk of loss and the amount consumed from January to October 2007 was 91.99. In the same period in 2008, it was 39.60. From January to October 2007, the average percentage of albumin prescribed with unsubstantiated indication was 28%. In the same period in 2008, this percentage dropped to 13%. A 54% reduction.	The Pharmacist's involvement in the process of verifying the indication and justification for the use of the medication represented the guarantee of safe processes for the patient, ensuring that he receives the right medication for the correct indication, thereby reducing the likelihood of adverse events and helping to reduce bureaucracy and expenses unnecessary in this institution.

Results

Table 01 shows that the references published in the English language represent 89% of the sample, being the language with the largest number of publications, while Portuguese was represented by 11% of the works and Spanish did not present any publication.

Table 1 - Distribution of the absolute number and percentage of studies, by language, Brazil, 2019.

Languages	Interges	%
English	16	89,0
Portuguese	2	11,0
Spanish	0	0,0
Total	18	100,0

Table 2 shows the distribution of the 18 articles selected according to their country of origin. Thus, 5 (28%) articles are from the United States, 5 (28%) from China and the other countries, India, Brazil, Thailand, Vietnam, Mali, Mozambique, Lebanon and France each have 1 (6%). It was demonstrated that the United States had a greater amount of research on the subject addressed.

Table 2 - Distribution of the absolute number and percentage of studies, by country of origin, Brazil, 2019.

Country of origin	Absolute Number	%
United States	5	28,0
China	5	28,0
India	1	6,0
Brazil	1	6,0
Thailand	1	6,0
Vietnam	1	6,0
Mali	1	6,0
Mozambique	1	6,0
Lebanon	1	6,0
France	1	6,0
Total	18	100,0

Looking at table 3, it can be seen that the PUBMED database, as shown in the table, stood out in relation to the other databases, contributing twelve articles, (67%) of all material used, however the LILACS AND CINAHAL databases also contributed significantly, with 11% and 22% respectively, although less frequently, they were fundamental to the study.

Table 3- Distribution of the absolute number and percentage of studies, by publication source, Brazil, 2019.

Source	Absolue Number	%
PUBMED	12	67,0
LILACS	2	11,0
CINAHL	4	22,0
Total	18	100,0

Table 1 represents a summary of the studies used in the sample that went through the analysis process, describing the author, year of publication, title of the article, methodological approach, degree of evidence and database and journal.

Chart 1 - Summary of the studies included in the integrative review, in the LILACS, PUBMED and CINAHL databases, in the period from 2015 to 2019, Brazil, 2019.

Author Database/Periodical Language	Year	Methodological Approach	Main Results
REISNER et al. Pubmed/ Journal of the International AIDS Society	2019	Quantitative	Of 857 MSMs, 55.2% had indications for PrEP. Risk Factors: Multiple sexual partners.
ARMSTRONG et al. Pubmed/ International Journal of Drug Policy	2015	Quantitative	In a sample of 420 MSMs, a third (37%) of men reported a history of anal sex with men, of which only 16% used a condom in the last anal sex.
DUAN et al. Pubmed/Drug and Alcohol Dependence	2017	Quantitative	Among MSM surveyed in 1935, 12.7% reported use of recreational drugs in the past six months. Recreational drug use was significantly associated with an increased risk of HIV and syphilis infections.
HE et al. Pubmed/BMC Infectious Diseases	2018	Quantitative	A total of 608 MSM were screened, 406 HIV-negative MSM. Prevalence of unprotected anal sex with regular male sexual partners, and non-regular male partners in the last six months was 53.9%, 23.6, respectively.
STRÖMDAHL et al. Pubmed/ Eurosurveillance	2015	Quantitative	A systematic review including five cohort studies (n = 8,825) reported that condom use reduced HIV transmission (relative risk (RR): 0.36; 95% confidence interval (CI) 0.20-0, 67) [27-32].
WILLIAMS et al. Pubmed/ American Journal of Public Health	2015	Systematic Review	Among HIV-positive MSM (n = 337), sexual intercourse between 12 and 16 years of age was positively associated with having more than 3 male partners in the last 6 months.
THIENKRUA et al. Pubmed/ AIDS Behavior	2018	Quantitative	HIV incidence was 7.4 per 100 person-years. In multivariable analyzes, reporting the use of a drug for erectile dysfunction in combination with drugs for clubs, having receptive or inserted and receptive anal intercourse with men, having hepatitis A infection, having rectal Chlamydia trachomatis, having hepatitis B infection before seroconversion HIV and not always reporting condom use with male partners is significantly associated with the incidence of HIV in MSM.
LE et al. Pubmed/ BMC Public Health	2016	Cohort Study	MSMs who practice receptive anal sex and who felt at risk of HIV infection, were at higher risk of HIV infection.
ZHANG et al. Pubmed/AIDS Care	2017	Quantitative	After considering possible confounding factors and time-varying effects, our models indicated that drug and alcohol use increases the risk of HIV in MSM.
CHAN et al. Pubmed/AIDS PATIET CARE and STDs	2015	Cohort Study	In a group of 538 MSMs, 7% had the highest prevalence of HIV and other sexually transmitted diseases, 16%), > 10 anal sex partners in the 12 months (69%), anonymous partners (100%), use of drugs / alcohol during sex (76%) and previous STDs (40%). MSM that can benefit most from PrEP includes those who have > 10 sexual partners

			per year, anonymous partners, drug / alcohol use during sex and previous STDs.
LAHUERTA et al. Pubmed/ AIDS Behavior	2018	Qualitative	Factors associated with higher chances of HIV included younger age, receptivity to the last partner, breaking a condom during anal sex in the last 6 months.
LUO et al. Pubmed/BMJ Open	2015	Quantitative	The MSM population in Hangzhou has a high prevalence of HIV / syphilis infection, low perceived risks of HIV and more involvement in unsafe sex with their clients and partners, in addition to a low rate of condom use. These risk factors may explain your relatively high HIV / syphilis infection.
YANG et al. Pubmed/ AIDS RESEARCH AND HUMAN REROVIRUSES	2016	Quantitative	MSM with a comprehensive knowledge of HIV had a reduced risk of diagnosis, while those with more male sexual partners, more male sexual experiences (including anal / receptive or / and insertion sexual intercourse, rimming and fisting) and a current syphilis infection were at risk. increased risk of HIV diagnosis.
MARTINEZ et al. Cinahl/ Trials	2018	Control Case	Main methods of preventing condom use and acts protected by PrEP and TasP.
CUMMINGS et al. Cinahl/ AIDS and Behavior	2018	Randomized	In a sample of 563 MSM, 56.8% had receptive anal sex with men 12 months earlier, including 1,587 unprotected sex acts with men.
AUNON et al. Cinahl/Social Work in Public Health	2015	Quantitative	It demonstrated that MSM who practiced sex for money chose not to use non-client sexual partner condoms, in an effort to differentiate sex for work versus pleasure.
MORA; BRIGEIRO; MONTEIRO LILACS/Collectiv Health	2018	Qualitative	It points to HIV testing as a method of prevention in MSMs.
CALAIS; PERUCCHI LILACS/ Psychology in Review.	2017	Systematic Review	It advocates the combined prevention method as a means of HIV prevention in MSMs.

Discussion

The findings of this study are able to highlight the risk factors and preventive strategies for the prevention, control and coping with HIV / AIDS in men who have sex with other men.

With regard to risk factors, the location and understanding of risk factors for HIV is essential for providing the basis for the implementation of policies aimed at prevention. In the case of Men who have Sex with other Men (MSM), the contamination of this public exposes them to a global epidemic of serious impact and which continues to expand in most countries, which indicates the need for advances in knowledge about related factors.¹⁸ From the researched scientific productions, they pointed out the main risk factors that contribute to HIV contamination in MSM: multiple sexual partners, unprotected sex, syphilis, use of alcohol and illicit drugs, and receptive anal sex, a result similar to that found in a meta-analysis of 12 studies in China.¹⁹ As has been pointed out, the multiplicity of sexual partners is a factor associated with HIV infection. Because the greater the number of sexual partners, whether male or female, the greater the chance not only of transmission, but also of HIV contraction between MSM and their partners.²⁰⁻²¹

The multiplicity of partners increases the risk not only of contracting HIV, but also of other STIs and is a significant predictor of behavior seeking health treatment, as people with only one sexual partner are more likely to seek health treatment earlier.²²⁻²³ In a study conducted in China it was identified that having multiple male sexual partners is directly associated with HIV infection, in the same study more than 10% of the survey participants reported having at least five sexual partners in the last 6 months prior to the survey. that becomes very worrying.

People who have multiple sexual partners are more likely to engage in other risky sexual behaviors than people who have only one partner.²⁴ This is in line with a study in Addis Ababa, in which unprotected sex was greater among those who had multiple sexual partners compared to those who had a single partner.²⁵

Unprotected sexual intercourse is a very common practice among MSM who, at times, are unaware of their partner's serological situation, which makes this attitude an important risk factor for HIV contraction. In general, unprotected sex in the presence of detectable viral load, especially when the serological situation is not known, are responsible for new HIV infections among MSM.²⁶⁻²⁷

Anal sex is ten times more at risk for HIV transmission when compared to vaginal sex without a condom. In many situations, unprotected sex can be a conscious and desired choice, which can be seen in sexual practices *barebacking*, in which MSM practice anal sex without using condoms intentionally, as it is considered more pleasurable.²⁸

Many MSM still keep in mind that unprotected anal intercourse with a regular partner is safe and they have not recognized the risk of such relationships within regular relationships, although most HIV infections are transmitted by regular sexual partners.²⁹⁻³⁰

Despite the awareness of the importance of condoms, MSM do not feel vulnerable to HIV and claim some reasons to justify unprotected sex such as the possibility of condoms to break the decrease in pleasure. And they end up offering resistance to condom use because they believe their partner is not HIV positive, ashamed to buy condoms, not being able to use them, lack of money and false beliefs.³¹

Even with all the existing and widely disseminated information on condoms, and their distribution for free, the amount of MSM involved in unprotected sexual practices is very high.³² Having had syphilis or an ulcerative STI increases the risk of HIV contamination.²⁰ In a study conducted between 2013 and 2015, about 70.7% of MSM with syphilis had HIV co-infection, as well as genital ulcer.³³⁻³⁴

The presence of other STIs facilitates the risk of HIV transmission due to the interruption of protective barriers and the recruitment of immune cells susceptible to the site of infection. Among STIs, syphilis stands out due to the increase in HIV viral load in the patient's blood plasma and the decrease in the count of TCD4 cells, which can contribute to the progression of infection to AIDS.³⁵

According to the WHO, 2014 alcohol is a psychoactive substance with addictive properties and has been used for centuries and in different cultures. Alcohol use can be harmful and cause a large number of health problems, as well as social and economic burdens on societies.

A factor related to the sexual practices of MSM and associated with HIV infection and other STDs is the inconsistent condom use that can occur due to the use of alcohol and / or psychoactive substances before and during sex, which can increase exposure to HIV infection.¹⁸

Thus, the use of illicit drugs has been associated with an increased prevalence of unplanned pregnancies and STIs, in addition to HIV infection. Since the end of the 1980s, the relationship between illicit drugs has been a concern because of the increasing prevalence of HIV / AIDS and other STIs in this population.³⁶⁻³⁷

In a study carried out with drug users treated in treatment at a Psychosocial Care Center focused on assisting alcohol and drug users, (CAPSad) pointed out that despite drug use, it is associated with sex and that it makes sense for participants in such research, in practice, condom use was inconsistent, and they had a high prevalence of STIs.³⁸ In addition, the presence of preference for receptive anal sex was also identified in other scenarios and revealed that those who prefer receptive anal sex are more likely to be diagnosed with HIV, this is because unprotected anal sex carries a greater risk of transmission HIV.³⁹

Finally, the main form of HIV transmission in Brazil is through sexual intercourse, with unprotected anal receptive sexual practice being the most risky situation for acquiring the virus.⁴⁰

Due to the fragility of the epithelium of the anorectal mucosa, there is an increased risk of rupture of the epithelial barrier during sex, this fact, associated with the absence of a protective antibody barrier in the rectal mucosa, facilitates the entry of the virus into the host.

Regarding HIV preventive strategies involving men who have sex with other men (MSM), it was identified that in the research selected as the basis for the present study, the main preventive strategies pointed out are: PreP, TasP, HIV testing, consistent condom use and combined prevention.

Pre-exposure prophylaxis (PrEP), marketed as "truvada", is a combination of two drugs in a single tablet: deprofil tenofovir fumarate (TDF) and emtricitabine (FTC), and is used daily, via oral.⁴³

Its use is particularly recommended for key populations vulnerable to infection, among which MSM stand out and among the current biomedical prevention strategies against HIV infection, PrEP, has stood out for the effectiveness presented in the clinical trials developed, with reduction in risk of infection by up to 92%.⁴⁴

The use of PrEP can be a useful method to prevent HIV infection and in addition to directly protecting individuals who take it, it can also have an indirect effect on people who are not PrEP, since a reduced number of infections by HIV will eventually lead to decreased transmission. People who take PrEP may feel protected from HIV infection and, consequently, use less condoms. On the other hand, PrEP users can be widely advised, be more aware of their risk behaviors and the risks of unprotected sex, and therefore may be more likely to use condoms.⁴⁵

In countries where HIV transmission occurs among MSM, PrEP should not be considered as the only intervention option, as other HIV prevention options are needed.⁴⁵ PrEP is recommended due to the positive result of benefits and damages based on high-quality evidence, acceptability in the review of values

and preferences, feasibility in study environments, and potential cost-benefit, however there are no data on the long-term effects. TDF / FTC term in health in individuals not infected with HIV or among those who become infected with HIV while on PrEP.

Unlike what happens in other countries where the drug is marketed in 2015, the Ministry of Health announced the development of the first national study with MSM aimed at distributing PrEP free of charge through the Unified Health System (SUS) in hospitals and in specialized treatment posts. and STI / AIDS prevention.⁴⁶

Before prescribing the use of PrEP, health services that provide treatment should educate and advise potential users about the risks and benefits of PrEP and can also conduct an individualized risk-benefit assessment to assess possible eligibility. For the candidate to be able to use PrEP, some criteria must be met, which are: being HIV negative; having no suspicion of acute HIV infection; be part of the population at substantial risk of HIV infection; not having contraindications for PrEP drugs (for example, TDF / FTC); be willing to use PrEP as prescribed, including periodic HIV tests.⁴⁷

TasP is a term used to describe a method of preventing HIV infection (regardless of the CD4 cell count) that uses antiretroviral therapy in HIV-infected individuals, because with the reduction of the viral load in the person infected by the virus, there is a decrease the likelihood of HIV transmission.⁴⁸

Antiretroviral treatment cannot be seen as the only means of prevention. The prevention policy should be combined with other ways of reducing the transmission of the virus, such as treatment of other sexually transmitted infections that increase the likelihood of HIV transmission, advice on the forms of transmission and prevention methods available, policy of reduction of harm to people who inject drugs.⁴⁹

TasP's intention is that in addition to having a better quality of life, they have less viruses circulating in their bodies (with low or even undetectable viral load), and this causes a great impact as it reduces the transmission of HIV in the community.⁵⁰

Since 2005, rapid tests have been offered in Brazil, in compliance with Ordinance No. 34/2005, which discusses the mandatory use of rapid tests for the diagnosis of HIV infection in special situations such as occupational risk, pregnant women who have not been tested in the prenatal care, a population that is difficult to access and can also be used in cases where there is a need.⁵¹ However, the insertion of rapid tests in the protocols published by the Ministry of Health, for the diagnosis of STIs, is relatively recent and the professionals responsible have not yet they have sufficient security for interpretation and conduct after their performance.⁵¹

MSM are one of the populations with a concentrated HIV epidemic, which is disproportionate to other populations, which means that the importance of periodic HIV testing, as a prevention strategy in the programmatic response to the HIV / AIDS epidemic, is discussed on a global scale.⁵¹

The Testing and Counseling Centers (CTA), implanted in Brazil since 1989, offer anti-HIV testing free of charge and carry out STI diagnosis and prevention actions. The counseling actions carried out in these places have the purpose of passing on information to users about HIV / AIDS and guide them in relation to

preventive measures and coping with seropositivity and disease, however WHO estimates indicate that only 0.2% of adults in low- and middle-income countries undergo testing and counseling for HIV. diagnosis of HIV infection.⁵³

Rapid tests decrease the transmission of STIs and also the number of aggravating factors and mortality, thus having a great impact on public health, as they do not need a laboratory structure like the other standard tests and cover a larger number of people, thus allowing the diagnosis and treatment of individuals who would not otherwise be diagnosed.⁵⁴

Condoms are safe, low-cost methods with no side effects. The Ministry of Health recommends that its use should be encouraged even in cases where other prevention methods are in progress, such as Post-Exposure Prophylaxis (PEP) or PrEP and its offer must be made without restrictions, without limitations on withdrawal quantities. and without the need for identification documents, so that it is not difficult for people to access these inputs.⁵⁵

The consistent use of condoms is an important preventive measure also for people living with HIV / AIDS, since among serodiscordant and seroconcordant couples it is intended to prevent reinfection of strains already resistant to antiretrovirals, to decrease viral load during sexual intercourse and to avoid transmission of other sexually transmitted infections.⁵⁶

Condom use is an effective method for the prevention of STIs including HIV as long as it is used correctly and frequently, and its use properly is directly related to knowledge, attitudes and practice, that is, to know, feelings and behaviors in relation to STIs.⁵⁷

Combined prevention should not only have a biomedical approach, but also include cultural, social and structural dimensions of the epidemic. It is not a mere combination of methods and technologies, but a combination of these methods with structural factors, with social aspects (favorable social and cultural environments, such as less stigma and discrimination) and behavioral (expanding the level of knowledge about the new methods, individual and collective choices).⁵⁸

The effective adoption of multiple preventive approaches also depends on the access of individuals and communities to information about available methods, in addition to awareness of the potentially most effective methods in the light of their specific situations and the empowerment to make decisions about the prevention options they make. more meaning to their lives.⁵⁹

Combined prevention has several challenges to be successful, in addition to taking the test to everyone, removing the clinical criteria for starting ART, you should also encourage all people who are diagnosed with HIV to enter as soon as possible, under treatment, always respecting the autonomy of these people in relation to this choice.⁵⁶

Conclusion

The study identified the main risk factors for HIV infection in MSM: multiple sexual partners, unprotected sex, syphilis, use of alcohol and illicit drugs, and receptive anal sex and as the main preventive strategies, PreP, TasP, Testing for HIV, consistent condom use and combined prevention.

When evaluating the scientific productions related to the risk factors and preventive strategies of HIV / AIDS in MSM in the referred period, it was observed that it is of fundamental importance that the contamination by HIV / AIDS in the population addressed here has in the current context of our society and the continuity of the subject may, of course, provide subsidies for further discussion and direction of actions and conduct in the face of the theme, aiming at reducing the consequences arising from HIV / AIDS infection.

It is also highlighted the need to encourage actions aimed at expanding health education based on the awareness of key populations and other populations, prioritizing prevention and protection actions for the whole society.

It is emphasized that knowing the risk factors and preventive strategies for HIV/AIDS in MSM is not always sufficient to reduce the incidence of this phenomenon. Actions are also needed to facilitate and encourage access to health services, so that everyone can have access to guidance, methods of prevention, and treatment of such a problem.

Therefore, considering the relevance of the subject and the high rates of HIV/AIDS infection in MSM today, the findings cited in this study may serve as subsidies for other future studies with the objective of implementing safe sexual practices, implementing public policies and awareness of the entire population.

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Friendship relationships, tolerance level and associated factors in the context of higher education

Relações de Amizade, nível de tolerância e fatores associados no contexto do ensino superior

Relaciones de amistad, nivel de tolerancia y factores asociados en el contexto de la educación superior

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RESUMO

Objetivo: analisar a importância das amizades no processo de tolerância durante o período acadêmico. **Método:** Estudo transversal, analítico e quantitativo, realizado com 276 discentes da área de saúde de uma instituição privada do estado de Goiás. Foram aplicados formulário sociodemográfico e o instrumento de Avaliação da Tolerância nas Relações de Amizade. A análise deu-se por meio de estatística descritiva e regressão linear, com método backwar. **Resultados:** As relações interpessoais de amizades facilitam a permanência dos discentes no curso. A religião, o curso de graduação escolhido e o período do curso em que o aluno está matriculado foram fatores que contribuíram para o aumento da tolerância às relações de amizade. **Conclusão:** Os achados principais sugerem que dois fatores são importantes para a manutenção da tolerância características sociodemográficas e relação interpessoal entre os amigos.

Descritores: Amizade; Relações interpessoais; Desenvolvimento de pessoal; Serviços de saúde escolar.

ABSTRACT

Objective: to assess the importance of friendships in the tolerance process during the academic period. **Method:** Cross-sectional, analytical and quantitative study, carried out with 276 students in the health area of a private institution in the state of Goiás. A sociodemographic form and the instrument of Assessment of Tolerance in Friendship Relationships were applied. The analysis was carried out through descriptive statistics and linear regression, with the backwar method. **Results:** Interpersonal friendship relationships facilitate the permanence of students in the course. Religion, the chosen undergraduate course and the period of the course in which the student is enrolled were factors that contributed to the increased tolerance for friendship relationships. **Conclusion:** The main findings suggest that two factors are important for the maintenance of tolerance, sociodemographic characteristics and interpersonal relationships among friends.

Descriptors: Friendship; Interpersonal relationships; Staff development; School health services.

RESUMEN

Objetivo: analizar la importancia de las amistades en el proceso de tolerancia durante el período académico. **Método:** estudio transversal, analítico y cuantitativo, realizado con 276 estudiantes del área de la salud de una institución privada del estado de Goiás. Se aplicó un formulario sociodemográfico y el instrumento de Evaluación de la Tolerancia en las Relaciones de Amistad. El análisis se realizó mediante estadística descriptiva y regresión lineal, con el método backwar. **Resultados:** las relaciones de amistad interpersonal facilitan la permanencia de los estudiantes en el curso. La religión, el curso de graduación elegido y el período del curso en el que está matriculado fueron factores que contribuyeron al aumento de la tolerancia a las relaciones de amistad. **Conclusión:** los principales hallazgos sugieren que dos factores son importantes para el mantenimiento de la tolerancia, las características sociodemográficas y las relaciones interpersonales entre amigos.

Descritores: Amistad; Relaciones interpersonales; Personal de desarrollo; Servicios de salud escolar.

Introduction

The interrelationship between affective, intimate, reciprocal and spontaneous components between two or more people characterizes friendship.¹⁻² The concept of friendship is complex and full of facets, and can be defined in several ways, especially when assessing the importance of the protection factor among friends during harmonic coexistence. Studies reveal that the lack of bonds of friendship becomes a risk factor, triggering socio-emotional and behavioral changes during any phase of the lives of individuals.²⁻⁴

Thus, sharing experiences and interests, enduring social surprises and obstacles, and developing feelings and emotions are actions provided by friendship, whose importance is related to happiness and subjective well-being. In this context, interpersonal relationships are satisfactory and harmonic only when relationships between friends allow people to learn from their shared skills.^{1,5}

Thus, friendships can be established based on four factors: environmental, situational, individual and sadistic. The environmental factor is related to the residential proximity between the subjects, facilitating the conviviality. The situational refers to interaction, frequency, availability and dependence. Then, the individual factor is composed of inclusion and exclusion rules practiced in the pre-selection of candidates for friends. Finally, the sadistic factor concerns the correlation between the first impressions that the subject induces about the other and the openness to deal with intimate matters with the friend.⁶⁻⁷

Thus, within the concepts of friendship are also inserted affective relationships between people by sharing their fears, hopes, frustrations and interests, maximizing the friendly bond between the members.¹ Soon, the network of friends commonly expands and people of similar age groups and of the same gender tend to approach. Therefore, friendship involves factors such as age, sex, religion, ideologies, education, ethnicities and race.^{2,4}

Studies report that friendship relationships during childhood and adolescence are a foundation for the improvement of the socialization process, whose function is to develop important social and behavioral skills for living in society.^{1,8-9} It is noteworthy that, over the years and beginning of adulthood, most of the friendships built during these phases are naturally dissolved, due to the fact that individuals acquire new priorities and social needs.¹⁰

Under this bias, adaptation to a new reality is the first challenge that students face when entering a higher education institution (HEIs). Such adaptation will be successful or not, depending on the students' ability to understand their personal relationship with the course, presence or absence of stressful factors such as anxiety about academic requirements, the student's bond with his institution and, mainly, the ability to establish new relationships of friendship.^{2,11}

The absence of a support network can subject individuals to sociobehavioral problems. Thus, in the academic context, the support of colleagues and university staff, as well as family members, assists in the process of adaptation of the student.⁹ Esses laços são considerados fatores de proteção

individual na transição para o meio acadêmico, uma vez que a busca de auxílio por pares facilita o enfrentamento dos obstáculos da academia^{3,9}.

Moreover, in higher education, the relationship between peers and the first bonds are generally established in the initial weeks of class.¹²⁻¹³ This bond contributes to the sense of academic well-being of students, establishing the first network of emotional support. Through this network, students can develop their academic activities, as they are supported and ready to face problematic situations.^{2,4}

Therefore, this study sought to understand how friendships, especially the most intimate ones, act in the process of tolerance during the academic period, and therefore aimed to analyze the importance of friendship relationships in the process of tolerance during the context of higher education.

Method

This is a quantitative study of the analytical cross-sectional approach carried out in a private Higher Education Institution (HEIs) in the interior of the state of Goiás between March and April 2019.

It was found that the total population of students of the HEI investigated corresponds to 1664 students. When performing sample calculation per course, the number of 313 students was obtained. Having said that, the access population was 327 students of the following courses: Biomedicine (bachelor's degree), Biological Sciences (bachelor's degree), Biological Sciences (bachelor's degree), Physical Education (bachelor's degree), Nursing (bachelor's degree), Pharmacy (bachelor's degree), Physiotherapy (bachelor's degree), Veterinary Medicine (bachelor's degree), Nutrition (bachelor's degree), Dentistry (bachelor's degree) and Occupational Therapy (bachelor's degree).

Those who were exclusively attending curricular internships were excluded because they remained absent during the data collection period. Data were collected within the HEI, in the educational environment and during class hours. Three researchers from the team entered the classrooms having already made previous contact with the teacher of the discipline and invited the students to participate in the research. The students who indicated interest received explanations about the objective of the study and were instructed about ethical aspects. After signing the Free and Informed Consent Form, they were given the data collection instrument for completion and the team of researchers then waited, making available the time that the participants deem necessary for completion. This procedure was subsequently performed in all classrooms corresponding to eligible classes.

Data were collected through the following self-administered instruments: sociodemographic questionnaire produced by the authors, involving the following variables: date of birth, gender, marital status, presence of children, undergraduate course, religion and current period. The Instrument for Assessing Tolerance in Friendship Relations (ATRA) was also used, built to assess tolerance in friendship relationships.¹⁴ Its construction is based on semantic analysis of evidence, guided by France and Schelini¹⁵ and based on the process of constructing psychometric scales by Reppold et al.¹⁶

The instrument consists of 21 items arranged on a five-point likert scale, in which: 1 - I totally agree; 2 - partially agree; 3 - I do not agree or disagree; 4 - I

partially disagree; and 5 - I totally disagree. From the sum of the scores indicated in each item, the scores of the degree of friendship tolerance are obtained, and the lower the score, the greater the tolerance of friendship relationships in the academic scope. From the general mean for the population surveyed, the friendship tolerance is dichotomized in: high tolerance (when the individual has a score lower than the population mean) and low tolerance (when the individual has a score higher than the population mean). The highest average items represent the situations in which there is less tolerance in the students' friendship relationships.

For data organization and analysis, a database was built in the Excel program (Office 2018) and the Statistical Package for Social Science (SPSS) program, version 20.0, was used. The quantitative variables were exposed in descriptive measures: minimum and maximum values, mean and standard deviation. Simple linear regression was used, with a backward method for selecting variables, Adjusted R² as model adjustment indicator and ANOVA (F Test) as a significance indicator. The partial correlation and the respective p-value were used as exclusion criteria for variables in the tested models. In each model, variables with the lowest partial correlation were excluded until obtaining the final model. The effect of each predictor on the outcome "tolerance level in friendship relationships" was evaluated using Beta values, adopting statistical significance of 5%. The assumptions of linearity of the relationships and normality of errors to define the final model were evaluated. The residuals (difference between observed and expected value) were evaluated in each model using the Variance Inflation Factor (VIF). Cronbach's alpha was applied to analyze the reliability of the applied instruments.

This study is part of a matrix research entitled "Relationship of friendship in the process of tolerance during the academic period". The project complied with the Guidelines and Regulatory Standards of Research Involving Human Beings (CNS Resolution 466/12). After obtaining the authorization for data collection in the researched institution, the research was submitted for consideration by the Ethics Committee on Research with Human Beings (CEP) of the União de Goyazes College, with CAAE n° 20070219.5.0000.9067 and approval opinion no. 3,570,493.

Results

According to Table 1, there is a predominance of female (69.7%), single (79.2%), Catholic (43.5%) and evangelical (25.4%) students, attending Dentistry (24.8%), Physical Education (16.2%), Nursing (11.0%) and Physiotherapy (10.7%). In addition, there is a concentration of students enrolled in the 2nd (12.2%), 4th (31.5%), 6th (16.2%) and 8th (12.5%) periods of the course and with a mean age of 22.5 years (SD: 5.31 years). To verify internal consistency, cronbach's Alpha analysis was performed for this specific observation, demonstrating a value of 0.66 for the 21 items of the ATRA, which attests satisfactory reliability to the instrument and validity of these results.

Table 1. Sociodemographic characterization of university students. Brazil. 2019.

Sociodemographic variables *		n(%)
Sex	Female	228(69,7%)
Marital status	Single	259 (79,2%)
	Married	53 (16,2%)
Religion	Catholic	152 (46,5%)
	Evangelical	83(25,4%)
	Christian	34 (10,4%)
	No religion	20(6,1%)
Course	Dentistry	81 (24,8%)
	Physical Education (Bachelor's Degree)	53(16,2%)
	Nursing	36(11,0%)
	Physiotherapy	35(10,7%)
Course period	2nd period	40 (12,2%)
	4th period	103 (31,5%)
	6th period	53 (16,2%)
	8th period	41 (12,5%)
		Minimum-Maximum
Age(years)	17,0 - 47,0	Mean(Sd**) 22,5(5,31)

*Only the predominant categories for each variable are presented.

** Standard deviation

Table 2 shows data on the evaluation of tolerance in friendship relationships among university students. There was a predominance of the low level of tolerance in friendship relationships (53.2%) besides the highest average item being "I fight frequently with my friends" (3.97), followed by maintaining relationships for convenience; live better with friends who have the same tastes; and accepting excessive games that friends make are situations in which students are more tolerant in their friendship relationships.

Table 2. Evaluation of tolerance in friendship relationships between university students. Brazil, 2019.

Tolerance in Friendship Relations			
General Classification		n	%
Low		172	53,2
High		155	47,4
Total		327*	100%
Highest average items in ATA			
Item		Mean	Sd**
I fight often with my friends.		3,97	1,23
I fight more with the friends I see often.		3,79	1,36
I've maintained/maintained relationships for convenience.		3,40	1,52
I live better with my friends who have the same tastes as me.		3,23	1,52
I accept excessive jokes that my friends make to me.		3,12	3,03

* A subject did not respond to the item/ ** Standard Deviation

Table 3 describes the results of linear regression analysis to verify the impact of sociodemographic characteristics on tolerance on friendship relationships in university students. It is verified that the religion, the chosen undergraduate course and the period of the course in which the student is enrolled are factors that contribute to the increase of tolerance to friendship relationships. This model explained 41% of the variance of the outcome, that is, the group of predictors mentioned above explains 41% of the tolerance of friendship relationships in the academic context.

Table 3. Impact of sociodemographic characteristics on tolerance on friendship relationships in university students. Brazil, 2019.

Coefficients*	Beta (β)	T value	P value**
Constant	2,343	23,11	<0,001
Marital Status (Single)	-0,048	-1,099	0,273
Religion	0,057	3,059	0,002*
Undergraduate Course	0,041	6,192	<0,001*
Course Period	0,046	4,125	<0,001*

* Statistically significant association.

** $r^2 = 0.414$; ANOVA (Test F): <0.001.

Discussion

In their studies, Ricoldi and Artes¹⁷ report that about 56% of higher education students are female and attend the areas of health sciences. The religion practiced was also an important factor, since equal beliefs lead to similar interests and opinions, improving tolerance among those who converge religions and thus decreasing among those who differ religiously.¹⁸⁻¹⁹

Regarding the course and the period in which the student is enrolled were also pointed out as important factors. Currently, many courses are characterized by the economic conditions of students, that is, there are courses consisting mostly of higher income students and others by lower-income students. This dichotomy favors social exclusion, a very serious factor for tolerances in academic environments.⁸ Although this aspect was not observed in most of the participants of this study, corroborating the findings of Moraes Filho et al.¹⁴, it is important to highlight the influence of the economic conditions of students on tolerance rates in friendship relationships.

The results of this research indicate worrying situations regarding the importance of friendship in the process of tolerance during the academic period, since 53.2% of the interviewees have low tolerance in friendship relationships. As demonstrated by Souza and Hutz⁶, preserving good relationships of friendship in adulthood is fundamental for social and psychoemotional well-being. Consequently, tolerance to differences can also designate the importance of the process of openness to the other, through differences and questions.²⁰

Nevertheless, the entry into higher education is a transition that brings potential repercussions for the psychological development of young students. Initially, it represents the first important attempt to implement a sense of

autonomous identity through professional choice, a typical task of development in the transition from adolescence to adulthood.^{9,21}

In this investigation, it was verified that fighting frequently with friends; fight more with frequently seen friends; maintain relationships for convenience; live better with friends who have the same tastes; and accepting excessive games that friends make are situations in which students appear to be more tolerant in their friendship relationships. However, in the general evaluation, there is a predominance of low tolerance in friendship relationships (53.2%) in the population analyzed.

As stated by Marsiglia²², in educational environments there is a tendency to meet new people, of various beliefs, cultures and social conditions. It is at this moment that experiences and experiences are shared, creating bonds of friendship. Friendship is conceptualized as a personal and private relationship, which cannot receive imposition of cultural values and norms.⁹ However, such impositions are a present and constant problem in the friendships of adulthood, especially during academic life. Therefore, it is inferable that this is one of the reasons for the low tolerance in friendship relationships observed in this study.

Furthermore, when starting a friendship, the subject progressively knows the essence, character and social aspects of his new friend. However, conflicts of interest may arise, causing disagreements. In addition, people with more intimacy feel more comfortable to express their opinions about others.^{9,23} Corroborating this idea, Moraes Filho et al.⁵ found that friendship relationships considered closer often trigger situations of fights, providing a lower tolerance in friendship relationships among university students. These findings are in line with the results of this investigation, in which the interviewees reported frequent fights with their colleagues. Although there is a lower tolerance in closer friendship relationships, Conte and Fialho² state that conflicts and discussions between friends are natural and important because they improve self-criticism and individual improvement, given that friendship relationships do not seek to nullify differences, but rather to favor diversity.

Thus, the interviewees reported not maintaining their friendship relationships only for convenience, and therefore not a primary factor of tolerance. However, in this ite was observed an average of 3.4% in this research, against 30% of the results of another investigation.¹⁴ The same study points out that the participants have few worn relationships, whose characteristic is the abandonment of pleasant feelings and the emergence of individuals blocked for new opportunities throughout life. Still, convenience relationships may have a satisfactory tolerance rate. Nevertheless, some requirements in the relationship become absent, hindering a totally healthy relationship, with no stimuli, companionship, reciprocity and emotional security, important elements for the development of intimacy.

It is worth mentioning that part of the interviewees lives better with friends who have the same taste or interest. Thus, the chosen undergraduate course, religion, the largest number of children and, mainly, the interest in staying in the course are predisposing factors for high tolerance in friendship relationships.^{5,9}

Souza and Hutz⁶ state that adult friendships are characterized not only by the homogeneity of personality traits, but also by common interests. These interests lead to increased shared activities, trust, frequency of interaction,

duration, acceptance, and respect. It is suggested that the lower average of people who prefer to interact with individuals with the same interests decreases tolerance rates in the academic environment. However, Duarte and Souza²³, like Garcia and Rangel²⁴, emphasize the importance of interacting with individuals of different personalities, allowing the universality of ideas. This interaction decreases racial, social, ethnic, religious prejudices, increasing tolerance rates during the academic period.

It has also been shown that an average of 3.12% of the participants in this investigation tends to accept excessive play from their friends, in a healthy way or not, consequently, the acceptance or rejection of such games is directly associated with the process of intimacy, which refers to the sensitivity to the states and needs of the other, providing openness to express honest words, make jokes, issue controversial opinions and share feelings in common.^{2,22} Nevertheless, it is worth noting that there is a very fine line between arrogance and sincerity in these bonds, although intimacy is high in some relationships, many games can hurt others emotionally.²²

Thus, an unfavorable academic climate constitutes a source of vulnerabilities to the integration and security of the educational community; factors such as the existence of positive expectations that contribute to the realization of academics, good classroom atmosphere, motivated academic staff, active involvement of students and good social relationships between peers have a beneficial impact on the academic climate and on the effectiveness of the teaching and learning process, allowing a walk with less suffering and assisting in the search for strategies that mitigate negative confrontations for mental health during the academy.^{7,25}

The limitation of the research consists in the evaluation only of students from a private HEI. Therefore, it is not known whether the data found in this study will be similar in students from other academic scenarios, with divergent sociodemographic factors and dissimilar educational practices. Moreover, there are not many investigations with this approach in the scientific literature, which limited the broad discussion and debate on the subject. Moreover, it is of fundamental importance to study relationships during the academic period, because these university students in a recent future will work together with other professionals and the establishment of effective bonds and mutual respect are of fundamental importance in the development of daily work practices, providing a harmonious environment with high user-friendliness.

Conclusion

It was observed that the students have low tolerance in friendship relationships. The main findings suggest that two factors are important for maintaining tolerance: sociodemographic characteristics and interpersonal relationship between friends. In these cases, intimacy, socioeconomic conditions, undergraduate course and common interests were the most important factors for understanding the tolerance process.

Moreover, good relationships of friendship are indispensable for the promotion of feelings of well-being and quality of life. Similarly, quality friendship relationships are fundamental for various modalities of life, such as during professional practice, love, family and academic relationships. Living

with people of diverse personalities, cultures and beliefs and sharing experiences and trajectories, provides high tolerance in friendship relationships and the development of behavioral skills essential for living in society.

In this sense, friendship relationships play a fundamental role in the formation of a social and psychological support network that the student needs in the academic context, as well as assists in the formation of empathic, cohesive and tolerant individuals regarding the applicability of their actions and improvement of relationships.

As a future perspective, it is understood that the data obtained on tolerance and friendship in the academic environment can be compared to data referring to other cultures and analyzed based on proposed theoretical models.

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Engagement of Family Health Strategy workers during pandemic the Covid-19

Engajamento de trabalhadores da Estratégia Saúde da Família durante a pandemia da Covid-19

Compromiso de los trabajadores de la Estrategia de salud de la familia durante la pandemia de Covid-19

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RESUMO

Objetivo: Avaliar o engajamento nos trabalhadores da ESF do município de Palmas (TO) durante o enfrentamento da Covid-19. **Método:** Estudo transversal, quantitativo, realizado com 87 trabalhadores da Estratégia Saúde da Família, de Palmas - TO, entre dezembro de 2020 e fevereiro de 2021. Foi utilizado um questionário para identificação do perfil dos participantes e a Escala de Engagement no Trabalho de Utrecht (UWES) e realizada as análises descritivas e inferenciais pertinentes. **Resultados:** Dos 87 trabalhadores, 83,92% são mulheres, com idade média de 40 anos, tempo de formação profissional médio de 10,75 anos e tempo médio de atuação na ESF de 8,64 anos. As médias encontradas para o Engagement foram: 4,36 para Vigor, 4,71 para Dedicção, 4,15 para Absorção e 4,38 para o Escore Geral. Verificou-se significância estatística apenas para “considerar o trabalho estressante”, onde os participantes que consideram o trabalho estressante apresentaram menores médias na dimensão Vigor e no Engajamento Profissional. **Conclusão:** Os participantes apresentaram alto nível de Engajamento Profissional, sendo que os que consideram o trabalho estressante, apresentaram menores índices de Vigor e Engagement, demonstrando que é necessário intervir no cenário para manutenção e melhoria do Engajamento Profissional.

Descritores: Saúde do Trabalhador; Engajamento no Trabalho; Estratégia de Saúde da Família, Covid-19.

ABSTRACT

Objective: To evaluate the engagement of Family Health Strategy (FHS) workers in the city of Palmas (TO) during the Covid-19 confrontation. **Method:** Cross-sectional study, with a quantitative approach, carried out with 87 workers of the FHS, from Palmas - TO, through non-probabilistic sampling between December 2020 and February 2021. A questionnaire was used to profile the workers, participants and the Utrecht Work Engagement Scale (UWES) and performed descriptive and inferential analyzes relevant to the study. **Results:** Of the 87 workers, 83.92% are women, with an average age of 40 years, average length of professional training of 10.75 years and average length of experience in the FHS of 8.64 years. The means found for Work Engagement were: 4.36 for Vigor, 4.71 for Dedication and 4.15 for Absorption, and 4.38 for the General Score. In the association of Engagement dimensions and sociodemographic and occupational characteristics, statistical significance was found only with the variable "considering work stressful", where participants who consider work stressful had lower averages in the Vigor dimension and in Work Engagement. **Conclusion:** Participants showed a high level of Work Engagement, and those who consider the work stressful had lower Vigor and Engagement rates, demonstrating that it is necessary to intervene in the scenario to maintain and improve Work Engagement.

Descriptors: Occupational Health; Work Engagement; Family Health Strategy; Covid-19.

RESUMEN

Objetivo: Evaluar el involucramiento de los trabajadores en la Estrategia Salud de la Familia (ESF) en la ciudad de Palmas (TO) durante el enfrentamiento Covid-19. **Método:** Estudio transversal, cuantitativo, realizado con 87 trabajadores de la ESF, Palmas - TO, entre diciembre de 2020 y febrero de 2021. Se utilizó un cuestionario para identificar el perfil de los participantes y la Escala de Compromiso Laboral de Utrecht (UWES) y realizó los análisis descriptivos e inferenciales pertinentes. **Resultados:** De los 87 trabajadores, el 83,92% son mujeres, con una edad media de 40 años, una duración media de formación profesional de 10,75 años y una experiencia media en la ESF de 8,64 años. Los promedios encontrados para Engagement fueron: 4,36 para Vigor, 4,71 para Dedicación, 4,15 para Absorción y 4,38 para Puntaje General. La significación estadística se encontró solo para “considerar el trabajo estresante”, donde los participantes que consideran el trabajo estresante tuvieron promedios más bajos en la dimensión Vigor y en Compromiso Laboral. **Conclusión:** Los participantes mostraron un alto nivel de Compromiso Laboral, y aquellos que consideran el trabajo estresante tuvieron menores índices de Vigor y Compromiso, demostrando que es necesario intervenir en el escenario para el mantenimiento y mejora del Compromiso Laboral.

Descritores: Salud Laboral; Compromiso Laboral; Estrategia de Salud Familiar; Covid-19.

Introduction

The term "work" refers to any human activity, individual or collective, of a social, complex and dynamic character, which not only allows, but requires different perspectives for its understanding.¹ It can be considered as an essential value to man, playing an important role in the constitution of his self-realization, also contributing to the development of his identity, enabling him to achieve life goals and goals.²

Because they occupy a long period of time in the daily lives of individuals, work can profoundly impact their lives, both positively and negatively.³ Thus, it is necessary that workers are engaged for the proper functioning of organizations, ensuring greater performance, effectiveness, resolution and productivity,⁴⁻⁵ in addition to contributing to personal well-being.

Work engagement is directly linked to the motivation of workers within the institution. It is defined as experiencing high levels of vigor, dedication and absorption, being characterized as the positive and inspiring state of achievement. The individual achieves this phenomenon when he is in good physical, mental and emotional condition in the environment in which he/she works.⁶⁻⁷

For workers' health, engagement becomes an important indicator of physical and mental well-being. Within the Family Health Strategy (ESF) it becomes important in investing efforts and dedication to provide good care to users.

It is known that since the beginning of the COVID-19 pandemic, a disease caused by the SARS-CoV-2 virus, health services demand a greater number of human, material and work resources. This fact has required high performance of workers, resulting in professional wear and tear resulting from increased service, number of workers below the necessary and scarce work materials.⁸

In view of the above, this study is justified by the need to verify work engagement in the ESF in times of pandemic, because through this it is possible to modulate the effects of organizational work on the performance, well-being and overall quality of life of the worker, benefiting both the individual and the organization.⁹

The objective of this study was to evaluate the engagement of the FSF workers in the municipality of Palmas (TO) during the Covid-19 confrontation.

Method

This is a cross-sectional study with a quantitative approach. The research was carried out in the Community Health Centers (CSC), in the municipality of Palmas - TO, which are distributed among eight health territories, according to Ordinance inst No. 518/SEMUS/Gab, of June 14, 2016.¹⁰

The CSC's house the ESF teams, which serve the population of predetermined areas. Data from the Ministry of Health in May 2019 on the coverage of Primary Health Care (PHC) indicate that Palmas (TO) has 67 Family Health Strategy (ESF) teams that provide coverage for 79.20% of the population of 291,855 people.¹⁰

This study was performed by non-probabilistic sampling, for convenience between December 2020 and February 2021. All workers from the ESF of the city

of Palmas- TO, from the following professional categories, community health agent, nursing assistant/technician, oral health assistant/technician, dentist, nurse and physician were invited.

The participants were workers who met the following inclusion criteria: being working during the period of data collection and being a professional of the ESF. Participants who failed to answer more than 30% of the questions of the data collection instruments were excluded from the study. First, it was scheduled, via telephone, with the managers responsible for the CSC the most appropriate day and time to invite the workers of the ESF. On the agreed day, the workers of the ESF were invited to participate in the study, when they were informed about the objectives of the study, guarantee of confidentiality and other aspects, following the current legislation on research with human beings. Those who verbally agreed to participate in the study received the questionnaire together with a Free and Informed Consent Form (TCLE) in an envelope, being combined day and time to return them filled out, exclusively for the research team, seeking to ensure reliability and confidentiality. On the scheduled date, the researchers returned to seek the completed questionnaires, and up to three attempts were established, since some workers had not been able to complete the questionnaire until the combined date for return.

For data collection, the following instruments were used: Profile Questionnaire of Research Participants and Engagement Scale at Work in Utrecht (UWES).

The Profile questionnaire of the Research Participants involved questions about age, gender, marital status, personal income, participation in the family's economic life, education/professional education, time of training in the current area, position, time of work in the current team, type of work contract, average hours worked per week, existence of another employment relationship and if it is considered stressful work.

The Utrecht Work Engagement Scale (UWES), used to assess the level of work engagement, was translated and validated for Brazil by Vasquez, 2015.⁵ The UWES is composed of 17 items and has a factorial structure in three dimensions: vigor, dedication and concentration. In work engagement, evaluated by 17 questions, distributed on a Likert scale from seven points from 0 to 6, ranging from never to always. The total engagement score was obtained by the sum of all the answers indicated, divided by the total number of items. Engagement is constituted from a behavioral-energetic item (vigor), an emotional item (dedication), and the cognitive item (absorption).⁵

The data were entered in the Software Statistical Package for the Social Sciences for Windows (SPSS®) version 22.0, with independent double typing. After correcting errors and inconsistencies, descriptive and inferential analyses relevant to the study were performed. The profile of the ESF workers and the Engagement scale were treated with simple descriptive analysis. In the inferential analysis, we used the Mann-Whitney U test for the associations between engagement dimensions and dichotomous gender categorical variables, more than one work bond and consider stressful work; the Kruskal Wallis test for association with the variables with three or more categories: marital status, participation in the economic life of the family, schooling, position and type of contract. The results with p and $0.05 \leq$ statistically significant. Pearson's correlation was used to analyze the associations of construct dimensions with

quantitative variables age, income, time of formation in years, time of action in the Family Health Strategy in years and average hours worked per week. To order the magnitude of the correlations, we considered the values of correlations between 0.30 and 0.50 as moderate and, above 0.50, strong.¹¹

Data were collected after authorization from the Research Project Evaluation Commission of the Municipal Health Secretariat of Palmas (SEMUS) - TO and approved by the Research Ethics Committee (CEP) of the Federal University of Tocantins (UFT) on November 1, 2019 (Opinion 3,677,932 - CAAE 21331419.3.0000.5519).

Results

The study included 87 fsf workers in the city of Palmas-TO, with a mean age of 40 years, with a minimum age of 24 years and a maximum of 58 years. Personal income ranged from R\$ 1,100 to 15,000 reais, with an average professional training time of 10.75 years and average time of activity in the ESF of 8.64 years (Table 1).

Table 1- Distribution of workers of the Family Health Strategy according to the variables age, personal income, time of professional training and time of work in the ESF. Tocantins, 2020/2021.

	Age	Personal Income	Time of vocational training in years	Time of operation in the ESF in years
Mean	40,02	3.829,04	10,75	8,64
Standard deviation	9,515	2.656,47	6,99	7,51
Minimum	24	1.100,00	0,33*	0,17**
Maximum	58	15.000,00	28,17	22,00

* Minimum 4 months

** Minimum 2 months

Table 2- Categorization of family health strategy workers according to demographic and occupational qualitative variables. Tocantins, 2020/2021.

Variables	n=87	%
Sex		
Female	73	83,91
Male	13	14,94
Didn't answer	1	1,15
Marital status		
Single	27	31,03
Married or stable marriage	46	52,87
Divorced, separated or widowed	14	16,09
Participation in the Economic Life of the Family		
It is responsible for the sustenance	37	42,53
Partially contributes	43	49,42
Contributes sporadically	4	4,60
It does not contribute	2	2,30
Didn't answer	1	1,15

Education		
Incomplete high school	2	2,30
Complete high school	41	47,13
Full top	29	33,33
Graduate	15	17,24
Position		
Nursing professionals	42	48,28
Community health agent	28	32,18
Oral health professionals	13	14,94
Didn't Answer	4	4,60
Type of Employment Contract		
CLT	3	3,45
Statutory	40	45,97
Fixed-term contract	16	18,39
Other	3	3,45
Didn't answer	25	28,74
Amount of Work Link		
One	68	78,16
Two	14	16,09
Three	3	3,45
Four	1	1,15
Didn't answer	1	1,15
Considers Work Stressful		
Yes	42	48,28
No	40	45,98
Didn't answer	5	5,75

Table 2 contains socioeconomic data from the research participants, showing that the majority female participation (83.92%), and more than half have married marital status or in stable union (52.87%), and the majority are responsible or partially contribute to family economic life. On education, most participants have completed high school or higher education, occupying the position of nursing professionals (48.28%), who correspond to nurses and nursing technicians. It was found that 45.97% have a labor relationship as stsandaries, most of which have only one work relationship (78.16%). When considering the stressful work, 48.28% answered affirmatively.

An average of 44.93 hours worked per week was found, ranging from 30 to 64 hours, with a standard deviation of 9.25 hours.

Table 3- Descriptive analysis of Professional Engagement in Family Health Strategy workers. Tocantins, 2020/2021.

	Vigor	Dedication	Absorption	Professional Engagement
Mean	4,36	4,71	4,15	4,38
Standard deviation	1,22	1,15	1,18	1,11
Minimum	1,33	1,40	1,50	1,41
Maximum	6,00	6,00	6,00	6,00

Table 3 includes data related to professional engagement and its dimensions: Vigor, Dedication and Absorption, evaluated on a likert scale from 0 to 6, with averages 4.36, 4.71 and 4.15, respectively. The average found for Professional Engagement was 4.38.

Table 4- Association between the sociodemographic and occupational variables of family health strategy workers and the dimensions of Professional Engagement. Tocantins, 2020/2021.

Variables	Vigor	Dedication	Absorption	Professional Engagement
Age	0,120	0,048	0,200	0,134*
Sex	0,821	0,995	0,629	0,869**
Marital status	0,504	0,307	0,670	0,465***
Income	-0,189	-0,180	-0,154	-0,182*
Participation in the economic life of the family	0,745	0,970	0,595	0,786***
Schooling	0,820	0,197	0,553	0,476***
Training time (annual)	0,022	-0,040	0,103	0,034*
Position	0,168	0,055	0,082	0,055***
Time of operation in the ESF (annual)	-0,233	-0,228	-0,175	-0,226*
Type of Employment Contract	0,483	0,382	0,684	0,563***
More than one Job Link	0,161	0,110	0,288	0,109**
Average hours worked (weekly)	-0,060	-0,028	0,016	-0,025*
Considers Work Stressful	0,000	0,240	0,052	0,010**

* Pearson correlation

**U Mann-Whitney

***Kruskal-Wallis

In the association of engagement dimensions and sociodemographic and occupational characteristics, statistical significance was found only with the variable "consider stressful work", where participants who consider stressful work presented lower averages in vigor dimension and professional engagement. It is also notable for the absorption dimension that presented $p=0.052$, with lower averages for those who consider the work stressful.

Discussion

The study showed predominant participation of women, with active economic participation in the family context and marital status with stable union. This may be linked to stereotyped professionalization by relating the role of women with care, with emphasis on nursing, which presents itself as the first female university profession in Brazil, ensuring public health programs and performance of health services.¹² In addition, it is real the need for more than one family member to be inserted in the labor market, in the constitution of family income.¹³

Regarding the age group of the workers, it was observed that this is a more experienced team with an average age of 40 years, a result similar to another study developed with the ESF.¹⁴ The work capacity is expressed by the average working time in the ESF of about 8 years and 10 years of professional training, denoting that in addition to experience the workers know their work process and the community where they are inserted, which contributes productively in the work process of the ESF.

Following the recommendations of the Ministry of Health, the FSF team of the place where the study was developed is composed of CHA, nursing professionals (nurse and nursing assistant/technician), oral health professionals (dentist and oral health assistant/technician) and physicians. All were invited to participate in the research, but the workers who answered the questionnaires the most were nursing and CHA, with no participation of physicians.

The ESF is the main door to coping with the Covid pandemic¹⁹, since about 80% of the cases are mild and moderate, causing the user to seek primary care as a first access.¹⁵ Thus, the workers of the ESF have a significant role in this confrontation, due to the knowledge of the territory of action and bond with users, team relationship, search for comprehensive care, monitoring of the most vulnerable and the care and follow-up of suspected respiratory symptomatic users and mild cases of Covid¹⁹, being extremely relevant the services provided, both for pandemic containment and for non-worsening of the disease.¹⁵

In this context, the ESF team had to change its work process, starting to treat mostly patients with suspicion or confirmation of Covid-19. Like other workers, the CHA adjusted their work according to the needs of the population, starting to respond to the new demands that arose due to the emergency situation, being necessary acquisition of new knowledge, improvement of practices and use of new tools, such as information and communication technologies and social media.¹⁶

With the temporary suspension of home visits, many CHA began to actively contribute to the screening/reception of suspected patients, consequently being more exposed to stressful factors, because they were performing an activity that was not common to their daily lives, besides facing the imminent risk of contamination by Covid-19.

Regarding the workload of the workers, the reported average was 44 hours per week, however, the place where the study was conducted recommends the workload of 30 to 40 hours of work, depending on the type of contract, respecting what is legally determined for professional attributions.¹⁷ The average workload was higher due to overtime caused by the pandemic and the presence of more than one link for some workers. It is noteworthy that most of the WORKERS of the ESF participating in the study have only one employment relationship.

Considering stressful work, the data found in which about half of the participants consider work stressful and the other half as non-stressful, since, with the pandemic, there was an increase in the demand for services provided,⁸ and consequent intensification of the workload, in addition to the risk of contamination. This is a positive aspect, since even with a higher demand and at the center of a pandemic, many workers did not consider their work stressful.

In relation to Work Engagement and its dimensions, vigor concerns the energy and strength involved in the exercise of work, persistent even when

things do not work out; dedication characterizes the worker's connection with his/her work activity, in which he attributes meaning and purpose to what he performs professionally and absorption is the state of immersion and concentration in the task, where the person forgets the external context, loses the notion of the passage of time and is fully and pleasantly linked to the activity he is performing.¹⁸⁻¹⁹

The present study showed high scores in Vigor, Dedication, Absorption and consequently in the General Score of Professional Engagement. A similar study,²⁰ conducted before the Covid-19 pandemic, with FS workers from two municipalities of São Paulo, also found medium or high levels of work engagement, and the municipality with 100% coverage by the ESF presented very similar rates to those found in Palmas (TO), which also offers total coverage by the ESF.

It is worth mentioning that Vigor and Professional Engagement showed a negative association with considering stressful work, in addition to absorption, which presented values very close to those considered statistically significant.

The pandemic has strengthened the bond of the FS worker, which may mean greater vulnerability to suffering, because it experiences more intensely the feeling of helplessness in the face of the health problems faced and the significant number of deaths resulting. Some causes of this vulnerability are fear and threats to the integrity of one's own health and the non-recognition of efforts for the work done. In this scenario, workers are subjected to occupational stress, resulting from physical, psychological and social risks at work.²¹ Thus, stress can negatively influence the willingness to perform work activities, as well as on work engagement.

Moreover, the social, economic and psychological difficulties resulting from the pandemic led workers to face high levels of insecurity at work, and may impact their engagement.²² In this aspect, this study demonstrated the resilience of workers in the midst of the challenges caused by coping with the Covid pandemic¹⁹ in the ESF, knowing that workers with high levels of engagement have better work performance, have better levels of health and experience positive emotions more frequently, thus creating good personal resources that enable them to encourage other professionals.²³

Conclusion

The sociodemographic profile of THE workers continues to follow national studies, with predominance of female workers, with stable union and active participation in the family economy. The workers who contributed the most to the study were nursing professionals and CHA.

The study showed a satisfactory average, with high results in Vigor, Dedication, Absorption and consequently in the overall professional engagement score. In the association of socio-demographic and occupational characteristics with the dimensions of Professional Engagement, "consider stressful work" resulted in lower averages for vigor and the overall professional engagement score.

Although positive aspects have been found in relation to the variables related to engagement, denoting positive evaluation of the workforce, it is necessary to intervene in the critical points for maintenance and improvement of

good levels of Vigor, Dedication and Absorption. Further studies on the impact of the pandemic on THE WORKERS are still needed.

As limitations, we highlight the very context of a pandemic that hindered access to workers due to the high demands, harming the number of the sample reached.

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COVID-19 Monitoring: Evaluation of a Municipality Located in the State of Paraná

Monitoramento COVID-19: Avaliação De Um Município Localizado no Estado do Paraná

Monitoreo COVID-19: Evaluación De Un Municipio Ubicado En el Estado de Paraná

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REVISIA

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RESUMO

Objetivo: descrever as ações de monitoramento e avaliar o impacto desta atividade durante a situação da pandemia. **Método:** trata-se de uma pesquisa epidemiológica observacional do tipo descritiva, buscando compreender o impacto, das estratégias de monitoramento no acompanhamento dos casos suspeitos e/ou confirmados pela Vigilância Epidemiológica. **Resultados:** houve o monitoramento de usuários com suspeita ou confirmação de síndrome gripal. Evidenciou-se a importância do monitoramento para o município, pois após a busca ativa e identificação dos sintomas, possibilitou o cuidado centrado nas diretrizes assistências do SUS. **Conclusão:** o monitoramento se mostrou eficaz, uma vez que a maior parte dos usuários se recuperaram da infecção e tiveram seus casos acompanhados. **Descritores:** COVID-19; Pandemias; Monitoramento Epidemiológico.

ABSTRACT

Objective: to describe the monitoring actions and assess the impact of this activity during the pandemic situation. **Method:** this is an observational epidemiological research of the descriptive type, seeking to understand the impact of the monitoring strategies in the monitoring of suspected cases and / or confirmed by the Epidemiological Surveillance. **Results:** there was a monitoring of users with suspected or confirmed flu syndrome. We highlighted the importance of monitoring for the municipality, because after the active search and identification of symptoms, it enabled care centered on SUS assistance guidelines. **Conclusion:** the monitoring proved to be effective, since most users recovered from the infection and had their cases followed up. **Descriptors:** COVID-19; Pandemics; Epidemiological Monitoring.

RESUMEN

Objetivo: describir las acciones de monitoreo y evaluar el impacto de esta actividad durante la situación de pandemia. **Método:** se trata de una investigación epidemiológica observacional descriptiva, que busca comprender el impacto de las estrategias de monitoreo en el seguimiento de casos sospechosos y/ o confirmados por Vigilancia Epidemiológica. **Resultados:** se monitoreó a los usuarios con sospecha o confirmación de enfermedad similar a la gripe. Resaltamos la importancia del seguimiento para el municipio, porque luego de la búsqueda activa e identificación de síntomas, permitió una atención centrada en las pautas asistenciales del SUS. **Conclusión:** el seguimiento demostró ser eficaz, ya que la mayoría de los usuarios se recuperaron de la infección y se les dio seguimiento a sus casos. **Descritores:** COVID-19; Pandemias; Seguimiento epidemiológico.

Introduction

At the end of 2019, hospitals in Wuhan (China) received patients diagnosed with unidentified viral pneumonia.¹ In order to discover the etiologic agent of the disease, 26 types of existing tests were carried out to identify possible causes of the disease, all of which worked. In negative. As a result of this event, the Chinese Center for Disease Control initiated an epidemiological investigation and in January 2020 the genome of a new coronavirus called SARS-CoV-2 was identified, as it is a virus of the coronavirus family and its first record is dated at the end of 2019, the disease caused by it became known as COVID-19¹⁻².

After identification on January 3, 2020, the World Health Organization (WHO) confirmed the circulation of the new coronavirus and on January 21, the United States reported its first case, at the end of January, several countries had already confirmed case imports, including the United States, Canada and Australia, causing the WHO to announce the pandemic as an international emergency³. In Brazil, on February 22, the first suspected case was notified, but without records of confirmed cases. On February 26, the first case of COVID-19 was confirmed in the country, a male patient who traveled to Italy⁴⁻⁵.

On the national scene, suspected and confirmed cases of COVID-19 are monitored by the Epidemiological Surveillance (EV) of the Unified Health System (SUH), which is structured based on the Epidemiological Surveillance Guide of the Ministry of Health (MH), and its function is to notify, record, monitor, manage and adopt preventive measures⁶.

The SUH, constitutionally defined, was created with the objective of guaranteeing health to all, universally and free of charge, together with the reduction and prevention of health problems. This is due to its hierarchical service network that follows the principles of: decentralization, regionalization and popular participation. In addition to its objective, it is the responsibility of the SUH to carry out actions related to health surveillance⁷⁻⁸.

Health surveillance is regulated by Law No. 8080/1990 and consists of a set of actions aimed at the recovery and rehabilitation of the population's health. One of the functions performed by this organ is the Acute Respiratory Syndromes Surveillance System, whose focus includes providing guidance on the simultaneous circulation of various respiratory viruses⁹.

The way in which epidemiological surveillance works in the context of the COVID-19 pandemic in Brazil is based on carrying out actions that consist of notification, monitoring and adoption of preventive measures in the national territory and the municipal and state health departments are responsible for carrying out the technical activities related to monitoring⁹.

In São José dos Pinhais (SJP), a municipality in the Metropolitan Region of Curitiba (Capital of the State of Paraná, located in the southern region of Brazil), a municipality that is the setting for the study of this research, epidemiological surveillance follows the precepts established by the MH. The VE receives notifications from all health institutions regarding suspected and confirmed cases, and monitors the signs and symptoms presented by the subjects for a period of 14 days after the onset of symptoms, considering the onset reported by the user of the service. In case of need for referral to health care, the Municipal Health Department regulates the flow in accordance with the established protocol.

This monitoring action is essential to verify the evolution of clinical conditions, as well as the adoption of sanitary measures for the municipality. Monitoring of suspected or confirmed patients for COVID-19 in SJP is carried out by health professionals, physicians, nurses, physiotherapists and pharmacists. To provide greater support for carrying out this monitoring, students in the last two years of the medical course and the last year for other courses in the health area are also authorized to carry out the monitoring.

Considering the importance of monitoring actions for the follow-up and control of COVID-19 cases, the objectives of this paper are: to describe the monitoring actions, evaluate the impact of this activity during the pandemic situation in the municipality of SJP, as well as list the main signs and symptoms reported by patients followed in this activity.

Method

Descriptive observational epidemiological research, seeking to understand the impact of monitoring strategies and the variables involved in monitoring these patients. Suspected and confirmed cases of COVID-19 in the period from March 15th to May 11th in the city of SJP were considered for the report of the series of cases addressed in this study related to the monitoring strategy.

São José dos Pinhais is a city close to the capital of Paraná. The process of epidemiological surveillance of compulsory notification diseases and injuries is coordinated by the Department of Protection and Surveillance. During the period from March 15th to May 11th, part of the monitoring was carried out at the Department of Regulation of the Municipal Health Department of SJP.

Notification is carried out by Hospitals and Health Units in the Metropolitan Region of Curitiba, based on the document standardized by the State Department of Health or on the request for the COVID-19 test, which includes identification data (Name, cpf, date of birth, ethnicity, address and occupation), onset of symptoms, chronic diseases and history of contact with a suspected/confirmed case. Afterwards the notification starts the monitoring activities

The monitoring protocol was prepared based on epidemiological data requested by the Ministry of Health, being adapted to local needs and including topics on risk classification/monitoring of suspected/confirmed cases. People who had any symptoms of flu-like illness or who had contact with a suspected/confirmed case of COVID-19 were monitored.

Cases, both suspected and confirmed, were monitored every 24 or 48 hours, depending on the severity of the patient. Cases over 65 years old, pregnant women, smokers and subjects diagnosed with: diabetes, hypertension, lung, kidney and liver diseases, in addition to individuals in situations of obesity were considered vulnerable and monitored every 24 hours. Those with severe symptoms, regardless of age and possible comorbidities, were monitored every 24 hours. If not, all situations mentioned above and had mild symptoms were monitored every 48 hours.

Due to the scarcity of tests at the beginning of the pandemic, users with suspected COVID-19 were removed from their work activities for 14 days and maintained the same precautions adopted for confirmed cases. Over time, a

quick test (from the 7th day of symptom onset) and nasopharyngeal swab (from the 3rd day of symptom onset) were scheduled when users clinically reported symptoms considered severe. If the test was negative, the case was discarded by epidemiological criteria, if the result was positive, monitoring was maintained until the end of the 14-day period.

The cases were monitored through a telephone call, according to the monitoring interval established for each user. The questions asked were based on the symptoms that the patient was showing on the current day, in case of confirmed patients, their relatives who had symptoms were also monitored. Monitoring ended after the 14th day from the date of onset of the first symptoms and when the user no longer had any symptoms, otherwise, monitoring continued until the patient became asymptomatic.

Upon receipt of the notification form issued by the Health Units and Hospitals, epidemiological surveillance quantified the case as a suspect. Except for those users who had undergone the test, in this case, if the result was positive, it was notified as a confirmed case, a negative case was quantified and discarded as it did not meet the epidemiological criteria. During the monitoring of a suspected case, its clinical evolution was constantly updated. Relatives of confirmed cases who developed symptoms were instructed to seek care and quantified as suspected cases.

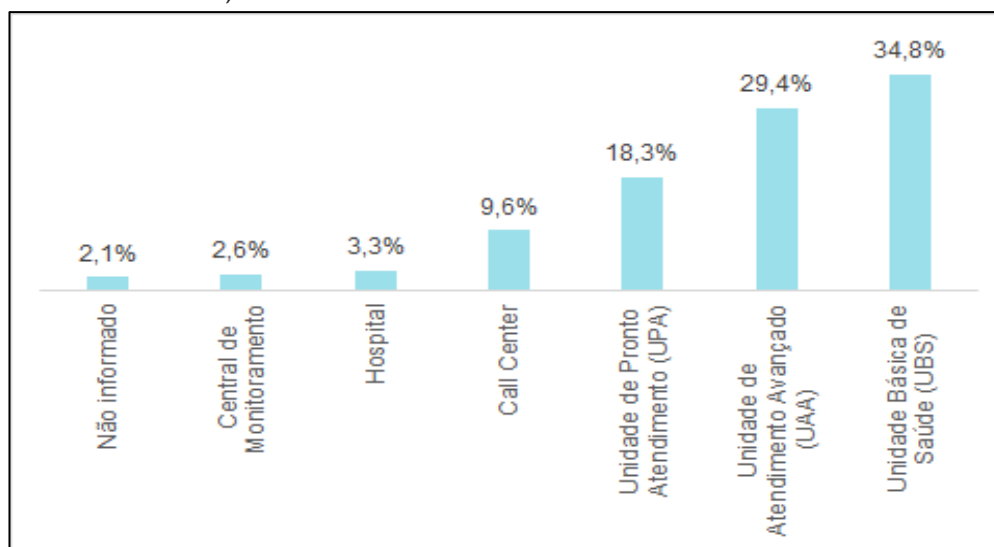
In this study, an analysis of temporal distribution by epidemiological week of symptom onset and sources of notification was performed, including: public health units and private/affiliated clinics, comparing the cases reported between epidemiological weeks 3 and 11 (before the detection of transmission of the first case of COVID-19 in the municipality) and weeks 4 and 11, when community transmission was established.

The expanded research project entitled "Covid-19: profile of care via the VICTÓRIA platform - Paraná and epidemiological profile of patients treated in the different health regions of the State of Paraná" was submitted and approved by the National Research Ethics Commission via the platform Brazil (with opinion No. 4,087,832).

Results

In the aforementioned period, 705 users with suspected or confirmed flu-like illness were monitored. Of these, 15 (2.1%) notifications came without the place of origin, 18 (2.6%) were carried out through the monitoring center, 23 (3.3%) originated in hospitals, 68 (9.6%) were performed by the municipal Call Center, 129 (18.3%) originated from the Emergency Care Unit (UPAs), 207 (29.4%) came from the Advanced Care Unit (UAA) and 245 (34.8%) had origin in the Basic Health Units (UBS), as shown in Figure 1.

Figure 1 - Origin of notifications in the Municipality of São José dos Pinhais. Paraná, 2020.



Source: Municipal Health Department, 2020.

After receiving these notifications, 676 (95.9%) of users were found and monitored. However, 29 (4.1%) did not respond to contact attempts, and it was necessary to carry out an active search to find out the status of this user. The active search took place through the UBS, where the professionals would go to the residence informed at the time of the consultation. to update user data. As shown in the Table 1.

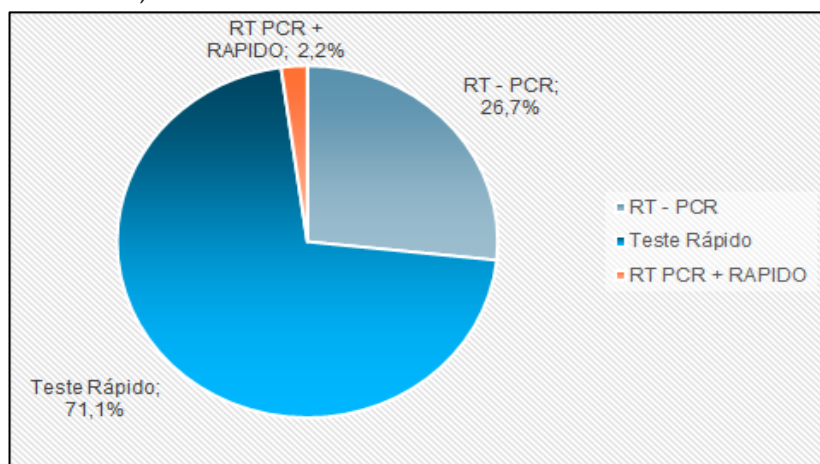
Table 1 - Users monitored after notification in the Municipality of São José dos Pinhais. Paraná, 2020.

Notifications	%	n
Monitored Users	95,9%	676
Users who have not responded to contact attempts	4,1%	29

Source: Prepared by the authors, 2020.

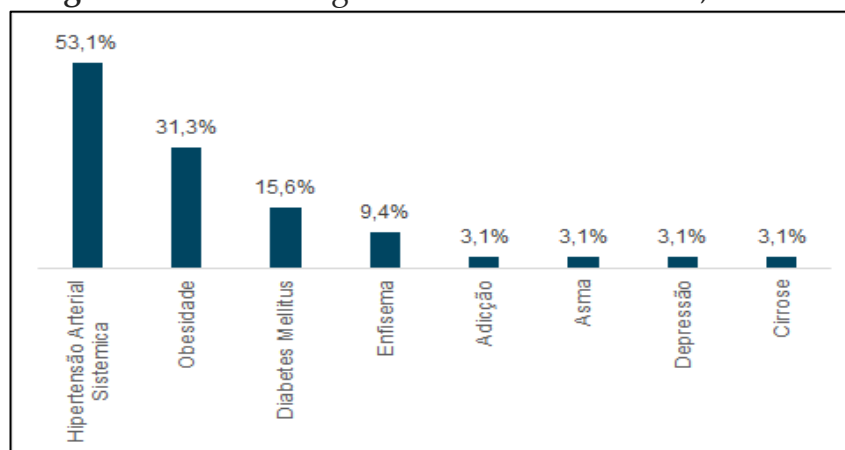
As there were few tests available at the beginning of the pandemic, only 45 users underwent test collection, 12 (26.7%) users collected RT-PCR, 32 (71.1%) collected rapid test after the 7th day of symptom onset and 1 user collected both, as shown in the Graph 2.

Figure 2 - Types of test collection for COVID-19 in the municipality of São José dos Pinhais. Paraná, 2020.



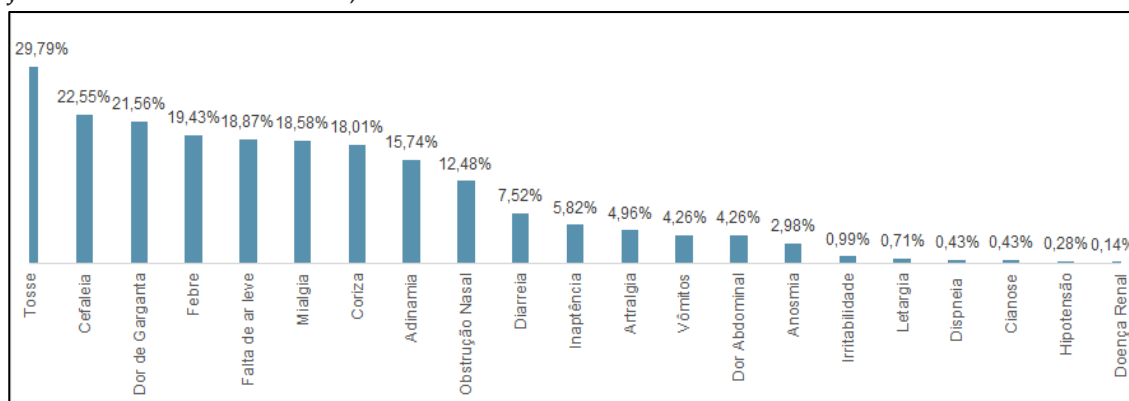
Regarding pre-existing chronic diseases, as shown in Graph 3, Systemic Arterial Hypertension was present in 53.1% of the sample, followed by Obesity (31.3%), Diabetes Mellitus (15.6%), Pulmonary Emphysema was present in 9.4% of the sample. Chronic diseases less reported by monitored users were: Depression (3.1%), Asthma (3.1%) and Cirrhosis (3.1%).

Figure 3 - Pre-existing chronic diseases. Paraná, 2020.



After starting monitoring, the user informs his initial symptoms, that is, the symptoms that motivated him to seek medical attention. Regarding these symptoms, the most common reported was cough, present in 29.79% of monitored patients, followed by headache (22.55%), sore throat (21.56%), fever (19.43%), shortness of breath (18.87%). Severity symptoms such as cyanosis and dyspnea were reported by 0.43% of users, as shown in Figure 4.

Graph 4 - Initial symptoms presented by monitored patients Municipality of São José dos Pinhais. Paraná, 2020.



Discussion

The results showed that monitoring was essential for the municipality of São José dos Pinhais. During the period of this study, 705 users were monitored, with 29 positive cases and only 4.1% of users. It consists of going to search for individuals in order to identify symptoms and perform notification¹⁰.

RT-PCR tests were performed for users with symptoms for up to 8 days, and rapid test for later ones, there was a preference for performing the rapid test, due to the scarcity of RT-PCR at the collection points. The municipality, as pointed out by the SESA bulletin dated May 11, was the second in the state in the number of positive and recovered cases, only behind the capital, Curitiba¹¹.

Although there is a specific place to care for these cases (Advanced Care Unit), most notifications came from basic health units, demonstrating as Mendes (2011) points out, reaffirming primary care as the main gateway for users to the health care system. health¹²⁻¹³.

In Brazil, in 2007, 72% of deaths were attributed to non-communicable chronic diseases, including cardiovascular diseases, diabetes mellitus and obesity. The main chronic diseases reported by monitored patients (SAH, Obesity and Diabetes) are risk factors for the development of more severe symptoms of the disease, reinforcing the priority of public health control regarding the prevention and control of these diseases. A study carried out in São Paulo showed that 7.2% of users with these diseases developed cardiac lesions, consequently corresponding to most deaths¹⁴⁻¹⁵.

Conclusion

The performance of health surveillance allows users greater security about the evolution of their infection as well as allows the manager to know the cases in their municipality, the monitoring was effective, since most users tested positive recover infection and had their cases followed from the onset of symptoms until their absence. It is noteworthy that so far there is no specific treatment for COVID, and the Ministry of Health's recommendations for distancing and distancing when symptomatic or when coming into contact with confirmed cases should be followed. It is suggested that more studies be carried out on the monitoring of users, in order to prevent the complications of infection.

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Male demands for primary health care

Demandas masculinas para o atendimento na atenção primária à saúde

Demandas masculinas de atención primaria de salud

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RESUMO

Objetivo: caracterizar as demandas de atendimento à saúde de homens na Atenção Primária. **Método:** Trata-se de um estudo epidemiológico, descritivo com base nos dados secundários provenientes do E-SUS SISAB. Analisou-se os atendimentos dos homens na faixa etária entre 20 a 59 anos, residentes em um município do estado da Bahia, Brasil, realizados entre 2015 e 2019. Os dados foram organizados em tabelas utilizando o Stata. **Resultados:** Entre 2015 e 2019, foram realizados 4.630 atendimentos, sendo 79,9% realizados pela equipe mínima. A maior frequência de atendimentos ocorreu na faixa etária entre 50 e 54 anos. Houve maior frequência de atendimentos pela manhã na UBS e em consultas programadas. Estiveram em observação 92,5% e, dos atendimentos realizados pelo NASF, prevaleceu a prescrição terapêutica 45,2%. Dentre os problemas/condições avaliados, foram mais frequentes a hipertensão arterial, reabilitação e saúde mental. Os procedimentos mais realizados foram a aferição de pressão arterial e administração de medicamentos endovenosos. As condutas adotadas foram: o retorno para consulta agendada e retorno para cuidado programado. Realizaram atendimentos odontológicos programados sob o acesso de consultas programadas e com demandas relacionadas procedimentos dentários, dor de dente. Foram assistidos por visitas domiciliares, não sendo compartilhada entre profissionais. **Conclusão:** As demandas por cuidado à saúde apresentadas pelos homens na APS refletem a diversidade e complexidade que provem do cotidiano de trabalho a partir dos territórios e direcionam a reflexão acerca da maneira como os serviços estão orientados, a lógica das práticas de saúde e a própria compreensão dos profissionais e sujeitos no processo de cuidar.

Descritores: Homens; Saúde do Homem; Atenção Primária à Saúde; Estratégia de Saúde da Família.

ABSTRACT

Objective: to characterize the health care demands of men in Primary Care. **Method:** This is an epidemiological, descriptive study based on secondary data from the E-SUS SISAB. The attendance of men aged 20 to 59 years, living in a municipality in the state of Bahia, Brazil, between 2015 and 2019 was analyzed. The data were organized in tables using Stata. **Results:** Between 2015 and 2019, 4,630 calls were made, 79.9% of which were carried out by the minimum team. The highest frequency of visits occurred in the age group between 50 and 54 years. There was a higher frequency of consultations in the morning at the BHU and scheduled appointments. 92.5% were under observation and, of the visits made by the NASF, the therapeutic prescription prevailed 45.2%. Among the problems / conditions evaluated, arterial hypertension, rehabilitation and mental health were more frequent. The most performed procedures were the measurement of blood pressure and administration of intravenous drugs. The conducts adopted were: return for scheduled consultation and return for scheduled care. They performed scheduled dental appointments under the access of scheduled appointments and with demands related to dental procedures, toothache. They were assisted by home visits, not being shared among professionals. **Conclusion:** The demands for health care presented by men in PHC reflect the diversity and complexity that come from the daily work from the territories and direct reflection on the way services are oriented, the logic of health practices and the very understanding of professionals and subjects in the care process. **Descriptors:** Men; Men's Health; Primary Health Care; Family Health Strategy.

RESUMEN

Objetivo: caracterizar las demandas asistenciales de los hombres en Atención Primaria. **Método:** Se trata de un estudio epidemiológico descriptivo basado en datos secundarios del E-SUS SISAB. Se analizó la asistencia de hombres de 20 a 59 años, residentes en un municipio del estado de Bahia, Brasil, entre 2015 y 2019. Los datos se organizaron en tablas utilizando Stata. **Resultados:** Entre 2015 y 2019 se realizaron 4.630 convocatorias, 79,9% de las cuales fueron realizadas por el equipo mínimo. La mayor frecuencia de visitas se produjo en el grupo de edad entre 50 y 54 años. Hubo una mayor frecuencia de consultas por la mañana en la UBS y citas programadas. El 92,5% estaban en observación y, de las visitas realizadas por la NASF, la prescripción terapéutica predominó en el 45,2%. Entre los problemas / condiciones evaluados, fueron más frecuentes la hipertensión arterial, la rehabilitación y la salud mental. Los procedimientos más realizados fueron la medición de la presión arterial y la administración de fármacos intravenosos. Las conductas adoptadas fueron: regreso para consulta programada y regreso para atención programada. Realizan citas dentales programadas bajo el acceso de citas programadas y con demandas relacionadas con procedimientos dentales, dolor de muelas. Fueron asistidos por visitas domiciliarias, no siendo compartidos entre profesionales. **Conclusión:** Las demandas de atención a la salud que presentan los hombres en la APS reflejan la diversidad y complejidad que surgen del trabajo cotidiano desde los territorios y la reflexión directa sobre la orientación de los servicios, la lógica de las prácticas de salud y la propia comprensión de los profesionales y sujetos en el proceso asistencial. **Descritores:** Hombres; Salud de los hombres; Primeros auxilios; Estrategia de salud familiar.

Introduction

The national and international scientific production on men's health care has also privileged aspects of morbidity and mortality, risk factors, and the male distancing from institutional health services.¹ Despite this, the aspects that deal with health behaviors, care practices, and the demands presented in informal health spaces, especially among adult men, still lack more space. In countries such as Brazil, even with the National Policy of Integral Attention to Men's Health instituted, men's search for health care has been permeated by relational gender dimensions, normative standards, stereotypes, and discrimination in health.²

Male access to Primary Health Care (PHC) faces structural challenges in care management, institutional service organization to meet the demands of men and athenalysis manifested by health professionals regarding the reception and production of male health care.³ Producing care capable of looking at the singularities of individuals has been essential to achieve equity and integrality in care. Especially in the context of the production of nursing care directed to the male population, theoretical, conceptual and practical advances have been observed and direct the need for expansion and strengthening of nursing interventions in order to supply existing invisibilities and incipiences with regard to male health care.⁴

Primary Care has the potential to guarantee the resolution of a significant portion of the population's health demands and needs. Nurses and multidisciplinary health teams within the framework of consolidated PHC and with adequate working conditions can contribute significantly to the transformation of the health panorama of men and communities, ensuring health promotion actions, construction of health awareness and autonomy, social participation and control, disease prevention, treatment and rehabilitation.⁴⁻⁵

Despite the search for specific care for diseases, other demands can be presented by men in PHC, such as: environmental, oral, home, spiritual, mental, nutritional, sexual and reproductive health and others.⁵⁻⁶

Given the context presented, this study was guided by the following research question: What are the demands of men's health care in Primary Care in a municipality in the semi-arid state of Bahia? The aim of this article is to characterize the demands of men's health care in Primary Care.

Method

This is an epidemiological, descriptive study based on secondary data from E-SUS SISAB. We analyzed the care of men between 20 and 59 years old, living in a municipality in the state of Bahia, Brazil, conducted between 2015 and 2019.⁷

The municipality investigated has an estimated population of 8,972 inhabitants, with 3,785 households registered, is inserted in the state service agreement network, has coverage of 100% of PHC, and public funding from the federal government for health programs: Health Academy, School Health Program. It is structured by four areas and 22 microareas, with a greater extension of rural area, two Basic Health Units - UBS and two Family Health Units - FHU, with complete minimum teams and five health posts located in the villages and districts.

It has a team of 20 Community Health Agents - CHA and 10 Endemic Control Agents - ACE, a NASF team, a Mobile Dental Unit, health surveillance departments, laboratory collection for laboratory tests, vaccination rooms / cold room, and a pharmacy unit in Bahia, which performs free drug dispensing. Since 2014, the municipality has used the E-SUS system of the Ministry of Health, and has a health unit with an electronic medical record established since 2017. O banco de dados foi solicitado através do Sistema Eletrônico de Serviços de Informação ao Cidadão (e-SIC) e disponibilizado pelo MS em formato de planilha eletrônica através do *Microsoft Excel 2010*. Os dados foram extraídos em maio de 2020.

The variables about the characteristics of the visits were as follows: shifts of care, place of care, type of consultation, was under observation? and care by the Family Health Support Center - NASF. Problems/conditions, procedures and conducts were also evaluated. On the other hand, dental care, care shifts, types of care, type of consultation, procedures and problems/conditions evaluated, conduct and referrals were contemplated. In home and territorial visits, the variables of interest were shifts of care, shared visit, reason for visit and outcome.

Data analysis was performed in the second half of 2020. All variables of the study are categorical, therefore, absolute and relative frequencies were calculated. In the analysis, the period from 2015 to 2019 was considered due to the availability and completeness of the data due to the establishment of the E-SUS system in the municipality investigated. The data were organized in tables using Stata (version 13).

The project was approved by the Ethics and Research Committee under the protocol number: CAAE: 47814815.4.0000.5654 and n.1.208.304.

Results

Between 2015 and 2019, 4,630 visits were performed by men in basic health units in the city of Quixabeira (BA) and 79.9% (3700) performed by the minimum team (physician, nurse, nursing technician, dentist, oral health assistant and Community Health Agents and Endemic Control) and 20.1% (930) by the family health support center team - NASF. The highest frequency of visits occurred in the age group between 50 and 54 years (777/16.8%).

Regarding individualized care, there was a higher frequency of morning visits (2,466/53.3%), in the UBS (4,531/97.9%), scheduled consultations (3,133/67.7%), were under observation (4,281/92.5%) and, of the visits performed by the NASF, the therapeutic prescription prevailed (420/45.2%) (Table 1).

Table 1 - Characteristics of individualized care of men in primary care. 2015 to 2019. Bahia, Brazil.

Variables	n	%
Service shifts		
Morning	2.466	53,3
Afternoon	2.164	46,7
Place of service*		
UBS	4.531	97,9
Domicile	66	1,4

Mobile unit	7	0,1
Ignored	26	0,6
Type of query		
Scheduled	3.133	67,7
Spontaneous demand	1.453	31,4
Ignored	44	0,9
You've been under observation		
Yes	4.281	92,5
No	349	7,5
NASF Calls*		
Evaluation/diagnosis	190	20,4
Clinical/therapeutic procedures	320	34,4
Therapeutic prescription	420	45,2
Total	4.630	100

* Percentage calculated considering only the individuals who performed care with the NASF.
Source: E-SUS.

Among the problems/conditions evaluated, arterial hypertension (843/18.3%), rehabilitation (512/11.0%) and mental health (495/10.7%) were more frequent. On the procedures, blood pressure measurement (1,594 / 34.4%) and intravenous medication administration (01,704/36.8%) were the most performed. Regarding the conducts adopted, the return to scheduled consultation (2,633/56.9%) and return to scheduled care (1,547/33.6%) were the most prevalent (Table 2).

Table 2 - Problems/conditions evaluated, procedures and conducts performed in men in primary care. 2015 to 2019. Bahia, Brazil.

Variables	n	%
Assessed problems/conditions		
Hypertension	843	18,3
Rehabilitation	512	11,0
Mental health	495	10,7
Diabetes Mellitus	232	5,0
Sexual and reproductive health	122	2,6
Obesity	55	1,2
Asthma	41	0,9
Cardiovascular risk (screening)	13	0,3
Signs and symptoms of the lumbar region (CIAP 2)	92	2,0
Flu (CIAP 2)	51	1,1
Abdominal and epigastric pain (CIAP 2)	39	0,8
Other	2.135	46,1
Procedures		
Blood pressure measurement	1.594	34,4
Special dressing	122	2,6
Withdrawal of points	102	2,2
Quick Syphilis Test	190	4,1
Rapid HIV test	165	3,6
Hepatitis C Rapid Test	180	3,9
Administration of intravenous drugs	272	5,9

Intramuscular drug administration	1.704	36,8
Inhalation/nebulization	111	2,4
Other	190	4,1
Conducts		
Return to scheduled query	2.633	56,9
Return for scheduled care	1.547	33,6
Scheduling for NASF	42	1,0
Scheduling for group	5	0,2
Internal routing	13	0,3
Referral to specialized service	90	2,0
Referral to home care	15	0,4
Referral to urgency	9	0,2
Ignored	246	5,4
Total	4.630	100

Fonte: E-SUS.

Dental visits were more frequent in the morning (2,431/55.8%), scheduled (3,847/86.68%), return visits (58.9%), guidance as a procedure (1,435/1,435/86.68). 32.9%), toothache as the most evaluated condition (703/16.2%), return as conduct (3,670/84.3%) and only 2.7% (118) were referred to some complementary service (Table 3).

Table 3 - Dental care performed in men in primary care. 2015 to 2019. Bahia, Brazil.

Variables	n	%
Service shifts		
Morning	2.431	55,8
Afternoon	1.923	44,2
Types of service *		
Scheduled	3.847	86,8
Spontaneous demand	399	9,0
Urgency	184	4,2
Type of Consultation		
First	1.154	26,1
Return	2.566	58,9
Maintenance	285	6,5
Ignored	349	8,0
Procedures		
Orientation	1.435	32,9
Permanent tooth restoration	1.075	24,7
Scraping and polishing	1.065	24,5
supragingivals	779	17,9
Other		
Assessed problems/conditions		
Toothache	703	16,2
Soft tissue change	67	1,5
Dentoalveolar abscess	52	1,2
Unspecified/No problems or conditions	3.532	81,1

Conduct		
Return	3.670	84,3
Treatment completed	354	8,1
High after episode	217	5,0
Ignored	113	2,6
Referrals		
Radiology	101	2,3
Dental	17	0,4
No routing	4.236	97,3
Total	4.354	100

* Total frequency 4430.

Source: E-SUS.

Regarding home and territorial visits, 22,780 activities were carried out, concentrated in the morning (14,020/61.5%), not being shared among professionals (22,356/98.1%), the reason for periodic visits (14,032/40.5%) and were performed (21,982/96.5%) (Table 4).

Table 4 - Characteristics of home and territorial visits performed with men in primary care. 2015 to 2019. Bahia, Brazil.

Variables	n	%
Service shifts		
Morning	14.020	61,5
Afternoon	8.716	38,3
Ignored	44	0,2
Shared visit		
Yes	424	1,9
No	22.356	98,1
Reason for the visit*		
Periodic visit	14.032	40,5
Guidance/Prevention	8.773	25,3
Invitation to collective activity/campaign	1.167	3,4
Active search	4.411	12,7
Accompaniment	6.182	17,9
Environmental control	43	0,2
Outcome		
Held	21.982	96,5
Refused	17	0,0
User absence	781	3,5
Total	22.780	100

* Total frequency 34,608.

Discussion

The data presented in this study indicate the male demand that arrives at primary care services, with a higher demand for men aged 50 years or older and more markedly in the morning shift. The role of the different technologies

available for care in PHC is emphasized, such as the NASF, which was responsible for promoting the reception of different male demands.

The recognition of barriers to men's access to health services permeates the assimilation of transversality from the gender perspective in the organization of care practices⁶, so that obstacles are evidenced and potentialities capable of modifying the reality of distancing, sense of non-belonging and low male engagement in actions and services of health promotion and care, overcome the common place of the difficulties already already pointed out. Above all, it implies the possibility of identifying from the PHC itself, the male demands and needs of the territory that may or may not be presented in these services.⁸⁻⁹

The results indicate a male insertion mostly for therapeutic follow-up, having remained more than 90% of them under observation by the teams, without much feedback to the information system of what this observation refers to, that is, it is not possible to verify an intervention to improve the organizational logic of the services to identify the needs in the territory, reproducing the query-complaint logic. This is tied to this, the low percentage of health education actions, which makes it difficult to overcome distancing, the weaknesses in access, the qualification of health information and ratifies the idea of non-correspondence between man and care, devaluing these subjects and their practices and consequently, sustaining weaknesses in the reception of the male public and their demands.^{9,10}

Regarding chronic illness, the results corroborate the morbidity distribution profile in Brazil, which shows that approximately 70% of its population between 18 and 59 years old with at least one Chronic Non-Communicable Disease (NCD), reaching 80% after 60 years. Nursing teams have a great impact on the care of people with chronic conditions, since they are responsible for self-care guidance, care; by the management of demand within the unit and by the teaching process, both in popular education and in continuing education.¹⁰⁻¹¹

Studies report that the care of nurses based on the nursing process, especially in the stages of detection of health situation diagnoses in validated taxonomy, planning and evaluation of actions with the patient has the potential to improve health behavior and give them a better quality of life. This evaluation should maintain a periodicity for the improvement of knowledge in patient health, improvement of the perspective of self-care and recognition of potentialities.¹²

However, nursing consultations are mostly directed to female reproductive planning, prenatal care and childcare, not encompassing, to a large part, men. Another viable strategy to improve the reception of these men in the health unit are the focus groups carried out only with them, with themes that associate the personal interest of service users and the need to build a knowledge in community health and accessible.¹³⁻¹⁴

Looking at the scenario of access to PHC unseen by the results also generates triggers in the field of sexuality, observing communicable diseases Looking at the scenario of access to PHC unseen by the results also generates triggers in the field of sexuality, observing diseases transmissible by sexual means. The screening of possible sexually transmitted infections, the availability of contraception and the direction of other methods for planning paternity and the strengthening on the importance of maintaining the updated immunization

card, with a special look at hepatitis, is important and challenging. The literature points out strategies based on the initial application of light relational technologies, aiming to know the principles of the man being cared for and the strengthening of treatment equity. In addition, improvements in the flow of the unit, from the disposition in the environment to interferences in the organizational culture, stimulating the participation of men parents of the community in the consultations of the children and co-responsibility of care are seen as favorable for the strengthening of primary care.¹⁵

This study presents as a limitation the fact that the sample is composed of primary data being taken from the electronic system of the SUS, which historically presents underreporting. Added to this is the fact that the city considered to be located in the interior of Bahia, and be small, with less than 60,000 inhabitants, currently.

Nursing practice in Primary Care is essential to reverse the situation of precarious health of men, as observed in the article with men and women with obesity in the USA, in which it would be necessary to understand the experiences of health care among populations at risk in order to obtain results that guarantee equity in health,¹² or in the article on the performance of community nurses by complementing the work of multidisciplinary rehabilitation teams, providing men with continuous evaluation, management and information on possible interventions and, when necessary, referrals to other health demands.¹⁶

As contributions to nursing, analyzed data are presented that support the construction of a possible diagnosis of the performance of primary care in the knowledge and meeting the demands of the male population. In addition, the gap in studies that measure the resolution of interventions to meet male demands in PHC is highlighted, so it is recommended that new searches be recommended to contribute to advances in this scenario.

Conclusion

The demands for health care presented by men in PHC reflect the diversity and complexity that come from daily work from the territories and direct reflection on the way services are oriented, the logic of health practices and the very understanding of professionals and subjects in the care process.

Moreover, the male demands go beyond what repeated studies have proposed as a production of men's health, broaden the look beyond the aspects of morbidity, sexuality and shed light on other issues that mobilize the time, attention and care of men with them and in this sense, these apprehensions become expensive to the reorganization of the care model.

It is essential to point out for the role and potential of PHC in the Brazilian context, with its singularities and penetration in the territories, in causing ruptures in the understanding and action of subjects and professionals and, consequently, contributing to the transformation of practices and beliefs about health, disease and care among men.

Therefore, the evidence of this study points to possibilities that allow us to look beyond the obstacles in male involvement in the health care arena and provide resources to capture paths for the construction of bonds, promotion of welcoming and thus guarantee the right to health for men.

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“Heart beating strong” project: educational clinic to prevent cardiopulmonary arrest

Projeto “Coração batendo forte”: estratégias educativas de prevenção da parada cardiorrespiratória

Proyecto “Corazón late fuerte”: clínica educativa para prevenir la parada cardiopulmonar

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RESUMO

Objetivo: Descrever a criação do projeto de extensão coração batendo forte dedicado ao ensino de pessoas a lidarem em uma parada cardiorrespiratória. **Método:** Trata-se de um estudo descritivo, exploratório, qualitativo, que envolveu estudantes do curso de graduação de Enfermagem, docentes e a comunidade acadêmica e civil. Foram envolvidas atividades de extensão e pesquisa a partir da aplicação de pré-teste e um pós-testes para avaliar o nível de conhecimento da população sobre como agir frente à uma parada cardiorrespiratória. **Resultados:** a criação do projeto contribuiu para a ampliação da formação acadêmica na área de urgência e emergência, no potencial gerador de conhecimento sobre a parada cardiorrespiratória e o Suporte Básico de Vida por pessoas leigas em locais de grande circulação, professores, funcionários e estudantes de escolas públicas. Fortalecer a educação para a saúde face a produção técnica de materiais educativos e da pesquisa a partir da realização de estudos científicos sobre a área. **Conclusão:** o projeto coração batendo forte mostrou-se eficaz para a promoção do conhecimento e educação para a saúde com o enfoque na prevenção e manejo da parada cardiorrespiratória.

Descritores: Enfermagem; Educação em Saúde; Emergências; Reanimação Cardiopulmonar.

ABSTRACT

Objective: Describe the creation of the heart beating extension project dedicated to teaching people how to deal with cardiac arrest. **Method:** This is a descriptive, exploratory, qualitative study, involving undergraduate nursing students, teachers and the academic and civil community. Extension and research activities were carried out through the application of a pre-test and a post-test to assess the level of knowledge of the population on how to act in the face of cardiopulmonary arrest. **Results:** the creation of the project contributed to the expansion of academic training in the area of urgency and emergency, in the potential generator of knowledge about cardiopulmonary arrest and Basic Life Support by lay people in places of great circulation, teachers, employees and students of public schools. Strengthen health education in the face of technical production of educational materials and research based on scientific studies on the area. **Conclusion:** the heart beating project proved to be effective in promoting knowledge and health education with a focus on prevention and management of cardiorespiratory arrest.

Descriptors: Nursing; Health education; Emergencies; Cardiopulmonary Resuscitation.

RESUMEN

Objetivo: Describe la creación del proyecto de extensión de latidos del corazón dedicado a enseñar a las personas cómo lidiar con un paro cardíaco. **Método:** Se trata de un estudio descriptivo, exploratorio, cualitativo, que involucró a estudiantes de pregrado de enfermería, docentes y la comunidad académica y civil. Se realizaron actividades de extensión e investigación mediante la aplicación de un pre-test y un post-test para evaluar el nivel de conocimiento de la población sobre cómo actuar ante la parada cardiorrespiratoria. **Resultados:** la creación del proyecto contribuyó a la expansión de la formación académica en el área de urgencia y emergencia, en el potencial generador de conocimiento sobre parada cardiopulmonar y Soporte Vital Básico por laicos en lugares de gran circulación, docentes, empleados y estudiantes de escuelas públicas. Fortalecer la educación para la salud frente a la producción técnica de materiales educativos e investigaciones basadas en estudios científicos en el área. **Conclusión:** el proyecto de latidos del corazón demostró ser efectivo en la promoción del conocimiento y la educación en salud con un enfoque en la prevención y manejo de la parada cardiorrespiratoria.

Descritores: Enfermería; Educación en salud; Emergencias; Reanimación cardiopulmonar

Introduction

In emergency situations, the evaluation of the victim and his/her care should be decided, allowing the reduction of sequelae and increased survival. Thus, when there is a sudden loss of consciousness of an adult individual, the first attitude of the first responder should be to identify cardiorespiratory arrest (CRP), initiate chest compressions as soon as possible and direct someone to activate the Emergency Service that is characterized by the SAMU (Mobile Emergency Care Service) by connecting to number 192.¹

Thus, the initial care of a patient in emergency situations requires a systematic and objective evaluation and the quality of care is an extremely important factor for emergencies offered by both professionals and the population.

Considering the estimate that more than half of CRP occur outside the hospital environment, it can be concluded that most of them are witnessed by the lay population, however some factors such as emotional imbalance, lack of ability to perform cardiopulmonary resuscitation (CPR), the possibility of being a close relative may hinder the lay man's performance.²

The difficulties of starting the basic maneuvers due to lack of sensitization and fear of social disapproval due to possible failure can lead to paralysis of the rescuer at the time of the decision to provide first aid, being therefore essential the clarification and training of the population so that it is prepared to act in any emergency situation.³

According to the American Heart Association Guidelines (2020)⁴ most victims of sudden extra-hospital CRP do not receive any Cardiopulmonary Resuscitation (CPR) maneuvers from people present at the site. Through this scenario, it is also considered the importance of the insertion of knowledge to provide relief in emergency situations among children. Thus, education being a construction process, it is necessary to start early, and should be inserted even in childhood, the first indications of accident prevention and first aid victims in eergencia.⁵ For these reasons, it is considered extremenecessit and relevance the training of people in school spaces, propagation of this knowledge in school activities.⁶⁻⁷

In Article 3 of Ordinance No. 1,863 of September 29, 2003⁸ establishing the Policy of National Emergency Care define from one of the following fundamental components the adoption of promotional strategies of quality of life, seeking to identify the determinants and conditioning factors of emergencies and through transitory actions of public responsibility, without excluding the responsibilities of society as a whole.

As a way to overcome this problem, and considering the Brazilian situation of morbidity and mortality associated with emergency conditions, such as those related to trauma and violence, the National Policy for Reducing Morbidity and Mortality from Accidents and Violence was created in 2001, which should act in a manner articulated with the National Emergency Care Policy,⁸ through work in networks and indispensable components such as the Mobile Emergency Care Service, SAMU 192, effected by the ordinance in 2003.

The GM Ordinance No. 2,420 of November 9, 2004⁹ aims to evaluate and recommend intervention strategies of the Unified Health System -SUS, to address sudden death episodes. The Ministry of State for Health considers that diseases of the circulatory system represent the main cause of death in the country (32%), where ischemic heart diseases are responsible for up to 80% of sudden death episodes. Within this context, it is noteworthy that most episodes in non-hospital environments, requiring adequate intervention strategies in a timely manner.⁹

With the occurrence of CRP, the risk of brain injury becomes increased, or even irreversible, putting the survival of the victim at risk. Thus, the risk of life increases every minute as circulation becomes non-existent for vital organs and the brain. The simple action of a layman who recognizes the signs of a PCR and calls the aid prevents myocardial and cerebral deterioration.³

When CPR is performed effectively, survival rates reach 50%. Unfortunately, this is not the reality of most CPR performed both inside and outside hospitals. To this detriment, we consider the importance of health education of the lay community in the early detection of emergencies, as an effective way for post-stop survival in a systematic way, with interventions such as identification of the stop and the beginning of immediate resuscitation.

In this context, for extension activities are justifiable when they are part of the process of academic training articulating with society, effectively contributing to the improvement of the quality of life and health of the population and the Academic Leagues thus compose important roles for the recognition of health needs and demands, and in coping with existing problems.¹⁰⁻¹¹

The training of the lay population to perform first aid and fundamental maneuvers for life maintenance and harm reduction is added to the possibility of greater chances for victims and improvement in their prognoses, still adding to the fact that trained individuals are multipliers of knowledge, thus increasing the number of people indirectly reached by this proposal.¹⁰

Anchored in the arguments presented and on the relevance of the scenario exposed, this study was guided by research research: How to expand the knowledge and action of the population in the face of a cardiorespiratory arrest from health education? This article aims to describe the creation of the strong beating heart extension project dedicated to teaching people to cope in a cardiorespiratory arrest.

Method

A study described, exploratory, qualitative. It is specifically the creation of an extension project entitled: "Heart pounding strong". It was linked to the academic extension program of the undergraduate nursing course through the creation of the Strong Beating Heart Program of Cardiorespiratory Resuscitation Education (PCBERC) conducted with students from a private Higher Education Institution in a municipality in the state of Bahia, Brazil.

The field of realization of the activities of the project had as scenario units /institution of great circulation of people, such as public schools, health units, public courtyard of the university, sports activities and public squares. This

municipality is the second largest in the state of Bahia, with an estimated population of 556. 642 inhabitants, with an area of 1,337.9 km², standing out in the organization of health care networks, considered a reference for medium and high complexity services in the various lines of care.¹²

The project was implemented in 2016 and is in force until the current context (2020). All ethical aspects were respected. The project was approved by the Research Ethics Committee under the opinion number: CAAE: 58136016.4.0000.5654 and n. 1,673,866.

Results

The results of the creation of the extension project "heart beating strong" are composed by the description of the project in the face of its regulation, creation, structuring, execution and evaluation. Moreover, the production of educational material of use with the community that emphasized contents such as: 01 - knowing health services; 02 - mobile emergency care service; 03 - emergency care units (up a 24 hours); 04 - fixed pre-hospital units (polyclinics); 05 - hospitals; 06 - cardiorespiratory arrest; 07 - What should I do in the face of a cardiorespiratory arrest?; 08 - cardiopulmonary resuscitation; 09 - choking; 10 - asphyxiation and references. Imagery resources were used and were elaborated based on student involvement with the actions developed by the academic league.

Chart 1 - Description of the heart beating strong design. Bahia, Brazil. 2020.

Regulation:
<i>The project was a product developed in the Academic League of Trauma and Emergency (LIATE) of the Undergraduate Nursing Course of the said institution. The creation of the project occurred through the restlessness and initiative of the students participating in liate, who understood the importance of dissecting knowledge about cardiorespiratory resuscitation as a strategy to save lives in their various places and public, and by the emergency need to overcome the deficiencies of action on this theme.</i>
Creation:
<i>This project was developed by undergraduate nursing students, who already worked in the League and have already attended the basic disciplines for acting in an emergency situation. It also counted as the support of the Pro-Rector of Research and Extension of the institution, and the partnership of nurses and nurses trained in the care of emergencies and emergencies.</i>
Structuration:
<i>The methodology developed to carry out the project was based on the determinations of the Guidelines of the American Heart Association, European Resuscitation Council, Brazilian Society of Cardiology and the National Urgency and Emergency of the Ministry of Health. The structuring of a one-hour theoretical class program for Group 01 was organized: (teachers, employees, fathers and mothers of students from public schools in the municipality), and 30 minutes for Group II: (lay people on the theme who move through places of great circulation, defined by the project).</i>
Execution:
<i>For the execution of the objectives of this project, the PCBERC provided the provision of audiovisual resources, theoretical classes, practical simulations, which included the</i>

use of mannequins for training in adult resuscitation, DEA simulator (Automatic External Defibrillator). The practices were developed in small groups, by stations, where elementary themes will be presented, such as the epidemiology of cardiorespiratory arrest, contributions of cardiorespiratory resuscitation, chest compression techniques, airway opening and ventilation and use of automatic external defibrillator (DEA). To this do, practical simulation stations were created. In these actions, participants had the opportunity to train in the inflatable mannequins the appropriate technique for performing chest compressions, ventilations, use of the automatic external defibrillator (DEA) and the airway clearance maneuver (Heimlich maneuver) used to prevent choking and asphyxia.

Evaluation:

In order to evaluate the knowledge of the participants, and permanently improve the quality of teaching, as well as the dissemination of knowledge, pre-tests and post-tests standardized and already validated in other Brazilian studies on the theme addressed in each training – a season of practical simulations were applied. In the context of the research, semi-structured questionnaires were applied to assess the knowledge and efficacy of health education activities performed. Therefore, the pre-test and post-test was elaborated by reading and prior analysis of the revised bibliography, which basically addresses the survival chain and the sequence of Basic Life Support and was divided into identification and approach of the victim, being composed of closed questions (multiple choice) and open following a published study.³⁻⁴

Figure 1 – Educational primer of the heart beating strong project. Bahia, Brazil. 2020.



Source: LIATE, 2016.

Figure 2 - Educational primer of the heart beating strong project. Bahia, Brazil. 2020.




Source: LIATE, 2016.

Figure 3 - Educational primer of the heart beating strong project. Bahia, Brazil. 2020.




Source: LIATE, 2016.


Figure 4 - Educational primer of the heart beating strong project. Bahia, Brazil. 2020.




1. Envolve os braços em torno da cintura da pessoa.



❖ Veja a posição lateralmente:



Após ter se posicionado, você deverá realizar uma manobra, e aplicar pequenos golpes na região do abdômem. Siga os passos descritos:



Source: LIATE, 2016.

Figure 5 - Educational primer of the heart beating strong project. Bahia, Brazil. 2020.

2. Se você estiver realizando as compressões no centro do tórax da vítima, peça para alguém abrir a caixa ou bolsa onde está o desfibrilador;



3. Em seguida leia rapidamente as instruções. Você deve apertar o botão como o nome: LIGAR;



Veja a posição correta das pás:



Não tenha medo de utilizar o aparelho. Basta seguir todas as orientações e comandos. Se você utilizar o desfibrilador, estará ajudando a vítima a sobreviver. E não esqueça, repasse essas informações para outras pessoas. Fale sobre isso com os amigos, no trabalho e em casa.

Fonte: AHA, 2015.



Source: LIATE, 2016.

Figure 6 - Educational activities of the heart beating strong project. Bahia, Brazil. 2020.



Source: LIATE, 2020.

Figure 7 - Logo of strong beating heart design. Bahia, Brazil. 2020.



Source: LIATE, 2016.

Figure 8 - LIATE Instagram page. Bahia, Brazil. 2020.



Source: LIATE, 2020.

Discussion

This study was able to describe the creation of the strong beating heart extension project dedicated to the promotion of educational strategies for the prevention of cardiorespiratory arrest in a metropolis in northeastern Brazil.

Sudden death such as unexpected death of cardiac etiology that occurs immediately or within one hour after the onset of symptoms of ischemic heart disease.¹³ The clinical condition that characterizes sudden death is cardiac arrest (CP) characterized as cessation of cardiac mechanical activity confirmed by the absence of signs of circulation (absence of pulse, apnea or agonic respiration).¹⁴

Despite all developments in recent years related to treatment and prevention, Cardiorespiratory Arrest (CRP) remains a worldwide public health problem. There are many lives lost annually in Brazil related to PCR. Advances such as cardiopulmonary resuscitation (CPR) training also extend to legislation on public access to defibrillation and mandatory availability of DEA (automatic external defibrillator). Approximately 200,000 PCR per year are estimated in Brazil, half of which occur in a hospital environment, and the other half in environments such as residences, shopping malls, airports, stadiums.¹⁵

Regarding the ASD, ventricular fibrillation is the rhythm of stop most found in the extra-hospital environment, and this rhythm and ventricular tachycardia are resolved with defibrillation, which consists of the application of electrical impulse in the chest, leading myocardial fibers to function in the same phase of the action potential with the resumption of normal rhythm by the sinus node.¹⁶⁻¹⁷

After a defibrillation, cardiac massage should be initiated, since the heart does not return to normal circulation immediately after shock, even if the defibrillation has been successful. The current sequence is shock, CPR, rhythm and pulse checks. Rhythm check should be performed two minutes after each defibrillation.¹⁸

PCR care is necessarily necessary and priority of all health professionals, regardless of their specialty. Early and correct diagnosis is the key to the success of cardiopulmonary resuscitation (CPR). The signs used for detection are: absence of pulse vessels of large caliber, unconsciousness, cyanosis and absence of respiratory movements.¹⁸

The modern 'birth' of CPR took place from 1960, however it was considered a medical practice where even nurses and dentists were prevented from performing it. Over time, the views gradually changed and, in mid-1974, the American Heart Association published its first guidelines for both health professionals and lay people, in view of the great advantages evidenced by the involvement of the general public.¹⁵

The immediate performance of CPR in a CRP victim, even if only with chest compressions in the pre-hospital, contributes significantly to the increase in survival rates of cardiac arrest victims.¹⁹ In Brazil, the greatest challenge is to expand access to CPR education, establish processes for the continuous improvement of its quality, in addition to reducing the time between CPR and the application of the first shock by the defibrillator.²⁰

Among the most relevant aspects of the American Heart Association guidelines on cardiopulmonary resuscitation and emergency cardiovascular care, evidence showed that when the aid is performed in the initial 5 minutes of CRP there is no difference in survival if the maneuvers start first or if help is requested before the maneuvers are realized. When late after this period, help should be requested and then cpr should start, except when the patient is a child, because the main cause of CRP in this age group is hypoxia that requires immediate help.⁴

Therefore, the actions performed during the initial minutes of emergency care are critical regarding the survival of the victim. Basic Life Support (BVS) defines the primary sequence of actions to save lives. Even if adequate and efficient is an advanced support, it is the basic support actions that will define the survival of the victim in PCR. Thus, most PCRs occur in adults, but children are also affected. The etiological/epidemiological profile of the child is totally different from the adult, which is reflected in important differences in the treatment.¹⁵

The survival rate of children with sudden CRP and witnessed in the external environment, by ventricular fibrillation, is 20% to 30%. These data address and emphasize the importance of teaching CPR maneuvers to the lay public, as well as the creation of strategies for emergency care training in schools and day care centers.¹⁵

They are conducts for PCR in general except for specific cases such as infants (less than 1 year) that the rescuer should evaluate responsiveness and breathing in less than 10 seconds, trigger the emergency service, when reaching the brachial pulse identify the PCR trace an imaginary line in the nipples, place 2 fingers just below the intermamilar line and compress the thorax in the sternum, straight, at a depth of 1/3 of the anteroposterior height of the thorax, about 4cm, at a speed of at least 100 compressions per minute. The thorax should return to its normal position after each compression. Perform 30 compressions for 2 vents.¹⁵

The success of the recovery of the CRP victim is the presence of someone with training to initiate CPR maneuvers, so its occurrence is identified. Therefore, it is fundamental to participate in the lay population in the care of CRP, providing the minimization of the time between the occurrence and the beginning of interventions. Thus, the importance of the education of the lay population in the early detection of PCRs is highlighted.

This study presented as contributions the strengthening of public policies aimed at health education, emergency and emergency care, with a potential aggregator for the improvement of health care employed by academics in future professional experience, as well as to the reduction of damage and mortality caused by diseases that trigger cardiorespiratory arrest.

The creation of the strong beating heart project contributed significantly to the population's preparation for social engagement aimed at reducing the mobimortality of the population inserted in the locus of action and other surrounding cities, through the strengthening of health education actions and the dissemination of knowledge. Satisfactory aspects were evidenced regarding the coping with the problem in question by health professionals, education and

related areas and by students affected by extension activities, so that they are able to perform a successful function in the face of a cardiorespiratory arrest.

The qualification of nursing education can also be observed through the use of active methodologies and the use of light/relational technology used in health education actions.²¹ And with the community having promoted exchanges of knowledge, which constitutes a social commitment. In addition, this project aimed to promote studies and research on the area in order to bring greater expansion to face the problem in question.

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Evidence of Nursing Care During Prenatal Care

Evidências da Assistência de Enfermagem Durante o Pré-Natal

Evidencia de la atención de enfermería durante la atención prenatal

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REVISA

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RESUMO

Objetivo: Descrever, dentro do contexto social, evidências para consulta de enfermagem no pré-natal. **Método:** Trata-se de estudo descritivo, com pesquisa documental e análise de dados secundários a partir da variáveis encontradas no Sistema de Informações sobre Nascidos Vivos - SINASC/MS. Para discussão dos resultados foram selecionados artigos publicados entre 2010 a 2020, em língua portuguesa, espanhola e inglesa, totalizando 25 artigos. **Resultados:** O pré-natal revela-se como um momento adequado para desenvolver ações educativas utilizando, como ferramentas, o diálogo, o vínculo e a escuta das gestantes e de seus acompanhantes, objetivando aproximação entre profissionais e pacientes. **Conclusão:** O enfermeiro é o profissional capacitado para conduzir o pré-natal de forma a favorecer a promoção e prevenção da saúde do binômio mãe-filho. Orientações quanto ao processo gravídico-puerperal são ações desenvolvidas para preparar a gestante e os familiares para cada etapa da gestação e as modificações que essa condição provoca, sejam elas fisiológicas ou emocionais. Essas ações desenvolvidas pelo enfermeiro resultarão em uma gestação mais saudável preparando a gestante para o momento do parto e assim direcionar para que nesse momento ela seja protagonista, uma vez que se trata de um momento tão especial. **Descritores:** Pré-Natal; Saúde da Mulher; Gestante; Enfermeiro.

ABSTRACT

Objective: To describe, within the social context, evidence for nursing consultation in prenatal care. **Method:** The work carried out is an exploratory literature review of a quantitative nature. The data used were from online platforms such as BIREME, SCIELO and Information System on Live Births - SINASC/MS. Articles published between 2010 and 2020, in Portuguese, Spanish and English were selected, totaling 25 articles after critical analysis of all pre-selected in search of data that contemplated the objectives of the study. **Results:** Prenatal care reveals itself as an appropriate time to develop educational activities using, as tools, dialogue, bonding and listening to pregnant women and their companions, aiming to bring professionals and patients closer together. **Conclusion:** The nurse is the best professional to conduct prenatal care. The nurse is the professional trained to conduct prenatal care in order to favor the promotion and prevention of the health of the mother-child binomial. Guidance on the pregnancy-puerperal process are actions developed to prepare pregnant women and family members for each stage of pregnancy and the changes that this condition causes, whether physiological or emotional. These actions developed by the nurse will result in a healthier pregnancy preparing the pregnant woman for the moment of delivery and thus directing her to be the protagonist at this moment, since it is such a special moment. **Descriptors:** Prenatal care; Women's health; Pregnant Woman; Nurse.

RESUMEN

Objetivo: Describir, dentro del contexto social, evidencias para la consulta prenatal de enfermería. **Método:** Se trata de un estudio descriptivo, con investigación documental y análisis de datos secundarios con base en las variables encontradas en el Sistema de Información sobre Nacidos Vivos - SINASC/MS. Para la discusión de los resultados, se seleccionaron artículos publicados entre 2010 y 2020, en portugués, español e inglés, totalizaron 25 artículos. **Resultados:** La atención prenatal es un momento adecuado para desarrollar acciones educativas utilizando, como herramientas, el diálogo, la vinculación y la escucha a las gestantes y sus acompañantes, con el objetivo de acercar a profesionales y pacientes. **Conclusión:** Las enfermeras son los profesionales calificados para realizar la atención prenatal con el fin de promover y prevenir la salud del binomio madre-hijo. La orientación sobre el proceso embarazo-puerperal son acciones desarrolladas para preparar a las mujeres embarazadas y familiares para cada etapa del embarazo y los cambios que esta condición causa, ya sean fisiológicos o emocionales. Estas acciones desarrolladas por la enfermera se traducirán en un embarazo más saludable preparando a la gestante para el momento del parto y dirigiéndola así a ser la protagonista en este momento, ya que se trata de un momento tan especial. **Descritores:** Prenatal; Salud de la Mujer; Mujer embarazada; enfermera.

ORIGINAL

Introduction

Pregnancy marks a phase of changes in a woman's life and body. These changes, in addition to physical and emotional, are also social, sexual and affective, generating mixed feelings of pleasure, joy, fear and anxiety. Thus, prenatal care can be considered a biological and psychological preparation phase for childbirth and, later, for motherhood. "Being this moment of vast learning, in which the woman can resolve doubts, it is of fundamental importance for the development of the mother-child binomial."¹

During pregnancy, the body goes through several changes. Thus, prenatal care, in addition to serving as evidence-based care and to assess the vitality of the mother and baby, also helps the pregnant woman better understand the changes her body and her psychological state are going through.²

Thus, the need for prenatal care should involve medical professionals and nurses. The nurse, with a focus on promotion and prevention during pregnancy and puerperal period, induces a greater bond with the pregnant woman, enabling clarification at the time of consultation.

For Dias, one of the goals of prenatal care is to welcome the woman from the moment of pregnancy, as the early start and active participation in prenatal care result in more chances for women to have a smooth pregnancy.³

The Ministry of Health published Ordinance No. 570, of July 1, 2000, which regulates prenatal care and institutes the Prenatal and Birth Humanization Program.

This ordinance provides for prenatal care to be seen with more empathy and respect, establishing mechanisms that enable improved access, expanded coverage, quality of prenatal care and registration of pregnant women.⁴

The quality of prenatal care lies in carrying out consultations in scheduled periods with qualified listening, use of vitamin supplements, vaccine updates, monitoring of the development of the fetus, detection of possible pathologies in progress or that may arise, as well as preparation for the childbirth and breastfeeding.²

The Low-Risk Prenatal Care Handbook 32 suggests that prenatal consultations should be carried out monthly for pregnant women up to 28 weeks of GA, fortnightly from the 28th to the 36th week and weekly from the 36th until delivery, interspersed between the nurse and the doctor, with no discharge from prenatal to postpartum.⁵

It is during prenatal care that nurses promote actions so that pregnant women become increasingly aware of their rights, of all physiological processes that will occur in their body, especially those characteristic of each trimester of pregnancy, such as nausea, leg pain, tiredness, fluid retention and even mood swings.²

In the Family Health strategy, the team is mostly composed of nurses rather than physicians, which requires from this professional the ability to attend low-risk prenatal consultations.

Only knowledge and skill will give nurses more autonomy to care for these pregnant women, as they have a more humanized look and are always concerned with offering educational activities, ensuring a holistic look:

In prenatal consultations, especially in the ESF program, the nurse is an essential part in the care and assistance of pre-partum, delivery and post-partum because it is a professional trained to meet the expectations and needs of pregnant women during this period. of so many transformations.⁶

As for the role of the nurse, the following question was raised: what evidence points to the fact that the nursing consultation during prenatal care prepares the pregnant woman to be the protagonist of her birth?

Thus, the study seeks to describe evidence for nursing consultation during prenatal care and the preparation of pregnant women for childbirth.

Method

This is a descriptive study, with documentary research and analysis of secondary data from the variables found in the Health Information System for Primary Care - SISAB and the Information System on Live Births - SINASC/MS.

The variables analyzed included: prenatal consultations, race/color, marital status, age, mode of delivery available at SISAB in the years 2010 to 2020. The study was then divided into five steps described below:

First step: After surveying the variables, the selection and review of articles found in databases such as the Virtual Health Library (VHL), Latin American Literature in Health Sciences (LILACS), Specialized Bibliographic in the Area of Nursing in Brazil (BDENF), Bireme, and in SciELO- Scientific Electronic Library Online, books related to the theme from 2010 to 2020. The search for articles was carried out in order to elaborate the discussion based on the available literature.

Second step: The inclusion and exclusion criteria of articles were used, which used publications that portrayed the theme: Nursing Care During Prenatal-Natal. The following descriptors were used: Nurse; prenatal; nursing consultation; and the pre-selection of articles with full text in Portuguese was carried out. After the pre-selection of 30 articles where 23 articles were used, which comprised the search text and a systematic review that addressed these descriptors.

Third step: All ethical criteria were followed according to the standards, articles that met the pre-established inclusion criteria.

Subsequently, in possession of the data and the potential bibliography, a qualitative analysis and an analytical reading of the selected literature were carried out. In addition, a careful analysis of the articles was performed to support the discussion. The importance of preserving the author's idea was also considered.

Fourth step: After making a graph with the SISAB data, reading and analyzing the articles, the result and discussion on the Evidences of Nursing Care During Prenatal Care were elaborated.

Fifth stage: This study was carried out from August 2019 to December 2020 and followed the standards of the NIP (Interdisciplinary Research Center) of the Centro Universitário ICESP in Brasília and the Brazilian Association of Technical Standards (ABNT).

Results e Discussion

Primary health care is understood as the gateway to health services, and the focus of action, in the area of women's health, is prenatal care, which consists of care, conduct and procedures due to the health of the pregnant woman and the fetus in order to detect, cure or control diseases early, avoiding complications during pregnancy and childbirth. It also proposes to ensure quality maternal and fetal health and, thus, consequently, reduce fetal and maternal morbidity and mortality rates.⁷

Prenatal care is an appropriate time to develop educational activities using, as tools, dialogue, bonding and listening to pregnant women and their companions, aiming to bring professionals and patients closer together, strengthening knowledge and clarifying doubts. It is up to the professionals who assist this population to constantly evaluate this strategy in order to control the effectiveness of the guidelines given, since the quality of the service provided is an important factor for successful prenatal care.⁸

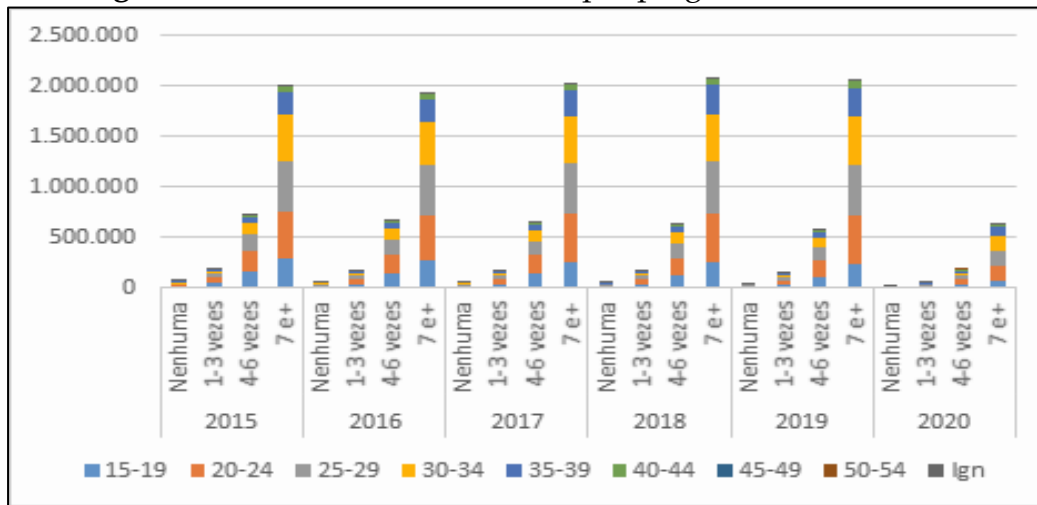
According to the Low-Risk Prenatal Care Booklet, nurses are responsible for guiding women and their families on the importance of prenatal care, breastfeeding and vaccination, being able to carry out prenatal care during pregnancy. of low risk interspersed or with the doctor and also request additional tests. In addition to consultations, it must develop educational activities, both individual and in groups (groups or waiting room activities), seek to identify pregnant women with any sign of alarm and/or identified as high risk and refer them to a medical consultation. If classified as high risk and there is difficulty in scheduling a medical appointment (or a significant delay for this service), the pregnant woman must be referred directly to the reference service.⁵

In Brazil, although prenatal care has good coverage, as shown in Figure 1, it needs to be revised, as there is low compliance with the program's official standards, as described in the Low-Risk Prenatal Care Notebook.⁹

According to Figure 1, it can be seen, by the number of prenatal consultations per pregnant woman, that most perform more than the recommended minimum. But, even with this amount, the number of maternal deaths from preventable causes in Brazil is alarming.³ However, Anjos and Boing show that the greater the number of prenatal consultations, the lower the rates of neonatal and maternal mortality; lower are the prevalence of prematurity, low birth weight and hypertension during pregnancy, and higher are the coverage of tetanus vaccination and supplementation with ferrous sulfate.¹⁰

It should not be thought that only the bureaucratic passage of pregnant women through the service promotes quality of care, and conditions should be offered that allow for the early uptake of pregnant women as well as their reception, aiming, above all, for adherence to prenatal care.⁹

Figure 1- Number of consultations per pregnant woman.



Source: SINASC- MS

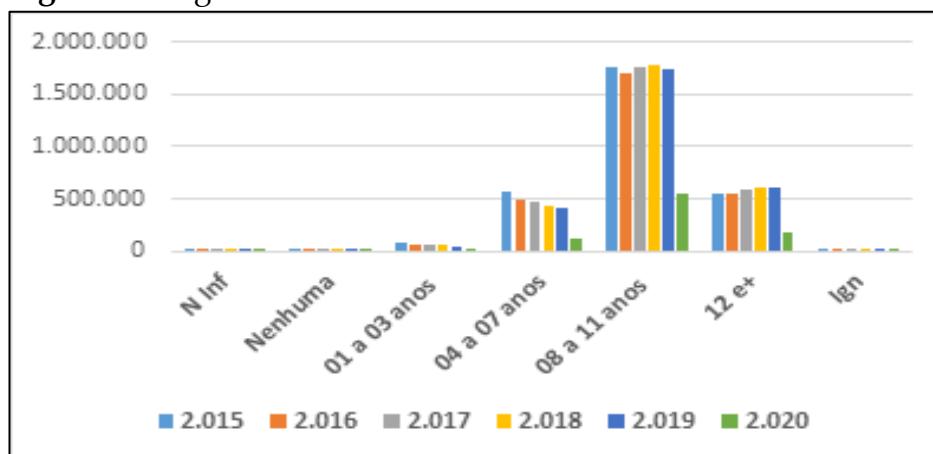
The figure draws attention to the age of the pregnant woman, showing the occurrence of pregnancy at an advanced age (over 40 years old) which, in the current context, should be seen as natural and started to be seen as a result of social changes and medical progress.

However, greater concern is needed during the assessment, looking for aspects that may be associated with possible complications during pregnancy.¹¹

Late pregnancy requires intense obstetric care, as prenatal care becomes high risk. The woman and her partner/companion must be oriented towards possible dangers. However, it is possible that a healthy pregnancy occurs without problems and difficulties.¹²

The Brazilian population is not framed in a single social model, as there are peculiarities in each region/locality in relation to health care, which makes it difficult to generalize the type of care provided by the institutions.¹³ It is highlighted, in Figure 2, the level of education of pregnant women, showing that 60% of pregnant women have between eight and 11 years of schooling and only 18% have 12 or more years of schooling.

Figura 3- Pregnant woman's education level.



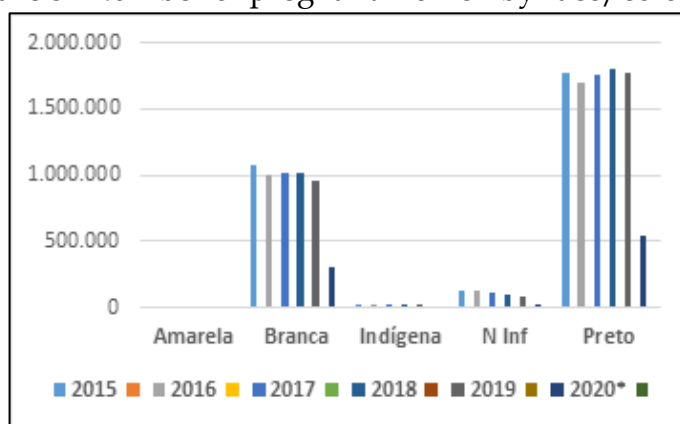
Source: SINASC- MS

Education is a factor that influences the planning of a pregnancy, and women with low education are more likely to have an early and unplanned pregnancy. In general, they drop out of school and do not have access to knowledge about sexuality and family planning, making their reproductive health vulnerable.¹⁴

Thus, expanding knowledge about prenatal consultations in a country marked by socioeconomic inequalities and access to health services - despite the fact that care for pregnant women is offered free of charge within the scope of a public and universal health system - is essential to support health policies and actions in this area.¹⁵

With regard to race/color, 60% of pregnant women are black, as shown in Figure 3. Race/color has been used in studies to measure social differences, treatments and health outcomes, and differences in access and care have already been found. and in the outcomes of health condition due to race/color in Brazil, the United States and the United Kingdom.¹⁶

Figure 3- Number of pregnant women by race/color



Source: SINASC- MS

The nurse who works in prenatal care stands out for the availability for dialogue, listening and necessary clarification, which shows positive characteristics, such as receiving well, guiding and answering questions, attitudes that make the nursing consultations characterized as good and welcoming.¹⁷

The moment of the pregnant woman's first contact in the prenatal consultation is marked by insecurity, fear and happiness at the same time, since the discovery of a new being was a short time ago, considering that prenatal care should be started as soon as possible. as fast as possible. But, over time, they realize that that moment is not just to see how the baby is doing, it is also to know how they are feeling, how the arrival of the new family member is going. With this, it is clear that what was marked by fear is now something that brings information and allows them to acquire control over their own body and that gives the pregnant woman the power to decide on her own pregnancy. If necessary, the reception during prenatal care, a moment of paramount importance in the life of the pregnant woman.¹⁸

In addition to the consultations having to follow a periodicity, the importance of the companion should also be highlighted, which, for many, may seem silly, but the companion is essential not only at the time of delivery, but in prenatal consultations . In prenatal care, you can align the couple's wishes, strengthen this bond, show them the importance of support. The companion, as well as the pregnant woman, must have access to information throughout the

prenatal period, as they also go through a moment of discovery, acceptance and, above all, adaptation, because they will be the companion at the time of delivery, they will be the postpartum support network and is the one who will give all the support from the gestation forward. It should not be forgotten that the companion must not be just a boyfriend or husband. For single-career moms, the companion can be the cousin, the sister, the grandmother and even the aunt.¹⁹

Given the above, the nurse is an extremely important professional not only because of the aforementioned attributions, but because she sees the human being (in this case, the pregnant woman) as a whole, always seeking alternatives so that her care really is of quality and with a humanized look, which makes all the difference at this time when pregnant women are often fragile and insecure, undergoing a series of changes. In addition to the nurse having a technical look, he must be concerned with the way of life of each pregnant woman, so that complaints, concerns and anxieties are treated in an individualized and personalized way.²⁰

But what few people know is that the companion is supported by Law No. 8.069, of July 13, 1990, which states that "the pregnant woman and the parturient are entitled to 1 (one) companion of their choice during the prenatal period, labor and immediate postpartum..." Thus, the presence of a companion must always be encouraged, as the pregnant woman has the right and must have a companion not only to take care of bureaucratic things upon arrival at the maternity ward or to take her to prenatal care and, yes, so that the companion is always there to offer help, to offer words and encouragement, to help with the bath, to provide psychological support.²¹

Another point that leads many pregnant women to become worried and insecure is which hospital they should go to to have the baby. This right is guaranteed by Law No. 8.069, of July 13, 1990, which provides: "the health professionals of reference of the pregnant woman will guarantee her link, in the last trimester of pregnancy, to the establishment where the delivery will take place, guaranteeing the woman's right of choice." Some pregnant women forget and think that they can look for any hospital in the public health network at the time of delivery, which leads them to wander through hospitals because, sometimes, professionals inform that this is not the hospital of reference.²¹

A assistência ao pré-natal tem como objetivo o acolhimento da gestante desde o diagnóstico da gestação, para que, de fato, o pré-natal tenha sua qualidade estabelecida permitindo o diagnóstico e o tratamento de patologia ou qualquer situação especial, bem como vacinação e realização de exames com resultados em tempo oportuno.¹

The role of nurses in prenatal care still faces barriers. However, the positive impact of their actions during pregnancy, childbirth and the puerperium are evident and highlighted by pregnant women. This evidence is given by the praise registered in the services and by the search of these professionals to resolve doubts. And it is the actions developed by nurses during prenatal care that will enable the development of pregnancy with a guarantee of safety for the mother and the fetus, thus meeting the needs of all pregnant women [1].

The continuous monitoring of prenatal care ensures healthy pregnancy and childbirth for the mother and baby, showing the importance of regularly following the consultations and participating in the actions taken, which involve

health promotion and prevention of the binomial, as well as preparation for childbirth and puerperium.²²

As described by Alves et al. (2013), part of the nurse's attributions, during prenatal care, is a humanized look at labor, seeking the individuality of each patient and making this professional a differential in the parturition process..²³

Conclusion

The nurse is the professional trained to conduct prenatal care in order to favor the promotion and prevention of the health of the mother-child binomial.

Guidance regarding the pregnancy-puerperal process are actions developed to prepare the pregnant woman and family members for each stage of pregnancy and the changes that this condition causes, whether physiological or emotional.

These actions taken by the nurse will result in a healthier pregnancy, preparing the pregnant woman for the time of delivery and thus directing her to be the protagonist at that moment, one that is a very special moment.

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Assessment of absenteeism of the nursing staff in the hospital context of a public emergency care unit

Avaliação do absenteísmo da equipe de enfermagem no contexto hospitalar de um pronto socorro público

Evaluación del absentismo del personal de enfermería en el contexto hospitalario de una sala de urgencias pública

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REVISA

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RESUMO

Objetivo: Analisar o absenteísmo entre a equipe de enfermagem de uma unidade do Pronto Socorro de um Hospital Público Escola do Distrito Federal. **Método:** Trata-se de um estudo transversal de abordagem quantitativa, realizado com 29 profissionais de enfermagem lotados na unidade de Pronto Socorro de um Hospital Público Regional do Distrito Federal. Utilizou um instrumento para caracterizar a população do estudo e para identificar os fatores relacionados ao absenteísmo. **Resultado:** Evidenciou que 75,9% eram técnicos de enfermagem e 24,1% enfermeiros, os fatores relacionados ao absenteísmo foram 58% a licença médica e atestados médicos. Os principais fatores internos que colaborou com absenteísmo relacionou a dor ($p \leq 0,039$) foram fatores internos relacionados a instituição, não dispor de materiais para assistência, falta de membros da equipe, sentir constantemente cansado, sobrecarregado, e trabalhar com a equipe reduzida. **Conclusão:** Os fatores identificados a instituição e os relacionados aos funcionários e a dor, devem ser analisados no cenário ocupacional a fim de contribuir para a elaboração do diagnóstico situacional e intervir nos fatores determinantes. Com vistas a contribuir para a melhoria da qualidade de vida da equipe de enfermagem no âmbito laboral quanto pessoal.

Descritores: Absenteísmo; Equipe de Enfermagem; Emergências.

ABSTRACT

Objective: To analyze absenteeism among the nursing team of an Emergency Care Unit of a Public Teaching Hospital in the Federal District. **Method:** This is a cross-sectional study with a quantitative approach carried out with 29 nursing professionals working in the Emergency Care Unit of a Regional Public Hospital in the Federal District. An instrument was used to characterize the study population and identify factors related to absenteeism. **Results:** The study showed that 75.9% were nursing technicians and 24.1% nurses; the factors related to absenteeism were sick leave and health certificates (58%). The main internal factors that contributed to absenteeism were pain ($p \leq 0.039$), internal factors related to the institution, not having materials for assistance, lack of team members, feeling constantly tired and overloaded, and working with a reduced team. **Conclusion:** The factors identified at the institution and those related to employees and pain should be analyzed in the occupational scenario in order to contribute to the elaboration of the situational diagnosis and intervene in determining factors with a view to contributing to the improvement of the quality of life of the nursing team in the work and personal spheres.

Descriptors: Absenteeism; Nursing team; Emergencies

RESUMEN

Objetivo: Analizar el ausentismo entre el equipo de enfermería de una unidad de Sala de Emergencias de una Escuela Hospitalaria Pública del Distrito Federal. **Método:** Se trata de un estudio transversal de abordaje cuantitativo, realizado con 29 profesionales de enfermería que trabajan en la unidad de Sala de Emergencias de un Hospital Público Regional del Distrito Federal. Utilizó un instrumento para caracterizar la población de estudio e identificar factores relacionados con el ausentismo. **Resultado:** Mostró que 75,9% eran técnicos de enfermería y 24,1% enfermeros, los factores relacionados al ausentismo fueron 58% licencias médicas y pruebas médicas. Los principales factores internos que colaboraron con el ausentismo relacionado con el dolor ($p \leq 0,039$) fueron factores internos relacionados con la institución, falta de materiales para la asistencia, falta de miembros del equipo, sentirse constantemente cansado, abrumado y trabajar con el equipo reducido. **Conclusión:** Los factores identificados por la institución y los relacionados a los empleados y el dolor deben ser analizados en el escenario ocupacional con el fin de contribuir a la elaboración del diagnóstico situacional e intervenir en los factores determinantes. Con el fin de contribuir a la mejora de la calidad de vida del equipo de enfermería en el ámbito laboral y personal.

Descritores: Ausentismo; Equipo de Enfermería; Emergencias.

Introduction

A high rate of absenteeism occurs in the nursing team in more complex hospitalization units such as the Emergency Care Unit (ECU) and the Intensive Care Unit (ICU), especially among workers who have a permanent bond with the institution.^{1,2}

According to the Federal Council of Nursing (COFEN), there are currently 2,521,737 nursing workers in Brazil in 2021, an important workforce in the context of care along with other health professionals.³ Absenteeism corresponds to the moments of absence of a worker from his place of work, and absences are classified as planned and unplanned; delays are also considered.⁴ According to COFEN, these absences can be planned and unplanned: vacations, holidays and days off are considered planned absences; and sick leaves and occupational accidents are unplanned absences. Therefore, in the present work, absenteeism refers to unplanned absences.⁵

Nursing activities in different scenarios and contexts are directly related to the quantity of human resources and quality of care is associated with the proportion and provision of the team established in the unit. Considering that the ECU is a 24-hour service, the quantitative proportion of employees becomes essential for personnel management.^{6,7} The urgency and emergency environment is characterized by being a tense and agitated place; ECUs receive critical patients before being treated in a surgical environment and who may need to be admitted to an ICU.⁸

People referred to ECU in critical conditions need immediate life support in order to have the body's basic physiological functions (blood pressure, heart rate, respiratory rate) reestablished, as well as the body's acid-base balance. Other patients only need observation to maintain stable hemodynamics.^{1,9,10,11} Professionals who work in this environment must perform the procedures in a timely and assertive manner. Thus, the work can generate stressful situations related to emotional and physical damage to the workers and can interfere with their quality of life.^{12, 13}

Thus, research has been made on the performance of nursing professionals in this environment and its relationship with absenteeism, identifying predictors⁷, the causes of absenteeism in the national^{1,12,13} and international¹⁰ environment, relationships with job satisfaction⁹ and literature reviews.^{2,6} The main illnesses related to absenteeism of professionals in the hospital context are pathologies of the respiratory, genitourinary, digestive, female reproductive system, and sense organs.^{1,2,4,6,7} Absenteeism becomes a major problem and challenge for hospital management.¹³

Given the complexity of the topic and its related factors, knowing the profile of a nursing team in an ECU of a Public Teaching Hospital in the Federal District can help identify the factors involved in this process, with a view to help in planning this problem in the hospital environment. Thus, this work aimed to analyze the absenteeism of the nursing team of an ECU of a Public Teaching Hospital in the Federal District.

Method

This is a cross-sectional study with a quantitative approach carried out in a Public Teaching Hospital in the Federal District-DF from April to June 2016.

The population consisted of the 111 professionals of the ECU nursing team. According to statistical criteria and sample calculation, the calculated sample consisted of 19 professionals.¹⁴ The final sample consisted of 29 professionals - 7 nurses and 22 nursing technicians. Inclusion criteria were: being a member of the nursing team working in the ECU, working in the unit for at least six months, working at least 20 hours a week, and freely accepting to participate in the research. Exclusion criteria were pregnant workers, dental problems, maternity leave, adoption, death of family members, and monitoring of dependents (mother, father, and children).

Absenteeism was considered in this research as the moments of absence of the worker from his place of work.⁴ The absences considered were unplanned such as sick leave, unexcused absences, and occupational accidents.⁵

Two instruments were used for data collection, one to identify the socio-demographic profile of the population (nurse and nursing technicians) and the other to identify the determining factors for absenteeism (tiredness, dissatisfaction, lack of motivation, sick leave, health certificates, conditions related to work, and reasons related to pain). Pain was assessed using the Visual Analog Scale (VAS) to be associated with factors related to absenteeism. Continuous variables were described as mean and standard deviation (\pm SD) or mean (M), Minimum (Min.), and Maximum (Max.) values.

Data were analyzed using the Statistical Package for Social Sciences (SPSS®) version 19.0. Normality of distribution of the variables was assessed using the Kolmogorov-Smirnov test. Therefore, means were compared between the groups using ANOVA. A significance level of $p > 0.05$ was considered.

This research is in accordance with the ethical standards of CNS resolution 466/2012 and was approved by the Research Ethics Committee of the Health Sciences Education and Research Foundation (FEPECS) of the Federal District, protocol number: 52609216.7.0000.5553.

Results

Of the 29 professionals evaluated, 75.9% were female, with a mean age of 38.48 ± 7.30 years (Min. = 24, Max. = 52), 48.3% were married, 65.6% had a monthly income above 6 minimum wages, and 48.9% reported not having children. About the professional category, 27.9% were nurses and 75.9% were nursing technicians. Graduate level education was predominant (44.5%) and it is

noteworthy that many nursing technicians were already nurses, but worked as nursing technicians (Table 01).

Table 1- Socio-demographic profile of nursing workers at a public hospital in the Federal District, Brasília 2016.

Variables	n	%
Professional category		
Nurse	7	24.1
Nursing technician	22	75.9
Sex		
Female	22	75.9
Male	7	24.1
Schooling		
Technical level	7	24.1
Incomplete University education	6	20.7
Complete University education	6	20.7
Post-graduate degree	8	27.6
Specialist	2	6.9
Marital status		
Single	13	44.8
Married	14	48.3
Widowed	1	3.4
Stable union	1	3.4
Family monthly income		
2 MW	1	3.4
3 MW	3	10.3
4 MW	2	6.9
5 MW	4	13.8
6 MW or more	19	65.6
Number of children		
1 to 2	11	37.9
3 to 4	4	13.8
Not applicable	14	48.3

About the time of work at the unit, 34.5% had been working for 1 to 5 years and 20.7% for 11 to 15 years. When asked about pain, it was found that 13.8% had been working for more than 15 years and had higher pain intensity, described as severe $M=8.25\pm 0.95$ (Min.=7.0 Max.= 9.2). Regarding the workload, 72.4% had a workday of 40 hours, while only 10.3% worked 60 hours; they also had greater pain intensity, intense $M=8.67\pm 0.57$ (Min.=8,1 Max.=9.3) (Table 2).

Table 02. Profile characterization of work associated with pain intensity (Visual numerical scale - 0-10 points) of nursing workers in a public hospital in the Federal District, Brasília 2016.

Length of service in the emergency care unit	N	%	M	Sd	Mini	Maximu
					mum	m
Less than 1 year	4	13.8	6.00	4.08	0	9
1 to 5 years	10	34.5	5.30	2.79	0	8
6 to 10 years	5	17.2	7.20	1.78	4	8

11 to 15 years	6	20.7	7.33	3.72	0	10
Over 15 years	4	13.8	8.25	0.95	7	9
Weekly workload						
20 hours	4	13.8	6.75	1.89	4	8
24 hours	1	3.4	0	0.00	0	0
40 hours	21	72.4	6.52	2.92	0	10
60 hours	3	10.3	8.67	0.57	8	9
Other employment bond						
Yes	8	27.6	8.00	0.92	7	9
No	21	72.4	6.00	3.24	0	10

Most professionals reported having no other occupation (72.4%). There was a greater tendency towards pain among those who had another job (27.6%) with a mean pain of 8.0 ± 0.92 (Min.=7.2 Max.=9.4). Regarding reasons for absenteeism, the prevalence was 58.6% for absences due to sick leave, 58.6% for health certificates, and 27.6% due to pain (Table 3).

Table 03. List of factors related to absenteeism and pain intensity (Visual numerical scale - 0-10 points) in nursing workers of a public hospital in the Federal District, Brasília 2016.

Reasons associated with the absence	n	%	M	SD*	Minimum	Maximum
Personal reason						
Yes	8	27.6	8.25	1.83	4	10
No	21	72.4	5.90	3.03	0	9
Extreme tiredness						
Yes	3	10.3	9.33	0.57	9	10
No	26	89.7	6.23	2.91	0	9
Dissatisfaction						
Yes	2	6.9	9.50	0.70	9	10
No	27	93.1	6.33	2.90	0	9
Demotivation						
yes	1	3.4	10	0.00	10	10
no	28	96.6	6.43	2.89	0	9
Sick leave						
Yes	17	58.6	6.88	2.97	0	10
No	12	41.4	6.08	2.90	0	9
Health certificate						
Yes	17	58.6	6.94	2.24	1	10
No	12	41.4	6.00	3.71	0	9
Reason for pain						
Yes	8	27.6	8.63	0.91	7	10
No	20	69.0	5.70	3.11	0	9

*Standard deviation

When measuring these factors and relating them to the pain scale, it was verified that all reasons presented greater intensity among professionals who had absences compared to those who did not miss work. Leaves due to pain were associated with more intense pain, described as severe $M=8.63 \pm 0.91$

(Min=7.3 Max=10.0), followed by health certificates as moderate M=6.94±2.24 (Min.=0.0 Max.=10.0), and finally the sick leave, moderate M=6.88±2.97 (Min.=0.0 Max.=10). Regarding absences for personal reasons, 27.6% reported severe pain M=8.25±1.83 (Min.=4.2 Max.=10.0) and there was a greater tendency to pain in those who had absences from work (Table 3).

Absences due to extreme fatigue represented 10.3% of absenteeism in the unit. An increase in pain intensity was noted, described as intense M=9.33±0.57 (Min.=9.1 and Max.=10.0), when compared to non-absents for the related reason. When asked about motivation and satisfaction with the institution, only 6.9% showed lack of motivation and 3.4% showed to be dissatisfied (Table 3). Absences due to internal problems at the institution, only 20.7%, had already been absent from work for this reason (p<0.000). When asked if they had material to carry out their work, 58.6% said they did not (p<0.039) and 10.3% mentioned that the lack of a member of the nursing team made the work difficult for them (p<0.025) (Table 3).

Regarding tiredness, 51.7% of workers said they were constantly tired (p<0.001) and overloaded (p<0.014) and 48.3% had acquired a health problem after starting to work in the ECU. When analyzing the pain scale, it was verified that all presented greater intensity. The constantly tired 51.7% were more predisposed to pain (M=6.53±2.92, Min=0.0 Max=10.0), followed by the overloaded (M=6.80±2.36, Min.=0.0 Max.=10.0), and finally the mean of those who reported having contracted some disease (M=6.86±2.95, Min.=0.0 Max.=10.0) (Table 4).

Table 4. Characteristics of the institution's internal factors that contribute to absenteeism related to pain of nursing workers in a public hospital in the Federal District, Brasília 2016.

Variables	N	%	M	SD	MIN.	MAX.	p
Internal factors at the institution have already caused me to miss work							<0.000
Yes	6	20.7	7.5	2.25	4	10	
No	22	75.9	6.32	3.13	0	9	
Neutral	1	3.4	6	0	6	6	
I have materials to do my job							0.039
Yes	3	10.3	8	1	7	9	
No	17	58.6	6.41	2.74	0	9	
Neutral	9	31	6.33	3.7	0	10	
The absence of any team member makes my work difficult							0.025
Yes	3	10.3	5	4.35	0	9	
No	17	58.6	6.29	2.68	0	10	
Neutral	9	31	7.56	2.92	0	9	

I feel constantly tired							0.001
Yes	15	51.7	6.53	2.92	0	10	
No	4	13.8	2.75	3.4	0	7	
Neutral	10	34.5	8.1	0.56	7	9	
I feel overwhelmed							0.014
Yes	15	51.7	6.8	2.36	0	10	
No	4	13.8	3.25	3.59	0	8	
Neutral	10	34.5	7.5	2.75	0	9	
I constantly have to work with the reduced team							0.002
Yes	25	86.2	7	2.46	0	10	
No	3	10.3	2.33	4.04	0	7	
Neutral	1	3.4	8	0	8	8	
I constantly work overtime							0.083
Yes	5	17.2	5.6	3.2	0	8	
No	20	69	6.75	3.05	0	10	
Neutral	4	13.8	6.75	2.21	4	9	
I developed a health problem after starting work in the emergency care unit							0.102
Yes	14	48.3	6.86	2.95	0	9	
No	11	37.9	5.5	3.17	0	9	
Neutral	4	13.8	8.2	0.50	8	9	

Professionals were asked about overtime and only 17.5% reported doing it. Another question raised was about the size of the team, 86.2% stated that they constantly worked with a reduced team ($p < 0.002$), and they had greater pain intensity ($M = 7.00 \pm 2.46$, $Min. = 0.0$ $Max. = 10.0$) (Table 4).

Discussion

The present study evidenced the prevalence of women with technical training in nursing, married, and of working age. The female population is present in most studies involving the ECU nursing teams.^{1,6,9,12,15} Similar results were found in another study carried out in an emergency context such as the ICU of a teaching hospital in the city of São Paulo, in which 85.5% of the total of 126 professionals evaluated were women.¹⁶ These data confirm that nursing continues to be a predominantly female profession due to cultural aspects involved in the creation of nursing as a science.^{5,17}

Absenteeism with a predominance of females is related to the insertion of women in the labor market, especially in nursing. In addition to carrying out household chores, including taking care of children, these women work. The performance of these activities together can favor the appearance of illnesses related to the double burden at home and also to the physical and mental

burden of the service, which can consequently contribute to the absence of these servers¹⁸. A study carried out in Goiânia with 602 professionals from the nursing team of the university hospital in the low, medium and high complexity care sectors showed a predominance of 92.9% of absenteeism cases for females.¹⁹

The mean age of respondents in this study was 38 years, comprising professionals from 24 to 52 years of age, a result similar to the study with 189 employees of the public hospital of Montes Claros, the mean prevalence of absenteeism in the age group was 25 to 45 years.²⁰ Other studies identified higher mean ages.^{1,7}

Regarding the professional category, similar results were found in another study: most of the individuals in the sample had technical training.²¹ In another study at the Hospital de Federal do Triângulo Mineiro with 636 nursing professionals, nursing technicians were also prevalent (50.54%), followed by nursing assistants (30.47%), and nurses (13.02%).²² As for marital status, the present study showed that the majority were married, a result similar to another study with nursing technicians and assistants, as a team profile of studied nursing.²³

The professional's role and working conditions are related to absenteeism in nursing. In their professional practice, nurses play the leadership role, acting in management, while technicians perform work that requires technical procedures and physical strength, such as change of position, bed/chair transfer, leading to greater musculoskeletal morbidities and leaves. In the study conducted in the Triângulo Mineiro, absenteeism prevailed among technicians, compared to nurses.²³

The work of the nursing team in the ECU can also involve physical effort, working hours of 40 hours on average, multitasking, incorrect anatomical positions, and stress. These characteristics can imply the professionals' physical and emotional wear, increasing their propensity to pain and sick leaves.^{5,22}

Nursing professionals experience moments of pain and suffering on a daily basis, in addition to often having to deal with death in the ECU, a place with great demand and patient turnover. These correlated factors can trigger a relationship between stress and physical wear.^{7,13}

In the present study, among unplanned absences, sick leave and health certificates stood out, which may be related to the overload of the team, followed by leaves for personal reasons and pain. The cause of absenteeism is multifactorial, involving factors related to the institution, and individual, social and family problems, either isolated or concomitant.²⁴

In the present study, sick leaves were the main causes of absences. Similar results were found in another study carried out with 127 nurses, 381 nursing technicians, and 94 nursing assistants at the university hospital in Goiânia, which showed that the sectors that presented most health certificates were medical clinic (11.2%) and the ECU (9.1%), sectors that require great physical effort on the part of the workers.²⁵

Another study carried out with municipal civil servants also in Goiás in the period 2005 to 2010, about the reason for the licenses for health treatment, points out that of the 28,230 civil servants, 40,578 sick leave were registered for health treatment, with 52.0% of the licensed were women and 55.9% were over 40 years old.²⁶

Nursing is considered one of the professions with the highest risk of developing work-related low back pain. The nursing team is inserted in a work context that requires long periods of handling debilitated and immobilized patients in bed, and they are often exposed to incorrect postures.²⁷

The present study showed that the third biggest cause of absence was pain and when asked about the development of a health problem after starting work in the ECU, most said they had experienced that. Studies point to diseases related to the musculoskeletal system of nursing professionals as the cause of absenteeism, related to long working hours and the continuous exposure of the body to risk factors, inadequate work environment.^{1,6,9,28}

The regularity of pain can be related to the unhealthy environment of the hospital. Another relevant factor about absences is related to the insufficient number of nursing professionals. The reduced quantity directly influences the quality of care provided to the patients, as the absence of any server can result in an overload of work for the team and, therefore, those present may not be able to provide the development of nursing care according to established standards by people management, which can lead to deficits and difficulties in the care assumed at work.²⁷ Although only a tenth part of the present study state that the lack of a team member makes the work difficult.

Attention is drawn to the excess work that, depending on the age of the worker, may not cause to problems at present but it will in the future as it can contribute to exertions now that will trigger musculoskeletal pathologies.^{2,21}

The length of leave is related to the length of service at the unit: professionals who provide nursing care continuously every year have greater physical and mental wear, generating absences due to illness.²⁹

In the present study, when asked about the adequate amount of materials and equipment to carry out the daily activities, most participants affirmed that there was always a lack of basic input, a situation that made their work difficult, generating emotional exhaustion and stress. In this sense, the work of nursing professionals in the ECU was evaluated in a public health service in Porto Alegre and it was identified that public institutions generally do not provide subsidies for professionals to perform procedures they deem necessary to restore the patient's functions, providing a distressing environment, thus increasing the level of stress on the part of the team.¹⁰ Broken equipment and lack of material resources are problems experienced daily by ICU professionals, a unit similar to the ECU. The unfavorable conditions of the service can make the work difficult, and adaptations may be needed to carry out the activities. The nursing team tries to provide health care in these conditions, which could be dedicated to patient care, and this leads to a deficit in care and consequently tiredness and exhaustion of the professionals.^{16,22,28,31}

Another factor considered relevant for the assessment of absenteeism is motivation, which can favor or harm aspects of personal well-being related to work.³² In this study, most professionals were motivated and satisfied with the organization, situation contradictory as many workers say they feel tired, overwhelmed and often lack basic material to do the work. Another study also found similar results developed in three high complexity emergencies in Recife with physicians and nurses, motivation was evidenced as a determining factor for good professional performance. For nurses, inappropriate conditions in the workplace are the main element for demotivation, as it leads to a decrease in the quality of care in patients' care.³³

The research showed that the studied population was consistent with other studies on absenteeism in nursing.^{6,9,12,15,21,22} The study showed that among the unplanned absences, sick leaves, health certificates, personal problems, and pain were factors related to absenteeism. It was expected that other variables such as motivation and satisfaction would interfere with the workers' leaves, but there was no evidence of such a relationship, unlike other studies.^{34,35,36,37,38}

It is emphasized that this study had some limitations, one example being the cross-sectional design that does not allow the establishment of cause-and-effect relationships. Thus, it is suggested that this study be replicated in other similar populations and with a larger number of participants.

Conclusion

Absenteeism was related to sick leaves, health certificates, pain periods, and personal problems. In addition, professionals who had absences had greater pain intensity. It was found through other researches that the problem of absenteeism is related to motivation and job satisfaction.

These findings can collaborate with nursing management to understand the reasons that trigger absences in order to provide an improvement in the quality of life at work. The nursing leadership must recognize the determining factors for absenteeism and analyze them in order to intervene in a positive way, developing strategies aimed at reducing these absences.

The final result of this work may also cooperate with programs aimed at promoting health and preventing health problems in the workplace related to absenteeism in the nursing team.

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Prostate cancer in men treated at a high-complexity healthcare unit: epidemiological profile

Câncer de próstata em homens atendidos em uma unidade de alta complexidade em saúde: perfil epidemiológico

Cáncer de próstata en hombres atendidos en una unidad de salud de alta complejidad: perfil epidemiológico

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REVISA

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RESUMO

Objetivo: caracterizar o perfil epidemiológico do câncer de próstata em homens atendidos em uma unidade de alta complexidade em saúde na Bahia, Brasil. **Método:** Estudo descritivo, transversal, quantitativo, realizado em uma unidade de alta complexidade de referência em um município da Bahia, Brasil. Realizou-se busca exploratória de dados primários coletados em prontuários de pacientes com câncer que estavam iniciando e/ou em tratamento, entre janeiro de 2013 a dezembro de 2015. A amostra foi composta de 662 registros, os quais foram submetidos à análise estatística. **Resultados:** Mais de 60% dos pacientes residiam na área urbana, cerca de 90% são atendidos pelo Sistema Único de Saúde (SUS). O câncer de próstata obteve maior prevalência em homens com idade acima de 60 anos, principalmente na faixa etária 70-79 anos. A análise histológica da biópsia indicou que a maioria dos pacientes já se encontravam na escala G2, classificado como médio risco, havendo a possibilidade de avançar para o escore G3 - alto risco. **Conclusão:** O perfil epidemiológico indicou prevalência elevada para o câncer de próstata, com recorte etário avançado, perfil histológico relevante para a vigilância dos pacientes e expressiva cobertura de atenção à saúde na esfera pública.

Descritores: Neoplasias do Homem; Câncer de Próstata; Saúde do Homem; Fatores de Risco.

ABSTRACT

Objective: to characterize the epidemiological profile of prostate cancer in men treated at a high-complexity healthcare unit in Bahia, Brazil. **Method:** Descriptive, cross-sectional, quantitative study, carried out in a high-complexity reference unit in a municipality in Bahia, Brazil. An exploratory search of primary data collected from medical records of cancer patients who were starting and/or undergoing treatment was carried out between January 2013 and December 2015. The sample consisted of 662 records, which were submitted to statistical analysis. **Results:** More than 60% of patients lived in urban areas, about 90% are assisted by the Unified Health System (SUS). Prostate cancer was more prevalent in men over 60 years of age, especially in the 70-79 age group. The histological analysis of the biopsy indicated that most patients were already in the G2 scale, classified as medium risk, with the possibility of advancing to the G3 score - high risk. **Conclusion:** The epidemiological profile indicated a high prevalence of prostate cancer, with an advanced age range, relevant histological profile for patient surveillance and significant coverage of health care in the public sphere.

Descriptors: Human Neoplasms; Prostate cancer; Men's Health; Risk factors

RESUMEN

Objetivo: caracterizar el perfil epidemiológico del cáncer de próstata en hombres atendidos en una unidad de salud de alta complejidad en Bahía, Brasil. **Método:** estudio descriptivo, transversal, cuantitativo, realizado en una unidad de referencia de alta complejidad en un municipio de Bahía, Brasil. Entre enero de 2013 y diciembre de 2015 se realizó una búsqueda exploratoria de datos primarios recolectados de historias clínicas de pacientes oncológicos que estaban iniciando y / o en tratamiento. La muestra estuvo conformada por 662 registros, que fueron sometidos a análisis estadístico. **Resultados:** Más del 60% de los pacientes vivían en áreas urbanas, alrededor del 90% son atendidos por el Sistema Único de Salud (SUS). El cáncer de próstata fue más prevalente en hombres mayores de 60 años, especialmente en el grupo de edad de 70 a 79 años. El análisis histológico de la biopsia indicó que la mayoría de los pacientes ya se encontraban en la escala G2, clasificada como riesgo medio, con posibilidad de avanzar a la puntuación G3 - riesgo alto. **Conclusión:** El perfil epidemiológico indicó una alta prevalencia de cáncer de próstata, con rango de edad avanzado, perfil histológico relevante para la vigilancia del paciente y cobertura significativa de atención de salud en la esfera pública.

Descritores: Neoplasias humanas; Câncer de próstata; Salud de los hombres; Factores de riesgo.

Introduction

A strategy was developed to reach the male population, known as the National Policy of Comprehensive Care for Men's Health (PNAISH), which aims to improve health and develop care that values the integrality of men.¹

According to the Ministry of Health (2009)¹ for every three adult deaths, two are adult deaths, two are male deaths. They live on average seven years less than women. One of the causes of male mortality is prostate cancer, which is the fourth leading cause of death from neoplasms in Brazil, accounting for 6% of deaths in this group. Both incidence and mortality are high with increasing age, especially after age 50. Therefore, it is necessary to carry out specific tests aimed at preventing the disease, in order to make possible the possibility of cure.²

PNAISH was created in order to reach a population that only seeks health units when it is on the threshold of the disease, and with it, demanding specialized and high cost healthcare.¹ In this sense, one can also reflect on the prophylactic attitude of the vast majority of male population strains that is resistant to preventive health actions and does not seek basic health units for numerous reasons, including some of cultural order.³⁻⁴

One of the main problems related to men's health concerns the prevention of prostate cancer. As the man ages, the incidence of this disease increases. For all this, there is an insistence on the importance of preventive tests and early detection of prostate cancer, as a way to enable greater chances of cure.⁵⁻⁶

One of the main barriers to getting to early prostate diagnosis concerns men's prejudices in undergoing rectal examination and fear of finding that something is wrong.⁷⁻⁸ Another major barrier is the absence of a solid knowledge about disease prevention. It is, however, a challenge, because men tend to assume unhealthy behaviors, generating risk factors for illness. Cultural factors, such as the hegemonic masculinity model, which associates expression of health needs with demonstration of weakness and feminization, should be considered.⁹⁻¹⁰

It can also be emphasized that in the reality in which we work in small municipalities, with low Human Development Index (HDI) in which they do not have large companies installed in their territory, which offer advantages to workers, such as health insurance. In general, in most small towns, the largest employer is the City Hall itself, leaving the Unified Health System (SUS) as a health care plan.

Therefore, it is necessary a differentiated look at the economically active population, because the development of a municipality depends directly on the labor force of its population, which is in line with the actions proposed above, which make access to basic health services more flexible for the population.¹¹

Considering a theme of great relevance for public health, it was necessary to research and study related to prostate cancer due to the high mortality rate in the male population, in addition, the existence of prejudice regarding rectal examination, a fundamental test for an early diagnosis. It is important to emphasize to the population the care necessary for the early prevention of such pathology and to inform the sooner the discovery, the greater the chance of cure. This article aims to characterize the epidemiological profile of prostate cancer in men treated in a high complexity health unit in Bahia, Brazil.

Method

This is a described, exploratory, quantitative cross-sectional observational study, based on the collection of primary data.¹²⁻¹³

This study was developed in a High Complexity Oncology Unit in a municipality in Bahia, Brazil. The researched institution is part of the complementary health network, providing service in the area of health care for more than 100 years in the municipality of residence and in the microregion. Provides care for an articulated and integrated care profile with the service network of the Unified Health System (SUS), in compliance with its principles and guidelines, supported by the ministry ordinances in force in the country.

Also, about the institution in which the research was carried out, it has more than 12,000 patients enrolled in the service, of which they undergo chemotherapy or hormone therapy and radiotherapy treatment per month. The institution also performs more than 2,000 specialized consultations and more than 100 cancer surgery procedures monthly, offering definitive diagnosis and treatment of the most prevalent cancers in Brazil.

The medical records that were analyzed were filed with the Medical and Statistical Archive Service (SAME) of the institution. Regarding the temporal question, all medical records of users living in this municipality and region, who were starting and/or in treatment for prostate cancer and who were registered in this reference service, were selected for the research.

To make up the sample of this study, an exploratory search was conducted for secondary data collected from medical records of patients registered with the ICD (International Classification of Diseases) for prostate cancer (C61) who were admitted to the regional reference health unit for the diagnosis and treatment of cancer in the institution surveyed between January 1, 2013 and December 31, 2015. It is noteworthy that for this research the Database Use Consent Form (TCUD) was applied. And the list of patients enrolled in this unit was made available for this research by the Pharmacy team that searched the Medic Ware system of the medical records filled out with the ICD - Code C61.

Exclusion criteria included medical records that were registered in the health service outside the years of the research and also with other CiDs that did not correspond to prostate cancer. It is noteworthy that among the list available some medical records were discarded because there are insufficient data, because there are not really the C61 ICD (being verified other CIDs), because they had female patients included in this list, by the medical records that were not in the same sector, being in the institution researched for consultations, medical reports and also in the Audit and the medical records that were without flow in the SAME.

In the data collection that occurred between July 2015 and June of this year, the following variables were used based on the objectives of the study to obtain risk factors, sociodemographic profile of patients, treatment methods related to prostate cancer: smoking, alcohol consumption, chemotherapy, radiotherapy, hormone therapy, surgery, children, metastasis, city, histology, age group, agreement and ethnicity. This collected information was recorded in spreadsheets in the Microsoft Excel 2013 version program.

For the complementary analysis of the data and as a way to provide a theoretical support to the findings, a review of available articles was performed using the following databases: Scielo, Medline, Lilacs, Bireme, Virtual Health Library and articles available in the CAPES Journal Portal (Coordination for the Improvement of Higher Education Personnel) in the last 15 years, as well as the use of information available in the classical literature for the definition and characterization of the term cancer.

The data from the field research were submitted to statistical analysis of the simple frequency type as percentages, tables, descriptive characterization of the sample and interpretive analysis of the same. The statistical and comparative method was used, using the Microsoft Excel 2013 version program. We sought to comply with the STROBE criteria.

The analytical variables were: smoking, alcohol consumption, chemotherapy, radiotherapy, hormone therapy, children, surgery (total or partial prostatectomy) and metastasis were classified as Yes, No or Uninformed (NI). While ethnicity was classified as: brown, black, white or uninformed. The variable City was grouped in Feira de Santana or Region. Regarding Histology, it was specified as: G1 (Gleason Adenocarcinoma from 1 to 4); G2 (Gleason Adenocarcinoma from 5 to 7); G3 (Gleason Adenocarcinoma from 8 to 10). Finally, the age group was subdivided into: 40 to 49 years; 50 to 59 years; 60 to 69 years; 70 to 79 years; or ≥ 80 years.

Regarding the ethical aspects of this study, the present study complied with the rules on research involving human beings, following the determinations set out in the Declaration of Resolution 466/2012 - Research Ethics Committee, where the responsible researchers committed themselves to observe this Resolution in all phases of the research, including sending a final report of the project by the researched institution.

Thus, the project was filed with the Ethics and Research Committee and obtained a favorable opinion for the beginning of the activities (CAAE number: 44745515.9.0000.5654 and n: 1,053,628 and the TCUD was involved).

Initially, the reference service was authorized to consent to the access of the researchers to the unit to carry out the research, thus informing the objectives of the study and the guarantee regarding the confidentiality and anonymity of the patients included in the sample during the research, after the dissemination of the results or any other moment.

Results

Since 1999, the mortality rate from prostate cancer in Brazil ranks second among all cancers, because this predominance has been necessary to raise the profile of men affected by this type of cancer, treated at the institution under study. Thus, an organization was used that provided a retrospective search, in order to make it feasible to report and associate epidemiological and demographic issues in this population. A total of 662 patients were selected for the research during the three years surveyed, and in 2013 it was a total of 254 individuals, in 2014 the number of 211 individuals was obtained and in 2015 197 medical records were found that met the prerequisites for this study.

The exploration of the 662 medical records allowed to better evidence the characterization of these men in the search for risk factors related to prostate cancer. In this essence, the profile of patients treated revealed the age group above 60 years, mainly between 70 and 79 years, with the highest number of cases (Table 1).

Table 1 - Composition by age group of the sample studied. Bahia, 2015.

Age Range (years)	Sample(%)
40-49	3 (0,4)
50-59	62 (9,37)
60-69	194 (29,3)
70-79	287 (43,3)
> 80	116 (17,5)
Total	662 (100)

Regarding tobacco use, the research included 177 individuals (26.7%) were smokers and 326 (49.3%) were nonsmokers. However, 159 (24%) did not provide this information, a fact that caused surprise because they were collected in an oncology unit and the smoking habit associated with early death in an annual estimate of 80,000 people, a number that has been growing every year.¹⁴

In this study, the following results were found: 194 (29.3%) were etilists, 306 (46.2%) were not and 162 (24.5%) did not report on this habit, which did not allow a conclusive analysis, due to the large number of uninformed. The biopsy histology of the various patients was verified, revealing that the vast majority (77% - 510 individuals) of the patients had adenocarcinoma with gleason score between 5 and 7 (better known as the G2 scale).

Regarding treatments for prostate cancer, satisfactory results were obtained, because after data collection, it was noticed that a large part of the population performs in a greater amount the treatment of Radiotherapy (57.7%) along with hormone therapy (56.8%), and the minority undergoes Chemotherapy (39.9%). It is important to highlight that within the treatment, radical prostatectomy surgery has an influence on the direction of the patient's conduct, in this case, it was observed that more than half of the population (53.5%) was not necessary for this procedure. Being that the earlier detection and necessary therapy is performed, the lower the chance of promoting the metastasis process of prostate cancer, which, because it is multifocal and heterogeneous, has affinity for bone tissue and lymph nodes, and later can pass to other organs, such as: liver, lung and brain.

In relation to the variable called number of children, the assessment could not be properly evaluated, due to the high number of individuals (47.9%) who did not report this characteristic.

When analyzing medical records, it was found that the majority of the participants of this research are resident in Feira de Santana (64.7%) and use as an agreement the SUS for their care (94.1%), in addition, there was a scarcity of accurate and relevant information about the confirmed diagnosis. In the case of prostate cancer, information on the number of children, presence of metastases, alcohol consumption and smoking were missing. Such incomplete data impaired

a conclusive analysis. These records indicate that most patients seek the service when there was already symptoms. Comparing the type of referral received by patients for prostate cancer treatment, it has been verified that men referred by the SUS have a higher risk of late-stage diagnosis of the tumor compared to those referred by private services or health plans.

Discussion

This study was able to present the evaluation of factors associated with prostate cancer in men treated in a unit of high complexity in health. The limitations of this study are concentrated in the fact that no associations were made between the variables.

This corroborates the literature data that report that prostate cancers have occurred in one third of the male population over 45 years of age in Western nations.¹⁴ It is worth noting that the growth in the incidence in the population is also a result of the increase in the life perspective of Brazilians surveyed during this century, whose propensity is to exceed 70 years in 2020.¹⁵

As in other carcinomas, age is a significant risk record, since both incidence and mortality increase considerably after 50 years. This is a well-determined risk element for prostate cancer,¹⁶ and is often diagnosed from the sixth to eighth decade of life, with infrequent cases below 40 years of age, with a decreasing mortality trend, although in a discrete manner.¹⁷ It is important to emphasize that age is used in standardized screening programs as a reference, although it is not an interference risk factor, thus being a target for prevention campaigns.¹⁸

The family context of a father or sibling affected by this pathology before 60 years of age is another relevant condition, and may amplify the risk of 3 to 10 times in relation to individuals in general, portraying both inherited characteristics and lifestyles shared among family members.¹⁹

Another interference in an extempore diagnosis would be the fact that in prostate cancer unusual cells tend to present a slow development, with tumor duplication time ranging from three to four years, significantly more extensive compared to the duration of duplication of cancers affecting the breast or colon. This factor certainly contributes to prolonged latency up to ten times of the clinical incidence.²⁰

The development of prostate cancer may be associated with ethnicity and geographical differences in the population. This type of neoplasia is about 1.6 times more common in black American men than in white Americans, evidencing that they are disproportionately affected.²¹ Differently, in the present study there was no statistically significant predominance of a given ethnicity, and it is important to highlight that many patients treated (n=277) did not report on this variable.

Smoking is no longer usually associated with prostate cancer incidence and, however, there are indications that smoking may be relatively associated with mortality.²³

Cigarette smoke is a source of exposure to caryomy and tobacco tends to complement the levels of androgens circulating in man. Several case-control studies have been verified about cigarette consumption, however, the lack of consistent conclusions and the clear dose-response relationship does not allow

us to affirm that there is an association with the incidence of this carcinoma. The results of investigations remain inconsistent and some have shown that tobacco has a substantial influence on the occurrence of cases, including fatal cases.²³

Alcohol drinks, while one of the parts of the diet, have often been proven as a threat factor for colorectal and breast cancers, but without sufficient evidence for prostate cancer.²⁴

Most countries around the world since 1990 have widely applied rectal touch and prostate antigen specific antigen (PSA) dosage to prostate cancer screening. Rectal touch is used to analyze the size, shape and consistency of the prostate in understanding the presence of nodules.² The PSA test verifies the presence of clinically important tumors, as well as other slow-growing tumors that might otherwise escape the diagnosis.²⁵ The positive test results in biopsy that can identify small cancers that will either evolve to malignancy or not.²⁶ Many tumors, clinically categorized as localized, are not in fact and receive ineffective therapeutic instructions. Other patients with neoplasia without clinical relevance are treated unnecessarily. This occurrence results from the current fixation in the prognostic classification for the indication of appropriate therapies. Doubt in defining the pre-treatment prognosis of localized prostate cancer is a problem, due to the high morbidity associated with frequently performed treatment alternatives.²⁷

When choosing a treatment for this type of cancer, the health professional should give importance to the age of the patients, the comorbidities, the admission to treatment, the stage and the degree of tumor. As for the histological data of the biopsy there is about 50% chance of the cancer spreading out of the prostate in 10 years, with damage to other organs, consequently affecting survival.²⁸

One of the biggest challenges regarding early detection has been the lack of knowledge about the natural history of this type of cancer. The damages generated due to the illness of the head of the family harm the quality of individual and family life, sometimes affecting the only source of income of the house, having the children to perform the tasks of family care, failing to carry their lives within the standard expected for age.¹⁶

The economic and social pattern is an important variable of influence for the detection of these tumors, due to the possible difficulties of access and accessibility to public services of secondary health care. However, other studies still need to be done to verify this hypothesis, through the survey of family and individual income of the study population.

The current strategies for the provision of public health services to the population, with primary care services functioning as a gateway to other levels of care, including secondary prevention through early diagnosis of non-communicable diseases and injuries that is excluding for a large part of users, who have access hampered by geographical distances (travel time, cost of transportation) and socio-organizational accessibility, compromised by the hours of operation of the services, which rarely privilege workers through the provision of differentiated shifts or extended hours.

The secondary data existing in the institution studied are of immense wealth and numerous other studies can still be conducted in order to better understand the characteristics of the population assisted in these services, as a way of identifying risk and protective factors that support public policies in the

health area in the state of Bahia, with the purpose of increasing early detection rates, efficiency and efficacy in treatments and lower death rates caused by breast cancer in Brazil.

Public health policies should be supported by scientific evidence based on objective information. The use of health information from existing secondary data is fundamental, as they prove how much it is necessary to invest in changes in factors associated with cancer in order to reduce the inequities present. One of the ways to contribute to the discussion on the subject is to give visibility to mortality data, describing the impact on the male population. Therefore, it is necessary on the part of managers a decision to converge efforts in the prevention and control of cancers, given the magnitude and complexity of its determinants. Therefore, it is essential to seek the most up-to-date and continuous knowledge and information about the behavior of prostate cancer for health professionals and society in general, improving the understanding of this reality.

The contributions of this study to health materialize in the opportunity of scientific publicization of substantial findings for the knowledge of men's neoplasia, as well as the therapeutic modalities of treatment, associated factors, situations of health risk and vulnerability to the development of cancers among the male public. Moreover, they serve in a singular and relevant way to guide health actions for men at regional and national level.

Conclusion

In view of the above, it can be concluded that the results obtained in this study corroborate the data of high and possibly increasing prevalence in several Brazilian municipalities, and indicate the need for interventions for the implementation of prevention services, early detection and adequate control of prostate cancer and its risk factors in this northeastern population studied. It is important to emphasize that this prevalence was much higher in patients who were older (over 60 years of age).

The other risk factors analyzed (smoking and alcohol consumption) have a great influence on the development of the pathology under study, however, in this study there was no statistically significant association for these variables, and it is not possible to analyze them conclusively, due to the insufficient data in the medical records surveyed. While in relation to the histology variable, most of the patients analyzed were already in a picture considered medium risk, with the possibility of this cancer moving to the high risk, thus prolonging its treatment and reinforcing the importance of a previous diagnosis to mitigate the possibilities of a possible metastasis.

We also conclude that a closer look is needed on this one, which is a major cause of male mortality worldwide and lacks studies that contribute to the formulation of public and health policies aimed at reducing risks and vulnerabilities to this population group. Therefore, effective health promoting actions aimed at men's health are necessary in order to reduce the associated risks of unfavorable outcomes and their social impact.

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Comorbidities and risk factors identified in people who died from Severe Acute Respiratory Syndrome caused by Covid-19

Comorbidades e fatores de risco identificados em pessoas que vieram a óbito por Síndrome Respiratória Aguda Grave por Covid-19

Comorbilidades y factores de riesgo identificados en personas que fallecieron por síndrome respiratorio agudo severo por Covid-19

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REVISA

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RESUMO

Objetivo: Analisar a frequência de registros de casos de comorbidades e fatores de riscos relacionados aos óbitos de Síndrome Respiratória Aguda Grave (SRAG) por Covid-19 até a Semana Epidemiológica (SE) 40, no recorte geográfico formado pelo "Brasil", no recorte histórico formado pelo ano de "2021". **Método:** Estudo exploratório, descritivo e de abordagem quantitativa. Os dados foram adquiridos junto ao Sistema de Informação da Vigilância Epidemiológica da Gripe (SIVEP-Gripe) do Ministério da Saúde (MS). **Resultados:** Foi identificado o universo de 386.094 registros, com média e desvio-padrão de (35.099,5±49.151,4). Dentre as comorbidades e fatores de riscos identificados, as cardiopatias contabilizaram a maior preponderância com 39,2% (n=151.358) e a Síndrome de Down (SD) a menor com 0,4% (n=1.384). **Conclusão:** Foi possível identificar a relação existente entre as várias comorbidades e fatores de risco identificados, no que se refere a SRAG por COVID-19 no recorte geográfico e histórico analisados.

Descritores: Comorbidade; Fatores de Risco; Síndrome Respiratória Aguda Grave; COVID-19; Brasil.

ABSTRACT

Objective: To analyze the frequency of records of cases of comorbidities and risk factors related to deaths from Severe Acute Respiratory Syndrome (SRAG) by Covid-19 until the Epidemiological Week (SE) 40, in the geographic cut formed by "Brazil", in the clipping history formed by the year "2021". **Method:** Exploratory, descriptive and quantitative approach study. Data were acquired from the Influenza Epidemiological Surveillance Information System (SIVEP-Influenza) of the Ministry of Health (MS). **Results:** The universe of 386,094 records was identified, with a mean and standard deviation of (35099.5±49151.4). Among the comorbidities and risk factors identified, heart disease accounted for the greatest preponderance with 39.2% (n=151,358) and Down Syndrome (DS) the smallest with 0.4% (n=1,384). **Conclusion:** It was possible to identify the existing relationship between the various comorbidities and risk factors identified, with regard to SRAG by COVID-19 in the geographic and historical context analyzed.

Descriptors: Comorbidity; Risk factors; Severe Acute Respiratory Syndrome; COVID-19; Brazil.

RESUMEN

Objetivo: Analizar la frecuencia de registros de casos de comorbilidades y factores de riesgo relacionados con muertes por Síndrome Respiratorio Agudo Severo (SRAG) por Covid-19 hasta la Semana Epidemiológica (SE) 40, en el corte geográfico formado por "Brasil", en el historial de recortes formado por el año "2021". **Método:** Estudio exploratorio, descriptivo y de abordaje cuantitativo. Los datos se obtuvieron del Sistema de Información de Vigilancia Epidemiológica de Influenza (SIVEP-Influenza) del Ministerio de Salud (MS). **Resultados:** Se identificó el universo de 386,094 registros, con una media y desviación estándar de (35099.5±49151.4). Entre las comorbilidades y factores de riesgo identificados, la cardiopatía representó la mayor preponderancia con el 39,2% (n=151.358) y el Síndrome de Down (SD) el menor con el 0,4% (n=1.384). **Conclusión:** Se pudo identificar la relación existente entre las distintas comorbilidades y factores de riesgo identificados, respecto al SRAG por COVID-19 en el contexto geográfico e histórico analizado.

Descritores: Comorbilidad; Factores de riesgo; Síndrome respiratorio agudo severo; COVID-19; Brasil.

ORIGINAL

Introduction

The term epidemic is etymologically natural from the greek “ἐπιδημία”, of the adjective “ἐπιδήμιος”, meaning what is in the people, composed of “ἐπί”, that is, which lies over or above, beyond “δῆμος” which means people, constituting as a collective phenomenon of a disease, which is quickly transmitted, directly or indirectly, reaching a high number of people present or belonging to a geographical territory, which may become extinct after a period of time.¹⁻² The word pandemic, on the other hand, originated from the greek “πανδημιος”, is formed by the neutral prefix “pan” and the expression “demos” means “of all the people”, was first used by the greek philosopher Platão (348/347 a.C.), in his work entitled "Of the laws".¹⁻³

Platão used in his writings the term pandemic in the generic sense, referring to any event that occurred, capable of reaching an entire population, and it is also important to mention that one of his main students, the philosopher Aristoteles (384/322 a.C.) also used this term.² Historically, they can be cited as examples of complex epidemic events that came to decimate populations and entire cities, the Plague of Egypt (430 a.C.), the Antonine Plague (165–180 d.C.), the Plague of Cyprian (250–271 d.C.), Justinian's Plague (541–544 d.C.) and the Black Plague (1346–1352 d.C.).⁴⁻¹⁴

As species of pandemics that triggered alarming levels of transmissibility and mortality in numerous international nations, we can mention Cholera (1817), Spanish flu (1918–1920), Swine flu caused by the H1N1 virus (2009) and currently Covid-19.¹⁵⁻²⁵ In 1966, coronaviruses were first described by Tyrell and Bynoe, who cultivated the aforementioned species of virus, from patients who had common colds.²⁶⁻²⁷

In its morphology, the coronaviruses are constituted as microorganisms of great size and their RNA is constituted by having its single strand, being able to infect humans and also a great variety of non-human animals.²⁶⁻²⁷ Covid-19 can be understood as an expression, formed by the junction of the acronym "CO" understood as corona, "VI" which means virus and also the letter "D" related to the disease in question and, in this sense, the term corona comes from Latin and has as a meaning "crown", because the virus is in the form of circles, being visualized in the form of drops by means of electron microscopy, as a crown.²⁸⁻²⁹

Covid-19 virus classified as zoonotic, of the order *Nidovirales* on account of your RNA and family *Coronaviridae*, had its distribution in humans, other mammals, birds and, while hosts were identified in human animals and bats.³⁰⁻³² In the year 2019, in December, an outbreak of pneumonia (PNM) was identified in the city of *Wuhan*, province of *Hubei* in the People's Republic of China, rapidly spreading to approximately twenty-four (24) other nations, believed to have been caused by a new strain of coronavirus.³²⁻³³

As presented by Coronavirus Resource Center of Johns Hopkins University, were identified worldwide on 10/21/2021 at 18:00 hours, the universe of 242,403,265 registered cases of Covid-19, which generated 4,927,975 deaths and also 6,732,461,811 doses of applied vaccines.³⁴ Thus, the ten (10) international nations are presented, with the highest frequencies of numbers of registered cases of Covid-19, number of deaths and doses of vaccines applied³⁵:

Table 1 – Frequency of registered cases, deaths and doses of vaccines applied in relation to Covid-19 in the ten (10) nations with their respective highest preponderance^{*,**,***}

Nations	Registered Cases	Deaths	Applied Doses
U.S	45.301.092	733.218	409.314.310
England	8.681.795	139.562	95.824.552
Turkey	7.772.574	68.472	114.807.774
Rússia	8.005.376	223.331	99.965.267
Índia	34.143.236	453.042	1.009.945.663
Brazil	21.697.341	604.679	261.002.038
Ukraine	2.851.173	67.061	15.386.831
Romania	1.519.532	43.487	11.485.084
Iran	5.833.525	124.763	74.113.680
Phelippines	2.740.111	41.237	53.838.248
Other nations	242.403.265	4.927.975	6.732.461.811

Source: Johns Hopkins University Coronavirus Resource Center, 2021.

* Data extracted on 10/22/2021, at 12:00 pm

** Data may vary as updates to this database are daily.

*** The authors of this research are faithful to the database consulted.

In Brazil, according to the Ministry of Health (MH), the most identified qualities of coronavirus to date are the “alpha coronavirus HCoV-NL63”, the “alpha coronavirus HCoV-229E”, the “beta coronavirus HCoV-HKU1”, the “beta coronavirus HCoV-OC43”, the “SARS-CoV”, which is the cause of severe acute respiratory syndrome (SARS), the “MERS-CoV”, which is the cause of Middle East respiratory syndrome (MERS) and the SARSCoV-2.³⁶ As defended by the scientific literature, there are several comorbidities with regard to Severe Acute Respiratory Syndrome (SARS) by Covid-19, such as diabetes mellitus (DM), cardiovascular diseases, chronic kidney disease (CKD) and chronic lung diseases.^{15,36,37}

In this sense, the objective of the present study was to analyze the frequency of records of cases of comorbidities and risk factors related to deaths from Severe Acute Respiratory Syndrome (SARS) by Covid-19, in the geographical area formed by "Brazil", in the historical cut formed by the year of "2021".

Method

This is an exploratory, descriptive study with a quantitative approach, which acquired data for its construction from the Information System for the Epidemiological Surveillance of Influenza (SIVEP-Influenza) of the MS. For organizational purposes, the data acquired are related to Epidemiological Week number 40 (SE 40), extracted in the first half of October of the year 2021.

SIVEP-Gripe/MS has been in operation since 2000, aiming to develop the efficient monitoring of the influenza virus in Brazil, proceeding from a sentinel-type surveillance network with regard to the flu syndrome (SG).³⁸ With the identification of the pandemic generated by the Influenza Virus A(H1N1) pdm09 in 2009, it was necessary to carry out the implementation process of the Severe Acute Respiratory Syndrome (SRAG) surveillance and, in this process, the MH has been strengthening the surveillance of different types of respiratory viruses.³⁸

Currently, the official system for recording SARS cases and deaths is the Influenza Epidemiological Surveillance Information System (SIVEP-Gripe).³⁸ In

this research, the data from SIVEP-Gripe/MS are updated on 10/11/2021 at 12:00 pm, and they are subject to constant revisions. Electronic bibliographic surveys in digital databases were also developed, making it possible to acquire articles from scientific journals, official documents, and technical documents and positions and professional associations.

After acquiring the necessary subsidies for the construction of this study, they were organized using for this activity the software Microsoft Excel 2016®, belonging to the package Microsoft Office 2016®, for Windows®. Descriptive statistical analysis was implemented with percentage calculations (%), mean (\bar{x}) and standard deviation (σ) and, the results were presented using four (04) explanatory tables and one (01) table. The authors declare no conflicts of interest.

Results

In the process of organizing and analyzing the data, it was possible to identify the universe of 386,094 records of comorbidities and risk factors related to deaths from SRAG and Covid-19 in Brazil in the year 2021 to SE 40, in addition to the mean and standard deviation of (35,099.5±49,151.4). It was also possible to verify that heart diseases were the most prevalent comorbidities among those analyzed, accounting for 39.2% (n=151,358) records and Down Syndrome (DS) added the lowest preponderance with 0.4% (n=1,384), as shown in Table 2.

Table 2 – Frequency of comorbidities and risk factors related to SARS deaths by Covid-19, Brazil, 2021 to SE 40 (n=386.094):*, **, ***

Comorbidities and risk factors	f	%
Heart Disease	151.358	39,2
Diabetes	107.644	27,9
Obesity	44.951	11,6
Neurological Disease	18.598	4,8
Kidney Disease	18.360	4,8
Lung Disease	16.786	4,3
Immunosuppression	11.418	3
Asthma	8.267	2,1
Liver Disease	4.369	1,1
Hematologic Disease	2.959	0,8
Down's Syndrome	1.384	0,4
Total	386.094	100

Source: SIVEP-Gripe/MS, 2021.

* Data extracted on 10/22/2021, at 12:00 pm

** Data may vary as updates to this database are daily.

*** The authors of this research are faithful to the database consulted.

In Table 3, it was possible to identify the universe of 114,950 records of people under the age of sixty (60) years, who had comorbidities and risk factors related to deaths from SARS by Covid-19, in addition to mean and standard deviation (10450±13275.3). In this sense, heart diseases registered the greatest preponderance among those analyzed, totaling 32.3% (n=37,176) and DS the smallest with 0.8% (n=936) records of SARS by Covid-19 in people under the age of 60 years in Brazil in 2021.

Table 3 – Frequency of comorbidities and risk factors related to deaths of people under the age of 60 years, from SRAG by Covid-19, Brazil, 2021 to SE 40 (n=114.950):*, **, ***

Comorbidities and risk factors	f	%
Heart Disease	37.176	32,3
Diabetes	28.437	24,7
Obesity	26.248	22,8
Neurological Disease	5.026	4,4
Kidney Disease	4.690	4,1
Lung Disease	3.555	3,1
Immunosuppression	3.411	3
Asthma	2.708	2,4
Liver Disease	1.785	1,6
Hematologic Disease	978	0,9
Down's Syndrome	936	0,8
Total	114.950	100

Source: SIVEP-Gripe/MS, 2021.

* Data extracted on 10/22/2021, at 12:00 pm

** Data may vary as updates to this database are daily.

*** The authors of this research are faithful to the database consulted

In Table 4, it was possible to identify the universe of 271,144 registered cases of people aged over sixty (60) years, who had comorbidities and risk factors related to deaths from SARS by Covid-19, in addition to mean and standard deviation (24,649.5±36,962.7). Thus, heart diseases registered the highest preponderance with 42.1% (n=114,182) and DS the lowest with 0,2% (n=448).

Table 4 – Frequency of comorbidities and risk factors related to deaths of people aged over 60 years, from SRAG by Covid-19, Brazil, 2021 to SE 40 (n=271.144):*, **, ***

Comorbidities and risk factors	f	%
Heart Disease	114.182	42,1
Diabetes	79.207	29,2
Obesity	18.703	6,9
Neurological Disease	15.187	5,6
Kidney Disease	14.078	5,2
Lung Disease	13.334	4,9
Immunosuppression	6.728	2,5
Asthma	4.712	1,7
Liver Disease	2.584	1
Hematologic Disease	1.981	0,7
Down's Syndrome	448	0,2
Total	271.144	100

Source: SIVEP-Gripe/MS, 2021.

* Data extracted on 10/22/2021, at 12:00 pm

** Data may vary as updates to this database are daily.

*** The authors of this research are faithful to the database consulted

Discussion

With regard to the issue of people aged sixty (60) years old or older registering a greater preponderance with comorbidities and risk factors for SRAG by Covid-19, a correlation was identified with the scientific literature, when it is argued that this pandemic presents its greatest impacts on the population formed by the elderly.^{39,40} This condition of greatest impact and fragility identified in elderly people due to Covid-19, is identified mainly among its most clinically vulnerable subgroups, such as those with dementia syndromes, chronic diseases and residents of long-stay institutions for the elderly (ILPI).^{39,40,41}

For some researchers, the highest mortality rate in the elderly by Covid-19 is found among those who are 80 years old or more, with a mortality rate of approximately 14.8% of those infected and 8% of those aged between 70 and 79 years.⁴² For the Brazilian Society of Geriatrics and Gerontology (SBGG), another issue that hinders greater understanding regarding the aforementioned frailty, transmissibility and mortality of the elderly by Covid-19, is related to their underrepresentation in clinical studies, and also in immunization/vaccination tests for other illnesses, for example, for influenza type H1N1.³⁹

Regarding cardiac comorbidities related to Covid-19, a correlation with the scientific literature was also identified when it is argued that cardiovascular diseases induced by the generated effects are myocarditis, increased inflammatory cytokines, rupture of atheromas, microvascular disease, or infarction, and stress cardiomyopathy.⁴³ As for other researchers, in a study that surveyed 138 patients, 16.7% had arrhythmia and 7.2% had acute cardiac injury, among the identified cardiac complications.⁴⁴

The complexity and magnitude verified with regard to cardiac comorbidities and Covid-19 are such that there are several positions presented by the Brazilian Society of Cardiology (BSC) for better processing of this issue, such as guidelines for resuscitation cardiopulmonary assessment of patients diagnosed or suspected of this disease, on the use of antiplatelet agents and anticoagulants in patients infected with the new coronavirus, and also for cardiovascular rehabilitation on medical performance in their areas during the pandemic.^{45,46,47}

Other positions presented by the BSC were the protocol for reconnecting cardiology services with patients during the Covid-19 pandemic, the one indicated for pregnancy in women with heart disease, the one related to pre-participation cardiology evaluation after the pandemic in the guidelines for returning to practice of physical exercises and sports, as well as the indications and reintroduction of safe cardiovascular imaging methods.^{48,49,50,51} Regarding DM, as a comorbidity and risk factor with regard to SARS by Covid-19, correction was found with what is exposed in the scientific literature, when the increase in severity is defended, for example, predisposing infected people to hyperglycemia and, the interaction with other risk factors, can modulate the emergence of inflammatory and immunological responses with death effect.⁵²

As advocated by some researchers, the greater preponderance of available scientific evidence did not develop a distinction in relation to the different types of DM, with a greater preponderance of DM2 being verified, due to its high prevalence, when compared to the other types.⁵² In an important study developed , using transgenic mice as a model for analysis, it was possible to express the DPP-IV receptor with pulmonary alveolar cells, thus allowing to identify the worsening of the severity of DM in relation to Covid-19, also realizing an association between the greater loss of weight and greater pulmonary inflammatory process, in addition to macrophage infiltrate similar to those clinically identified.^{53,54}

In other studies, advanced age, DM and other comorbidities are reported as significant predictors of morbidity and mortality in relation to Covid-19,^{54,55} In the same way as the expansion of the coagulation activity, the chronic inflammation process, the involvement together the immune response and the potential damage to the pancreatic gland due to SARS-CoV-2 may be directly related to the different underlying mechanisms of association between DM and Covid-19.^{54,55}

Regarding obesity as a comorbidity and a risk factor related to deaths from SRAG/Covid-19, it is in common agreement with what is exposed in the scientific literature, when it is argued that it constitutes a chronic, multifactorial, underreported disease , with changes related to the continuous inflammatory process, reduced capacity to develop an immune response to infectious and viral processes.^{56,57} In this analytical context, obesity as a comorbidity of Covid-19 results in a greater risk of triggering thromboembolic phenomena, as it has a direct relationship with other diseases such as arterial hypertension (AH), DM among many others, weakening the development of care and assistance to patients who are in serious conditions.^{56,57,58}

Thus, the possibility of the emergence of respiratory difficulties and, by extension, pulmonary diseases, difficulty in acquiring venous access, transport and limitation in performing computed tomography (CT) and procedures such as orotracheal intubation (OTI), can also be mentioned, facilitating the prognosis of death.^{56,57,58} According to the Brazilian Association for the Study of Obesity and Metabolic Syndrome (ABESO) and the Brazilian Society of Endocrinology and Metabolism (SBEM), the problem of obesity increases the various risks of outcomes negatives related to Covid-19, as from the body mass index (BMI) of 30 kg/m², that is, grade 1, and this risk increases even more when compared to people who have their BMI \geq 35 kg/m², that is, grade 2 and, in those with BMI \geq 40 kg/m² by extension, grade 3.^{57,58,59}

Regarding kidney diseases as comorbidities and risk factors for death from **SRAG**/Covid-19, a correlation was identified with what is exposed in the scientific literature, when it is argued that there is the emergence of renal impairment in patients who are under treatment in a hospital environment, due to an infectious process caused by SARS-CoV-2.^{60,61} In this way, it is also possible to carry out a direct association due to the increase in the frequency of mortality and even a worse degree of evolution of the clinical type, doubling the concerns of those with chronic kidney disease (CKD).^{60,61,62,63}

According to the latest data generated in July 2018, approximately 133.5 thousand Brazilians have diagnoses as chronic kidney patients, and of these 92% are undergoing dialysis treatments and, in this sense, this population is classified as while high risk for complications resulting from Covid-19.^{63,64} According to the Brazilian Society of Nephrology (SBN), the risk of being infected is increased by comorbidities related to kidney disease, added to the need to acquire treatment in environments classified as collective, for the development of interpersonal contact while traveling between home and clinics for dialysis procedures and their care.⁶⁵

In an important research, which had a universe of 37,852 people who were on hemodialysis, it was possible to verify that there were 1,291 cases of infection by Covid-19 and of these, 357 deaths were registered, and the registered incidence rate was 341/ 10,000 people, the mortality rate was 94.3/10,000 and the lethality 27.2%.⁶⁶ In relation to immunosuppressive conditions and diseases, while comorbidities and risk factors related to Covid-19, a correlation was identified in what is presented in the scientific literature, when it is defended that people who are carriers of SIDA/AIDS are more vulnerable to the pandemic disease today.^{67,68}

Studies carried out in England and also in South Africa, it was possible to verify that, in people living with HIV, the possibility of dying as a result of Covid-19 and its complications is double (2x), when compared to the general population.⁶⁷ As for other authors, patients who have one or more types of cancer (CA) tend to have a greater risk of contracting or worsening Covid-19, in addition to having a worse prognosis than those without.^{68,69} The issue of immunosuppression, as comorbidities and risk factors related to deaths from **SRAG**/Covid-19, is so broad that numerous diseases, in addition to SIDA/AIDS and various types of CAs are cited as examples of chronic diseases and situations of immunosuppression, such as chronic respiratory disease (CKD), severe asthma in use of systemic corticosteroids, chronic obstructive pulmonary disease (COPD), bronchiectasis, cystic fibrosis (CF) among many others.⁷⁰ As a way to

better understand nt of such a complex issue, a table of diseases listed by the Federal Senate (SF) was adapted, which presents other chronic diseases and situations related to immunodepression:

Table 1 – Examples of chronic illnesses and immunosuppression situations:

* Chronic Respiratory Disease (CRD)	* Nephrotic syndrome (SN)
* Severe asthma in use of systemic corticosteroids	* Dialysis patient
* Chronic obstructive pulmonary disease (COPD)	* Chronic liver disease (DHC)
* Bronchiectasis	* chronic hepatitis
* Cystic Fibrosis (CF)	* Cirrhosis
* Hereditary and degenerative diseases of the nervous or muscular system	* Interstitial lung diseases
* Bronchopulmonary Dysplasia (DBP)	* Diabetes mellitus (DM)
* Type I and type II diabetes mellitus under medication	* Pulmonary hypertension
* Chronic heart disease	* Immunosuppression
* Congenital or acquired immunodeficiency	* Congenital heart disease
* Cardiac Insufficiency (CI)	* Systemic heart disease
* Immunosuppression by diseases or medications	* Chronic kidney disease (CKD)
* Kidney disease in stages 3, 4 and 5	* Transplanted

Source:

Adapted from the Federal Senate (SF), 2021.

* Available in: [<https://www12.senado.leg.br/institucional/covid/area-de-saude/doencas-chronicas-e-situacoes-de-imunodepressao>].

Regarding asthma as a comorbidity and a risk factor related to Covid-19, it was found that, despite the recognized Centers for Disease Control and Prevention (CDC) in the United States of America (USA), they list this respiratory disease as a risk factor , Chinese studies indicate that asthma and respiratory allergy were not identified as significant risk factors for this pandemic disease in analyzed case series.^{71,72} The issue of asthma not being identified as a significant risk factor related to Covid -19, it is possibly related to its reduced expression, with regard to angiotensin converting enzyme (ACE) receptors in atopic asthma.^{72,73}

For other researchers, the issue of susceptibility and also the risk related to severe Covid-19 among patients diagnosed with asthma may be different depending on some situations, such as age, the complexity of the disease, their endotype and its phenotype, in addition to the type of treatment chosen for its implementation.⁷⁴ Therefore, it is argued that the relationship between asthma and Covid-19 is not yet well understood, requiring further studies and research to be carried out to a better elucidation of this question.^{72,73,74}

With regard to neurological diseases as comorbidities and risk factors related to deaths from SRAG/Covid-19, a correlation was identified with what is exposed in the scientific literature, when it is argued that currently, there is a high quantity of publications which has strongly defended the involvement of the Central Nervous System (CNS) with the issue of Covid-19, however, there are still numerous questions regarding its pathophysiology to be answered.^{75,76} In this sense, they can be cited as pathophysiological conditions related to

neurological impairments and risk factors, the indirect consequences with regard to biochemical and multiorgan dysfunction, and also, in its medium and long-term impact, due to the neuroinvasive properties of the virus.^{75,76}

For some researchers, SARS-CoV has a high homology when compared to SARS-CoV-2, which is demonstrably classified as a neurotropic, as they use surface-related proteins, aiming to bind with the angiotensin-2 converting enzyme receptor (ECA2).^{75,76,77} Thus, the location of that receptor, possibly, determines the cellular tropism process of the virus structure, with the central nervous system (CNS), that is, with the astrocytes, neurons, microglia and oligodendrocytes.^{75,76,77}

As identified in the scientific literature, the signs of neurological symptoms observed in patients with SARS-CoV-2 are ageusia, anosmia and headache.^{75,76,77,78} Other neurological manifestations, epileptic seizures, acute cerebrovascular disease, encephalopathy, CNS infections and neuromuscular manifestations were also identified in the consulted research.^{75,76,77,78}

With regard to pneumopathies as comorbidities and risk factors related to deaths from SRAG/Covid-19, a scientific correlation was identified when it is argued that SARS-CoV-2 is a virus that has a high potential to cause pulmonary thromboembolism, in addition to acute respiratory distress syndrome (ARDS), respiratory and systemic symptoms classified as mild, as well as severe cases with sepsis, and multiple organ dysfunction.^{79,80} For some researchers, the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) are strains related to diseases classified as potentially fatal, being correlated to etiological agents of severe acute respiratory syndrome (SRAG) in 2002 and 2012.^{29,80,81}

When genetically analyzed, the genome belonging to SARS-CoV-2 is able to encode four (04) main structural proteins, namely the E protein (envelope), the M protein (membrane), the N protein (nucleocapsid), and the S protein (spike).^{80,81} In this sense, it is verified that the S protein has the possibility of binding to the ACE2, which constitutes itself as the receptor for the entry of the virus into the cell and, after these phenomena, it occurs the phenomenon known as tropism type II alveolar epithelial cytological structures, which represent pulmonary-type surfactant-secreting and, possibly, resident alveolar macrophages that will express this receptor.^{80,81,82,83}

With regard to liver diseases, as comorbidities and risk factors related to deaths from SRAG/Covid-19, a correlation was identified with what is exposed in the scientific literature, when the need for care, treatment and immunization of these patients, with chronic liver disease (CHD) and liver cirrhosis, as a risk group related to one or more pathologies and who need immunization in Phase 2 of the Vaccination Plan in Portugal.⁸⁴ Among the known liver diseases, they can cirrhosis, non-alcoholic fatty liver disease (NAFLD), hepatitis A, hepatitis B, hepatitis C, hereditary hemochromatosis type 1 and alcoholic hepatitis.^{84,85,86}

Even with the existence of a clinical diagnosis of liver cirrhosis, the onset of liver failure is not assumed at that exact moment, being possible the presence of an increased risk of death, in cases related to infection by Covid-19, with a mortality rate of approximately 30%.^{85,86,87} According to American Association for the Study Liver Diseases - AASLD, people with advanced age, with the presence of comorbidities such as, for example, cirrhosis, heart disease, CA,

obesity, immunodeficiencies and solid organ transplants, are at greater risk for the development of death due to Covid-19.⁸⁸

On the other hand, because people diagnosed with cirrhosis, liver transplants and other immunosuppressed patients were not included in initial research, there is a lack of evidence related to the effects generated, due to the immunization and vaccination process.^{88,89} With regard to hematological diseases, as comorbidity and risk factors related to deaths from SRAG/Covid-19, a correlation was identified with what is exposed in the scientific literature, when it is argued that this pandemic disease causes laboratory changes, clinical and hematological, such as thrombocytopenia and lymphopenia.^{90,91}

For some researchers, a person infected with Covid-19 ends up developing hypercoagulability due to microthrombosis, in addition to the occlusion process of small pulmonary vessels, expanding the existing state of decreased oxygenation (hypoxia) and, subsequently, an association occurs with regard to intravascular forms of coagulation having dissemination and also systemic reverberation.^{92,93} In this sense, it is essential to pay attention to the complications related to the issue of delay in the hospitalization process and bed restriction, in patients diagnosed with Covid-19 and with hematological complications, allowing the emergence of risks of deep vein thrombosis (TVP).^{92,93}

In another study, a significant risk of death was found in patients diagnosed with Covid-19 admitted to the intensive care unit (ICU), in those who presented high values of total leukocytes and neutrophils, in addition to reduced hemoglobin values.⁹⁴ With regard to Down Syndrome (DS), as a comorbidity and risk factor related to Covid-19, a correlation was identified, when it is argued that it is verified in these people, prevalence between 40 to 50% of cardiovascular diseases, in addition to a greater possibility of developing overweight, obesity, high blood pressure and also, because they have changes in the airways, there is greater ease of infection by the Covid-19 virus, increasing complications with the patient.^{95,96,97,98}

For some researchers, people diagnosed with DS are at greater risk of contracting this pandemic disease, due to their immune dysfunction, greater propensity to need hospitalization and even greater possibility of mortality due to Covid-19.^{98,99,100} The complexity and The emergence of the issue is such that the Brazilian Society of Pediatrics (SBP) has come forward, developing a warning note regarding the issue of care for children with DS, suggesting actions for attention in cases of suspected Covid-19.¹⁰¹

In the document cited by the SBP, an important warning is also identified regarding the pediatric age group, being the one affected in a reduced way by the impacts of Covid-19, children with DS are vulnerable and much more susceptible to infectious processes of the respiratory type, due to including known comorbidities such as heart disease, DM, immunodeficiencies, obesity, added to the predictive factors of increased severity.¹⁰²

Conclusion

Through the present study, it was possible to verify the considerable quantity of comorbidities and risk factors related to deaths from SARS by Covid-19, in the analyzed geographic and historical context. Among the comorbidities

and risk factors identified, heart disease, DM, obesity, kidney disease, immunosuppression, asthma, neurological diseases, lung diseases, liver diseases, hematological diseases and DS can be mentioned.

Although the present study has limitations, it managed to meet the proposed objectives, allowing for a better elucidation of the relationship between comorbidities and risk factors, with regard to recorded deaths from SRAG by Covid-19 in Brazil in the time period in question. On the other hand, there are still several doubts regarding Covid-19 and its comorbidities and risk factors, which need to be encouraged to carry out more robust studies and research, aiming to better elucidate this very complex and violent disease .

Another doubt that exists in this complex international and national public health problem is in relation to the direct and indirect impacts generated, on victims and victims of the Covid-19 pandemic, constituting an issue that will reverberate with future generations. In this sense, it is up to all people, society and international nations, to redouble their efforts in order not to allow the progress and expansion of Covid-19, as well as its variants, in order to mitigate its devastating effects.

Measures such as the use of masks, hand hygiene, social distance and the immunization process are powerful strategies for combating and controlling Covid-19 and its variants. Other strategies for health education, health communication, prevention, combat and control of Covid-19 and its different variants need to be redoubled, aiming to encourage better awareness of all members of societies and mitigating its devastating and incalculable effects on contemporaneity and in future generations.

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Pediatric oncological care in front of the COVID-19: actions by the multiprofessional team

O cuidado oncológico pediátrico frente à pandemia da COVID-19: ações da equipe multiprofissional

Atención pediátrica oncológica frente a la pandemia COVID-19: acciones del equipo multiprofesional

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RESUMO

Objetivo: relatar intervenções organizacionais vivenciadas pela equipe multiprofissional para a adaptação e manutenção de um serviço de oncologia pediátrica frente à pandemia do novo coronavírus. **Método:** Trata-se de um estudo descritivo exploratório junto a profissionais de saúde da oncologia pediátrica em parceria com enfermeiras do Serviço de Controle de Infecção Hospitalar e Educação Permanente em Saúde. **Resultados:** As adaptações e intervenções realizadas foram fundamentadas no Planejamento Comunicativo e organizado em três pilares: espaço físico; fluxo de atendimento; acolhimento e capacitação da equipe. **Conclusão:** As ações organizacionais para a adaptação e manutenção do serviço de oncologia pediátrica frente à pandemia, possibilitaram que os fluxos de atendimentos fossem mantidos com respeito às normas socio-sanitárias e com direcionamento, que proporcionou assistência de qualidade às crianças e adolescentes.

Descritores: Infecções por coronavírus; Neoplasias; Criança; Adolescente; Cuidado da criança.

ABSTRACT

Objective: to report organizational interventions experienced by the multidisciplinary team for the adaptation and maintenance of a pediatric oncology service in the face of the new coronavirus pandemic. **Method:** This is an exploratory and descriptive study conducted with pediatric oncology health professionals in partnership with nurses from the Hospital Infection Control and Continuing Health Education Service. **Results:** The adaptations and interventions performed were based on Communicative Planning and organized into three pillars: physical space; service flow; reception and training of the team. **Conclusion:** The organizational actions for the adaptation and maintenance of the pediatric oncology service in the face of the pandemic allowed the flow of care to be maintained with respect to social and health standards and with guidance that provided quality care to children and adolescents.

Descriptors: Coronavirus infections; Neoplasms; Kid; Adolescent; Child Care.

RESUMEN

Objetivo: informar de las intervenciones organizativas vividas por el equipo multidisciplinar para la adecuación y mantenimiento de un servicio de oncología pediátrica ante la nueva pandemia de coronavirus. **Método:** Este es un estudio descriptivo y exploratorio con los profesionales de la salud en oncología pediátrica en asociación con enfermeras del Servicio de Control de Infecciones Hospitalarias y Educación Continua en Salud. **Resultados:** Las adaptaciones e intervenciones realizadas se basaron en la Planificación Comunicativa y se organizaron en tres pilares: espacio físico; flujo de servicio; recepción y formación del equipo. **Conclusión:** Las acciones organizativas para la adecuación y mantenimiento del servicio de oncología pediátrica ante la pandemia permitieron mantener el flujo de atención con respecto a los estándares socio-sanitarios y con orientaciones que brinden una atención de calidad a la niñez y adolescencia.

Descriptores: Infecciones por coronavirus; Neoplasias; Niño; Adolescente; Cuidado de los niños.

Introduction

On January 30, 2020, the World Health Organization declared the public health emergency of international importance (ESPII) caused by SARS-CoV-2.¹ The pandemic by COVID-19 generated the need for organizational changes in health facilities in order to ensure the maintenance and continuity of care.² In this scenario, we highlight pediatric oncology services that abruptly needed to adapt their routines so as not to interrupt the care of children and adolescents diagnosed with cancer.

The pandemic has unseemingly created the need to guarantee and maintain cancer treatment for children and adolescents through the adaptation of diagnostic and treatment protocols during the pandemic, as well as the establishment of strategies for the containment of COVID-19.³ Based on this assumption, it is understood that the interruption of cancer treatment, added to the possible complications of COVID-19, can negatively contribute to the chances of cure of children and morbidity and mortality rates.

As in Brazil, which estimates 8,460 new cases of neoplasms in children and adolescents (triennium 2020-2022)⁴, studies show that pediatric oncology teams in countries such as Italy, China and the United Kingdom also experienced challenges for organizing services whose main focus was on maintaining cancer treatment, avoiding delays and implementing strategies for covid-19 protection.⁵ There are reports of services that delayed or discontinued cancer health care due to COVID-19, through a reduction in the number of surgeries and rescheduling outpatient consultations, for example. These data reveal the various weaknesses and challenges of health systems, due to the little knowledge about the new virus and the urgent need to implement new operating guidelines.⁶

Pediatric oncology services had to reorganize themselves to ensure the right of access to health for children and adolescents. The establishment of new flows for outpatient care, maintenance of consultations and administration of chemotherapy, reorganization of wards for hospitalization, division of intensive care beds, personnel dimensioning, logistics of material and drug inputs are among the challenges faced by services.⁷

In this sense, the objective was to report organizational interventions experienced by the multidisciplinary team for the adaptation and maintenance of a pediatric oncology service in the face of the COVID-19 pandemic.

Method

This is a descriptive exploratory study referring to the organizational adaptations experienced by the multidisciplinary team, using Communicative Planning, a model that is based on the theory of communicative action in a horizontal way through the analysis of scenarios, definition of goals and actions that will allow to achieve tactical and operational results in a dialogical, cooperative and constructive way.⁸ The activities took place in a pediatric oncology service of a philanthropic hospital in Salvador, Bahia, characterized as a High Complexity Care Unit (UNACON). The initial interventions took place from March to December 2020, resulting from the experience of the multidisciplinary team of the pediatric oncology service, in partnership with the

Hospital Infection Control and Continuing Health Education Service that are part of the co-workers' team at COVID-19. The present report respected the ethical aspects approved by the ethics and research committee of the Federal University of Bahia – Maternidade Climério de Oliveira, in 22 of 2020, under opinion no. 4,043,353.

Results and Discussion

The adaptations made in the pediatric oncology service were based on protocols guided by the National Health Surveillance Agency⁹ and were elaborated in three pillars: physical space; service flows; welcoming and training of the team (Chart 1).

Table 1 - Strategies implemented for the maintenance of the pediatric oncology service. Salvador, Bahia, Brazil. 2020.

Physical Space
Installation of sinks at the entrance of the hospital
Space for dispensing Personal Protective Equipment (PPE) located at reception
Blocking of one of the access routes to the pediatric oncology outpatient clinic, remaining active only the entrance through immediate nursing screening
Installation of electronic doorman in the oncology ward
In the pediatric oncology outpatient clinic: Respiratory isolation or Contact isolation for referral of children suspected to COVID-19
Floor signs for in/out flows and social distancing
Availability of gel alcohol dispensers through the corridors and in each room
Adequacy of spaces for Respiratory isolation and Contact isolation
Prohibition of the use of the toy library and readjustment of space to attend symptomatic cases
Suspension of follow-up of school teachers, as well as trainees and volunteers
Service flows
The Covid-19 Coping Committee was established
Telephone confirmation of the scheduling of your appointment, chemotherapy or procedure
Implementation of the pilot project of telemedicine care
Suspension of visits and restriction for only one companion per child
Temporary suspension of long chemotherapy and medical consultations of children in the maintenance phase
Immediate screening of nursing to identify children suspected or confirmed for COVID-19
Monitoring the use of the mask by children and companions and hand hygiene
Request for the exchange of companions, if the latter presented suspicious signs and symptoms for COVID-19
Implementation of video calls between children, family members and health team
Body temperature measurement in children, companions and multidisciplinary team
Welcoming and team training
Preparation of E-book: "Taking care of those who care"
Psychological reception to employees

"Invisible Heroes" campaign thanking you for your commitment and recognizing the importance of each professional category
Creation and discussion of the Handbook of Good Practices in Coping with COVID-19
Training of professionals involved in immediate screening
Training of employees in the face of new processes and protocols - Contingency Plan
Training of professionals for the management of COVID-19
Training on the importance of proper paramentation and deparamentation
Training of the Hand Hygiene Protocol
Implementation of clinical sessions and remote training
Production and availability of video classes with contingency plan guidelines (e.g.: paramentation and disparamentation/ Hand hygiene protocol)

It is important to implement hospital committees for planning and management of actions during the pandemic¹⁰ because they allow organization and planning in emergency situations. Actions such as reorganization of physical space, implementation of teleservice, screening and monitoring of suspected cases have been effective actions described in some studies, such as India for example.¹¹ The reception, valorization and listening to professionals was an assertive measure, evidenced, also in studies conducted in China, which provided psychological support to frontline health professionals, as well as children from COVID-19 and their families.⁷ Such actions can contribute to minimize risks and damages not only to the health professional, but also to the child, reflecting in the improvement of the quality of care provided.¹²

Following the perspective of the implemented actions, it is worth noting that during this period, all structural dynamics and care in the pediatric oncology service was reorganized, prioritizing care for new cases, children in the initial phase of treatment (induction) and those who were undergoing chemotherapy. The care of children in maintenance and out of therapy was initially rescheduled by teleservice, followed later in the face-to-face modality. As in other countries, it was challenging to perform such measures, but it is highlighted that it was the main point for success in the implementation of relevant changes and maintenance of safe and quality care to children oncologic.⁵

It is important to highlight that from this report, the study will serve as a support in the establishment and/or updating of care flows and protocols, focusing on the adaptation and maintenance of the pediatric oncology service in pandemic time based on a dialogical and communicative process among the team.

Conclusion

During the confrontation of COVID-19, overcoming difficulties requires special attention from health professionals involved in the services. Organizational strategies aimed at adapting and maintaining care in the pediatric oncology service were effective because they allowed the maintenance of care and treatment of children. It is noteworthy that currently the SARS-CoV-2 has presented variants and this may arise in need of new strategies to cope with transmission according to changes in viral behavior.

The organizational actions for the adaptation and maintenance of the pediatric oncology service during the COVID-19 pandemic revealed that organizational strategies were planned and developed with favorable results, especially considering that the conduct of care practices guaranteed care.

It is important to highlight that from this report, the study will serve as a support in the establishment and/or updating of care flows and protocols, focusing on the adaptation and maintenance of the pediatric oncology service in pandemic time based on a dialogical and communicative process among the team. Regarding limitations, it presented as a challenge the lack of consolidation of clinical evidence that supported the team in the implementation of actions, since it is a new event in need of constant changes of regulatory bodies, obeying international guidelines.

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