COINSAU

CONGRESSO INTERNACIONAL DE ATUALIZAÇÕES EM SAÚDE
INTERNATIONAL CONGRESS ON HEALTH UPDATES
CONGRESO INTERNACIONAL DE ACTUALIZACIONES EN SALUD

Proceedings of the III International Congress of Health Updates

COINSAU



Organizers:

Victor Hugo da Silva,
Emanuelle Souza Aguiar Pimenta,
Maria Geovanna Vital de Alcântara,
Felipe Ávela da Silva Leiti,
Quézia de Miranda Silva,
Weverlly Victória Moreira dos Santos.

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SCIENTIFIC PROCEEDINGS

3rd International Congress on Health Updates

III COINSAU

English translation · May 27–29, 2026 · Online

Organizers

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Emanuelle Souza Aguiar Pimenta
Maria Geovanna Vital de Alcântara
Felipe Ávela da Silva Leiti
Quézia de Miranda Silva
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Editora HUMANIZE®

2026

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Published by Editora Humanize, Salvador, Bahia, Brazil.

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PUBLICATION DETAILS

This English translation accompanies the original Portuguese proceedings. The ISBN and DOI below identify the Portuguese edition.

Original Portuguese edition

Anais do III Congresso Internacional de Atualizações em Saúde
Salvador, Bahia: Editora Humanize, 2026.

ISBN: 978-65-5255-237-2
DOI: 10.5281/zenodo.24092717

Extent of this translation: 51 pages.

PREFACE

The 3rd International Congress on Health Updates (COINSAU) was held online from May 27 to 29, 2026. The program included lectures, a short course and presentations of scientific works on topics ranging from clinical updates to accessible communication and interprofessional care.

The standard and extended abstracts in this volume address diagnosis and prevention, health technologies, nursing care and the social determinants of care. This range brings together research and practice and broadens discussion of how knowledge can be applied in health services.

In publishing these proceedings, Editora Humanize records the scientific work presented at the congress and helps share it with students, researchers and health professionals.

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SCIENTIFIC PROGRAM

May 27, 2026

10:00	Mpox: clinical challenges in management and recognition in a global context Lecture
11:00	Brazilian Sign Language (Libras) and health: accessible communication as a determinant of care quality Lecture
14:00	Cell therapy and stem cells: integrating immunotherapy and regenerative medicine Lecture
15:30	Considerations for resistance training in the care of older adults Lecture
17:00	Mental health: challenges and opportunities in interprofessional practice Short course

May 28, 2026

16:00	Updated protocols for treating odontogenic abscesses Lecture

May 29, 2026

—	Presentation of scientific works Scientific session

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HONORABLE MENTIONS

Poster

STANDARD ABSTRACTS

1st place	**NURSING CARE IN THE MANAGEMENT OF MALIGNANT BREAST WOUNDS: DRESSINGS, CARE AND NEW THERAPEUTIC APPROACHES** Carlos Gabriel Lemos da Conceição
2nd place	**THE ALYNE NETWORK AS A STRATEGY TO STRENGTHEN MATERNAL AND CHILD CARE IN BRAZIL** Victor Hugo da Silva
3rd place	**ROLE-PLAY AS A TEACHING STRATEGY IN NURSING FUNDAMENTALS PRACTICAL CLASSES: AN EXPERIENCE REPORT** Carlos Gabriel Lemos da Conceição

EXTENDED ABSTRACTS

1st place	**INTRODUCING MOLECULAR HPV DNA TESTING IN BRAZIL'S UNIFIED HEALTH SYSTEM: INNOVATION, ACCESS AND CERVICAL CANCER PREVENTION** Victor Hugo da Silva
2nd place	**EFFECTS OF ENDOMETRIOSIS ON QUALITY OF LIFE IN WOMEN OF REPRODUCTIVE AGE: AN INTEGRATIVE REVIEW** Isadora Freitas de Azevedo
3rd place	**COMPARATIVE ANALYSIS OF GESTATIONAL TOXOPLASMOSIS CASES IN THE NORTHEAST AND SOUTHEAST REGIONS OF BRAZIL IN 2025** Wesley Kauã da Silva Lima

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HONORABLE MENTIONS

Oral presentation

STANDARD ABSTRACTS

1st place	**HEMOPHILIA-RELATED COMPLICATIONS AND THEIR CLINICAL IMPACT: A SYSTEMATIC REVIEW** Weverlly Victória Moreira dos Santos
2nd place	**NURSING CARE FOR WOMEN WITH RARE DISEASES** Letícia Oliveira dos Santos
3rd place	**THE IMPORTANCE OF HAND HYGIENE IN PREVENTING HEALTHCARE-ASSOCIATED INFECTIONS: A REVIEW** Guilia Rivele Souza Fagundes

EXTENDED ABSTRACTS

1st place	**COMPLICATIONS IN WOMEN WITH EXTENSIVE BURNS: AN INTEGRATIVE REVIEW** Samya Vanessa Morais de Mendonça Lopes Soares
2nd place	**STRATEGIES FOR WELCOMING AND SUPPORTING WOMEN EXPERIENCING VIOLENCE IN HEALTH SERVICES: AN INTEGRATIVE REVIEW** Samya Vanessa Morais de Mendonça Lopes Soares

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ARTIFICIAL INTELLIGENCE AND EARLY ORAL CANCER DIAGNOSIS: THE POTENTIAL OF CHATGPT IN DENTISTRY

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INTRODUCTION: Oral cancer is a major public health problem and is often diagnosed at an advanced stage, worsening prognosis and reducing survival. Artificial intelligence (AI) is being incorporated into dentistry to support early diagnosis. ChatGPT, an AI language model, can help organize clinical information, interpret data and support decision-making. This study examined its potential to assist in early oral cancer diagnosis. **OBJECTIVE:** To assess ChatGPT as a tool for supporting early oral cancer diagnosis in dentistry, highlighting its contributions and limitations in clinical practice. **METHODS:** This integrative literature review searched the National Library of Medicine database (PubMed) and Latin American and Caribbean Health Sciences Literature (LILACS) through the Virtual Health Library (BVS). The DeCS/MeSH descriptors “Artificial Intelligence,” “Generative Artificial Intelligence” and “Mouth Neoplasms” were alphabetized and combined as (“Artificial Intelligence” OR “Generative Artificial Intelligence”) AND “Mouth Neoplasms.” Full-text studies published from 2022 to 2026 in English, Portuguese or Spanish were included. Duplicates, case reports, opinion articles, dissertations and theses were excluded. **RESULTS AND DISCUSSION:** The search identified 422 studies. After eligibility screening, 257 articles remained: 131 from PubMed (n=131; 50.9%) and 126 from BVS/LILACS (n=126; 49.1%). After detailed review, 8 articles were selected, 6 from PubMed (n=6; 75%) and 2 from BVS/LILACS (n=2; 25%). AI tools may support early oral cancer diagnosis by analyzing clinical data and aiding professional decisions. Although ChatGPT does not directly diagnose disease, it can help interpret information, generate clinical hypotheses and support education. Limitations include lack of direct clinical validation, potentially inaccurate information and the need for professional supervision. Its potential as a clinical and educational aid in dentistry is promising, particularly alongside AI technologies for image analysis and oral lesion screening. **FINAL CONSIDERATIONS:** AI tools such as ChatGPT can assist decision-making and clinical education in dentistry. They should be used cautiously in early oral cancer diagnosis because they cannot replace clinical examination or professional assessment. Scientific validation and integration with conventional diagnostic methods are still needed.

KEYWORDS: Artificial intelligence; Generative artificial intelligence; Head and neck neoplasms.

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COMPARISON OF THE EXPECTORANT ACTIVITY OF EUCALYPTUS GLOBULUS AND EUCALYPTUS CITRIODORA ESSENTIAL OILS: A NARRATIVE REVIEW

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INTRODUCTION: Eucalyptus is native to Australia and has adapted well to Brazil's varied climates and soils. It has long been valued in traditional medicine. Among its many species, *Eucalyptus globulus* and *Eucalyptus citriodora* (now *Corymbia citriodora*) have antioxidant, anti-inflammatory and antimicrobial properties relevant to treating respiratory diseases ranging from the common cold to severe pneumonia. Since the SARS-CoV-2 pandemic, health authorities have intensified respiratory care and surveillance and sought alternative treatment approaches, including natural products alongside medication. **OBJECTIVE:** To compare the expectorant effects of *Eucalyptus globulus* and *Eucalyptus citriodora* essential oils using data in the literature. **METHODS:** The search ran from May 5 to May 13, 2026, without language restrictions, using "Expectorant," "*Eucalyptus globulus*," "*Eucalyptus citriodora*" and "Respiratory disease." Databases included LILACS, PubMed, SciELO and the Virtual Health Library (BVS). Systematic reviews, in vitro and in vivo studies, and clinical trials published from 2020 to 2026 were included. Studies that did not address the objective were excluded. **RESULTS AND DISCUSSION:** An expectorant should hydrate secretions to make mucus easier to move, stimulate clearance through productive coughing and help respiratory epithelial cilia remove secretions. Eucalyptol (1,8-cineole), one of the substances that can facilitate mucus clearance, is present in eucalyptus leaf essential oil at a higher concentration (approximately 60–86%) in *E. globulus*. *E. citriodora* essential oil contains eucalyptol at low concentrations, with citronellal as its dominant component. Although citronellal has strong anti-inflammatory, antimicrobial and analgesic properties, evidence that it aids expectoration is limited. Clinical studies reported that eucalyptol reduced exacerbations of chronic obstructive pulmonary disease symptoms by up to 35%. A key expectorant effect of 1,8-cineole is to stimulate ciliary movement in the respiratory epithelium, facilitating mucus clearance. **FINAL CONSIDERATIONS:** Essential oils from both species can benefit health and assist in treating respiratory tract diseases, with different therapeutic properties depending on their composition. *Eucalyptus globulus* oil stands out as an expectorant because of its high 1,8-cineole concentration, making it the better option when the intended effects are lower mucus viscosity and improved clearance.

KEYWORDS: Expectorant; Phytotherapy; Essential oil; Respiratory disease.

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ENDOMETRIOSIS AND INFERTILITY: EFFECTS ON FERTILITY AND WOMEN'S REPRODUCTIVE HEALTH

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INTRODUCTION: Endometriosis is a chronic inflammatory gynecological disease characterized by endometrial-like tissue outside the uterine cavity. It affects women of reproductive age and is often associated with infertility. Beyond its physiological effects, the disease affects emotional, social, sexual and occupational life and substantially impairs quality of life. The guiding question was: How does endometriosis affect fertility and women's reproductive health? **OBJECTIVE:** To examine the effects of endometriosis on fertility and women's reproductive health. **METHODS:** An integrative review used the PICO framework: population (women with endometriosis), interest (effects on fertility and reproductive health), comparison (not applicable) and outcome (infertility and impaired quality of life). PubMed, Scientific Electronic Library Online (SciELO) and Google Scholar were searched using “Endometriosis” AND “Infertility” AND “Reproductive Health” AND “Quality of Life”; Google Scholar broadened the search. Full-length scientific articles in English from 2020 to 2026 that addressed the topic were included. Data were collected in May 2026. Duplicates, articles focused exclusively on surgery or diagnosis, studies outside the time frame and those that did not address the search terms or guiding question were excluded. **RESULTS AND DISCUSSION:** The search yielded 47 articles. After title and abstract screening, 42 were excluded as duplicates, irrelevant to the topic, or exclusively surgical, laboratory or diagnostic in focus. The remaining 5 articles were included. They showed that inflammatory, hormonal and anatomical changes caused by endometriosis interfere with fertility, hindering fertilization and reducing the likelihood of spontaneous pregnancy. Sexual, emotional and professional aspects of quality of life were particularly affected. Dyspareunia and chronic pelvic pain impaired sexual life; infertility was associated with psychological distress, anxiety and depression. Occupational difficulties were also reported, especially during assisted reproduction treatment. Nursing was important to comprehensive care, including welcoming patients, providing health education and systematizing care. **FINAL CONSIDERATIONS:** Endometriosis substantially affects fertility, mental health and quality of life in women of reproductive age. Early diagnosis, multidisciplinary assistance and stronger comprehensive women's health care are needed.

KEYWORDS: Endometriosis; Infertility; Quality of life; Reproductive health.

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EPIDEMIOLOGICAL PROFILE OF CONGENITAL SYPHILIS IN BRAZIL'S SOUTHEAST REGION IN 2024

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INTRODUCTION: Syphilis in pregnancy is a sexually transmitted infection caused by the bacterium *Treponema pallidum*, which can be passed from a pregnant woman to her baby during pregnancy. Transmission may lead to complications such as premature birth, low birth weight and neonatal death. Cases have increased in recent years in the Southeast Region, posing a major public health challenge. Prenatal care, early diagnosis and appropriate treatment are therefore important for prevention and control. **OBJECTIVE:** To analyze reported cases of congenital syphilis in Brazil's Southeast Region in 2024. **METHODS:** This quantitative, descriptive study analyzed data from the Notifiable Diseases Information System (SINAN). Information was collected on congenital syphilis cases in the Southeast Region in 2024. Variables included age group, receipt of prenatal care, case outcome and the federal unit reporting the case. **RESULTS AND DISCUSSION:** The data showed 5,252 confirmed cases of congenital syphilis in the Southeast Region during the study period. São Paulo reported the most cases, at 2,176 (41.4%), followed by Rio de Janeiro with 1,526 (29.1%), Minas Gerais with 1,130 (21.5%) and Espírito Santo with 420 (8.0%). Most pregnant women reported receiving prenatal care. However, the high case numbers indicate possible gaps in appropriate diagnosis and treatment. There were 52 deaths. São Paulo recorded the most, at 25. These findings underscore the need to strengthen prevention and early diagnosis and improve the quality of prenatal care to reduce vertical transmission. **FINAL CONSIDERATIONS:** Despite progress, congenital syphilis remains a major public health problem in the Southeast Region. Strengthening prenatal care, early diagnosis and appropriate treatment is necessary to reduce vertical transmission and its complications.

KEYWORDS: Congenital syphilis; Epidemiology; Public health.

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EPIDEMIOLOGICAL PROFILE OF MALIGNANT NEOPLASMS OF THE LIP, ORAL CAVITY AND PHARYNX IN NORTHEASTERN BRAZIL, 2019–2024

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INTRODUCTION: Malignant neoplasms of the lip, oral cavity and pharynx are a major public health problem owing to high morbidity and mortality and their impact on quality of life. Head and neck cancer has a high incidence in Brazil. Sociodemographic and socioeconomic factors and barriers to accessing services favor delayed diagnosis and reduce survival. The disease is multifactorial and is associated primarily with alcohol and tobacco use, especially in people over 40 years of age. Solar radiation and human papillomavirus (HPV) infection also contribute. Understanding hospitalizations for these cancers is essential to strengthen prevention, early diagnosis and care. **OBJECTIVE:** To describe the epidemiological profile of malignant neoplasms of the lip, oral cavity and pharynx in Northeastern Brazil from 2019 to 2024. **METHODS:** This descriptive, retrospective, documentary and observational epidemiological study analyzed secondary data from the Department of Information and Informatics of Brazil's Unified Health System (DATASUS). Data were obtained via the TabNet platform from the “Health Information” and “Epidemiology and Morbidity” tabs. Hospitalizations for these cancers were classified in Chapter II of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). Filters included the Northeast Region, sex, type of care, hospital admissions and in-hospital deaths. DATASUS records hospitalization events; the same person may be counted more than once. Data were organized in Microsoft Excel 2019, presented in charts and tables and analyzed descriptively. The publicly and freely accessible database did not require ethics committee review under Resolution No. 510/2016. **RESULTS AND DISCUSSION:** From 2019 to 2024, 29,484 hospitalizations for these cancers were recorded in the Northeast. The largest numbers were in 2022 (n=5,723; 19.4%) and 2023 (n=5,771; 19.5%). There were 3,406 associated in-hospital deaths. Deaths increased over time, with a 1.6% rise in 2023 compared with 2019. Men accounted for 68.1% (n=20,089) of hospitalizations and women for 31.8% (n=9,395). This is consistent with literature linking higher incidence in men to greater exposure to risk factors, particularly tobacco and alcohol. Barriers to specialist care and late diagnosis aggravate the clinical condition and increase morbidity and mortality. Hospitalization records cannot identify unique patients or establish causality. **FINAL CONSIDERATIONS:** These cancers were associated with frequent hospitalizations and substantial in-hospital mortality in the Northeast, predominantly in males. The findings underscore prevention, risk factor control and greater access to early diagnosis and specialized services. More detailed studies of the factors associated with morbidity and mortality can inform more effective public policies and care strategies.

KEYWORDS: Epidemiology; Head and neck neoplasms; Lip neoplasms; Health profile.

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EPIDEMIOLOGICAL STUDY OF VISCERAL LEISHMANIASIS IN NORTHERN BRAZIL IN 2025

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INTRODUCTION: Visceral leishmaniasis is a parasitic infectious disease transmitted by the bite of a phlebotomine sand fly, *Lutzomyia longipalpis*, infected with the protozoan *Leishmania chagasi*. It is listed by the World Health Organization (WHO) as a neglected tropical disease (NTD). Cases have been reported in all five regions of Brazil. **OBJECTIVE:** To assess visceral leishmaniasis cases reported in Northern Brazil during 2025. **METHODS:** This quantitative study used data from the Notifiable Diseases Information System (SINAN) on visceral leishmaniasis cases in the North during the study period. Variables included area of residence, sex, age group, education, human immunodeficiency virus (HIV) coinfection and disease outcome. **RESULTS AND DISCUSSION:** Across the North, 141 cases were reported. Pará accounted for the largest share, with 70 confirmed cases (49.6%). Cases were more frequent in males (66.0%). The most affected age groups were 20 to 39 and 40 to 59 years, each with 39 cases (27.7%). For education, “not applicable,” which indicates that a level of education could not be assigned, was the most frequent category (23.4%). The “unknown/blank” and “completed secondary education” categories each had 28 confirmed cases (19.9%). HIV–leishmaniasis coinfection represented 15.6% of cases. Outcomes were classified as unknown/blank (30.5%), cure (51.8%), treatment abandonment (1.4%), death from visceral leishmaniasis (7.8%), death from another cause (1.4%) and transfer (7.1%). **FINAL CONSIDERATIONS:** Visceral leishmaniasis is a major public health problem. The results reveal epidemiological patterns in the most affected areas and in settings of social vulnerability. Effective public prevention and control policies, such as sanitation and health education, are needed to reduce exposure and improve living conditions.

KEYWORDS: Parasitology; Protozoan infections; Public health.

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HEMOPHILIA-RELATED COMPLICATIONS AND THEIR CLINICAL IMPACT: A SYSTEMATIC REVIEW

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INTRODUCTION: Hemophilia is an X-linked hereditary bleeding disorder caused by deficiency of coagulation factor VIII (hemophilia A) or IX (hemophilia B). Treatment advances over recent decades have substantially increased life expectancy, but complications remain a major clinical challenge with effects on morbidity, mortality and quality of life. The guiding question was: "What evidence is available on the major clinical complications associated with hemophilia and their effects on patients' health?" **OBJECTIVE:** To analyze the scientific evidence on the main clinical complications of hemophilia and their effects on patients' health. **METHODS:** This systematic review searched the Medical Literature Analysis and Retrieval System Online (MEDLINE), Excerpta Medica Database (Embase), Scientific Electronic Library Online (SciELO) and Latin American and Caribbean Health Sciences Literature (LILACS) from 2021 to 2026. The MeSH terms "Hemophilia," "Complications," "Arthropathy," "Intracranial Hemorrhage," "Inhibitors, Mortality," "Quality of Life," "Cardiovascular" and "Osteoporosis" were combined using AND/OR. Systematic reviews, meta-analyses, scoping reviews, cohort studies and cross-sectional studies were included, with methodological quality assessed using GRADE and the Newcastle–Ottawa Scale. Duplicates, editorials, isolated case reports and abstracts were excluded. **RESULTS AND DISCUSSION:** The databases returned 220 records. After methodological quality assessment, 75 articles remained, and the 30 most relevant were selected. Of these, 23 were from PubMed/MEDLINE (76.67%), 5 from Embase (16.67%), 1 from LILACS (3.33%) and 1 from SciELO (3.33%). Intracranial hemorrhage is the most severe complication, with high mortality and risk factors such as severe disease, inhibitors and lack of prophylaxis[1]. Bleeding and thrombotic events such as acute myocardial infarction, stroke and venous thromboembolism are more frequent, particularly as the population ages and comorbidities increase[2]. Hemophilic arthropathy is the most common disabling musculoskeletal complication. Repeated hemarthroses lead to chronic synovitis, cartilage destruction and joint degeneration, underscoring the importance of early prophylaxis and multidisciplinary follow-up[3]. Despite reductions in mortality, people with hemophilia still face a greater risk of death than the general population; major causes include hemorrhage, HIV and HCV infections, and neoplasms[4]. Inhibitors, recurrent bleeding and frequent hospitalizations persist despite prophylaxis, highlighting ongoing challenges and the need for stronger health policies for this population[5]. **FINAL CONSIDERATIONS:** Hemophilia complications persist despite prophylaxis. Early preventive strategies, stronger multidisciplinary centers and public policies that guarantee equitable access to treatment and ongoing follow-up are needed.

KEYWORDS: Hemophilic arthropathy; Clinical complications; Hemophilia; Intracranial hemorrhage; Clinical impact.

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IMPACT OF ACUTE VIRAL BRONCHIOLITIS ON FAMILY QUALITY OF LIFE AND HEALTH SYSTEM STRAIN

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INTRODUCTION: Acute viral bronchiolitis is a leading cause of hospitalization in children under two years of age, particularly during seasonal peaks. It is usually caused by respiratory syncytial virus (RSV) and inflames the lower airways, making it difficult for infants to breathe. Beyond clinical consequences for children, it disrupts family routines and affects the health system through increased demand for medical care and hospitalization. **OBJECTIVE:** To analyze the impact of acute viral bronchiolitis on family quality of life and on the burden placed on pediatric health services. **METHODS:** This literature review searched SciELO and the CAPES Journals Portal using the Health Sciences Descriptors (DeCS) “acute viral bronchiolitis,” “respiratory syncytial virus,” “family quality of life,” “child hospitalization” and “health system strain.” Full-length scientific articles published in Portuguese and English within the previous 5 years were included if they addressed clinical, social, emotional and economic effects. Duplicates, incomplete studies and articles not directly related to the topic were excluded. The selected data were organized and discussed in light of the research objectives. **RESULTS AND DISCUSSION:** The reviewed studies showed a marked impact on family quality of life. Many parents experienced anxiety, fear and emotional exhaustion during their child's illness, especially when hospitalization was necessary. Taking time off work to accompany treatment created financial difficulties and disrupted household routines. Seasonal outbreaks increased demand for pediatric care, hospital bed occupancy and use of medical resources. During peaks, hospitals faced overcrowding and needed to expand care teams. Public costs for admissions, medication and respiratory support also rose. **FINAL CONSIDERATIONS:** Acute viral bronchiolitis is an important public health problem with clinical, social, emotional and economic effects. It directly affects families and places a burden on the health system. Prevention, awareness campaigns, early diagnosis and stronger pediatric care are essential to reduce complications, admissions and the impact of the disease.

KEYWORDS: Bronchiolitis; Child health; Public health.

MICROBIAL RESISTANCE ASSOCIATED WITH INAPPROPRIATE ANTIBIOTIC USE: AN INTEGRATIVE REVIEW

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INTRODUCTION: Microbial resistance is a major public health problem in which microorganisms survive antimicrobials that were previously effective. Indiscriminate antibiotic use, self-medication and improper use favor the emergence of multidrug-resistant bacteria, complicating treatment and increasing the risk of clinical complications. A shortage of new antimicrobials compounds the problem, especially in hospitals. The guiding question was: Which factors are associated with increasing microbial resistance in health services? **OBJECTIVE:** To analyze the effects of microbial resistance associated with inappropriate antibiotic use and highlight the importance of control measures. **METHODS:** This integrative review used PICO: P (patients with bacterial infections), I (antibiotic use), C (appropriate versus inappropriate use) and O (development of microbial resistance). SciELO and PubMed were searched between April and May 2026 using “microbial resistance,” “antibiotics,” “bacterial infection” and “public health.” Relevant full-text articles in Portuguese, English or Spanish published within the previous five years were included. Duplicates, incomplete studies and those not answering the guiding question were excluded. **RESULTS AND DISCUSSION:** The search identified 42 articles; 3 studies met the criteria and formed the final sample. Inappropriate antibiotic use remains a key factor in rising bacterial resistance, especially in hospitals and intensive care units (ICUs). Heavy use of cephalosporins and carbapenems favors selection of multidrug-resistant bacteria and reduces available treatment options. Self-medication and inappropriate antimicrobial use for viral infections were also identified as factors that promote changes in microorganisms and increase resistance. A lack of new antimicrobials substantially limits treatment of resistant infections. Programs for appropriate antimicrobial use, epidemiological surveillance and enforcement against sales without a prescription showed positive results in reducing bacterial resistance. Health education for the public and professionals also raised awareness of correct antimicrobial use and helped prevent resistance. **CONCLUSION:** Increasing microbial resistance is directly related to indiscriminate and inappropriate antibiotic use, particularly in hospitals. Self-medication, inappropriate prescribing and overuse foster multidrug-resistant bacteria, undermine treatment effectiveness and create challenges for health services. Stronger public policies, epidemiological surveillance and education on appropriate antimicrobial use are needed to reduce the impact of resistance and improve treatment safety.

KEYWORDS: Microbial resistance; Antibiotics; Public health; Bacterial infection; Rational use.

NURSING CARE FOR WOMEN WITH RARE DISEASES

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INTRODUCTION: Rare diseases comprise different groups of conditions with a low incidence in the population. In women, their development may be associated with genetic, hormonal and immunological changes. Early diagnosis remains difficult, which can hinder appropriate management and compromise treatment. Nursing is essential to identifying affected patients and providing comprehensive care. The guiding question was: “What does the scientific literature from the last five years reveal about nursing care for women with rare diseases?” **OBJECTIVE:** To analyze scientific evidence from the past five years on nursing care for women with rare diseases. **METHODS:** A qualitative integrative literature review followed PRISMA recommendations. PubMed/Medical Literature Analysis and Retrieval System Online (MEDLINE), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Health Sciences Literature (LILACS) and the Excerpta Medica Database (EMBASE) were searched using the MeSH descriptors “Nursing Care,” “Rare Diseases,” “Women,” “Autoimmune Diseases,” “Quality of Life,” “Patient Experience” and “Care Coordination” in Portuguese, English and Spanish, combined with AND and OR. The time frame was 2021 to 2026. Scientific studies relevant to the topic were included. Non-indexed documents and publications lacking scientific rigor were excluded, as were letters to the editor, conference abstracts, dissertations, technical reports and non-indexed research. **RESULTS AND DISCUSSION:** The search identified 850 studies. After removing duplicates and applying the eligibility criteria, 30 articles formed the final sample. Underdiagnosis is linked to nonspecific symptoms often mistaken for more prevalent diseases. The studies found gaps in primary care professionals' training for early detection. Nurses play an important role in identifying the first signs and symptoms, promoting health, educating patients about early clinical manifestations and obtaining a family history during clinical assessment. Nursing care also helps patients feel welcomed and emotionally supported and strengthens treatment adherence, facilitating compassionate, comprehensive care. **FINAL CONSIDERATIONS:** Nursing care for women with rare diseases is essential for early identification, comprehensive care and emotional support. Underdiagnosis was the main challenge, stemming from nonspecific symptoms often mistaken for common diseases and compounded by inadequate professional training, particularly in primary care. Nurses are central to early recognition, family history taking, health education, welcoming care and adherence to treatment. Expanding training and strengthening public policies are urgently needed to ensure high-quality and equitable care for these women.

KEYWORDS: Nursing care; Early diagnosis; Women's health.

NURSING CARE IN THE MANAGEMENT OF MALIGNANT BREAST WOUNDS: DRESSINGS, CARE AND NEW THERAPEUTIC APPROACHES

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INTRODUCTION: Breast cancer remains a leading cause of morbidity and mortality among women in Brazil and worldwide and is a major public health concern. Malignant breast wounds occur mainly in advanced disease. They are complex lesions associated with tumor infiltration, exudate, foul odor, severe pain, necrosis and bleeding, which substantially impair patients' quality of life. Nurses play a central role in managing these wounds by assessing them continuously, selecting suitable dressings and providing compassionate care. The guiding question was: How does nursing care contribute to managing malignant breast wounds with modern dressings and health technologies? **OBJECTIVE:** To analyze the contributions of nursing care to the management of malignant breast wounds using modern dressings and therapeutic health technologies. **METHODS:** This integrative literature review used PICO: population (patients with malignant breast wounds), interest (nursing care using modern dressings and health technologies), comparison (conventional management, where applicable), and outcome (improved care and patient comfort). The Virtual Health Library (BVS), Latin American and Caribbean Health Sciences Literature (LILACS) and Scientific Electronic Library Online (SciELO) were searched using the descriptors “breast cancer,” “malignant wounds,” “dressings” and “nursing,” combined with the Boolean operator AND. Full-text scientific articles in Portuguese that addressed the topic and were published from 2021 to 2026 were included. Data were collected in May 2026. Duplicate studies, articles in other languages, studies outside the time frame and those that did not address the guiding question were excluded. **RESULTS AND DISCUSSION:** The search initially identified 52 studies. After applying the inclusion and exclusion criteria, 14 articles remained for full-text review, and 5 formed the final sample. Nursing care played an essential role in managing malignant breast wounds, especially in symptom control and patient comfort. The most frequently cited modern dressings included silver-containing hydrofiber, silver-containing activated charcoal, calcium alginate, polyurethane foam and hydrogel. Silver dressings showed important antimicrobial activity and helped reduce odor, whereas activated charcoal effectively controlled unpleasant odors. Calcium alginate was particularly useful for managing exudate and minor bleeding. Hydrogel promoted wound hydration and autolytic debridement. In addition to technical care, the studies emphasized compassionate care, emotional support and guidance for patients and families during treatment. Health technologies and appropriate use of modern dressings reduced discomfort, helped prevent complications and improved the quality of life of patients with malignant breast wounds. **FINAL CONSIDERATIONS:** Nursing care is essential in managing malignant breast wounds, particularly when it incorporates modern dressings and therapeutic health technologies. The evidence reviewed showed that these interventions help manage symptoms, improve comfort and promote quality of life. Ongoing education for nursing professionals and stronger provision of compassionate care are needed for women with breast cancer.

KEYWORDS: Breast cancer; Malignant wounds; Dressings; Nursing; Health technologies.

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PHYTOCHEMICAL COMPOSITION OF ANACARDIUM OCCIDENTALE L.: A NARRATIVE REVIEW

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INTRODUCTION: *Anacardium occidentale* L., commonly known as the cashew tree, is native to Brazil, widely distributed in tropical regions and belongs to the Anacardiaceae family. It is economically important, particularly for its nut and accessory fruit. The tree is rich in secondary metabolites and active compounds relevant to pharmacology. Its anti-inflammatory, analgesic and schistosomicidal properties make it well known in traditional medicine. **OBJECTIVES:** To identify the principal secondary metabolites and chemical compounds of *Anacardium occidentale* L. through a narrative review of the literature. **METHODS:** The search was conducted from May 2 to May 14, 2026, without language restrictions, using keywords such as “Anacardium ocidentale,” “Chemical compounds” and “Metabolites.” Searches in PubMed, SciELO and Google Scholar focused on articles published from 2021 to 2026. Four publications were analyzed; studies unrelated to the objective were excluded. **RESULTS AND DISCUSSION:** The leaves contained abundant bioactive compounds, including γ-terpinene, securinine, 1,2,3-benzenetriol, dl-α-tocopherol and naphthalene, suggesting relevance to traditional medicine. The true fruit, known as the cashew nut, contained anacardic acids, methylcardols, quercetin, myricetin, (+)-catechin, (−)-epicatechin and proanthocyanidin tetramers, among others. Studies of ethanolic extracts from dried leaf powder detected alkaloids, phenols, saponins and flavonoids, highlighting the cashew tree's biological activity and value in traditional medicine. **CONCLUSION:** The chemical composition of *Anacardium occidentale* points to potential pharmaceutical applications and suggests therapeutic usefulness.

KEYWORDS: Anacardiaceae; Cashew tree; Major compounds; Pharmacology.

ROLE-PLAY AS A TEACHING STRATEGY IN NURSING FUNDAMENTALS PRACTICAL CLASSES: AN EXPERIENCE REPORT

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INTRODUCTION: Nursing education must develop technical and scientific skills and the ability to provide compassionate care. Active learning methods facilitate teaching and learning, encourage participation and integrate theory with practice. Role-play uses simulated clinical cases to expose students to situations resembling those in health services. It develops clinical reasoning, decision-making, communication and teamwork, and increases confidence in essential nursing procedures. Reporting such experiences can strengthen practical learning. **OBJECTIVE:** To report a teaching assistant's perspective on role-play as a teaching and learning strategy in a Nursing Fundamentals course. **METHODS:** This experience report drew on the teaching assistant's observations during practical classes in a skills laboratory. In role-play activities, students worked in groups of three to four on simulated clinical cases involving nursing procedures. These included indwelling and intermittent urinary catheterization in male and female patients, enteral and nasogastric tube insertion, oxygen therapy and tracheostomy care, including suctioning, cleaning and cannula replacement. Groups first presented the clinical case and discussed appropriate actions. They then performed the procedures in front of faculty, the teaching assistant and classmates, who evaluated technique and identified required care, strengths and areas for improvement. **RESULTS AND DISCUSSION:** The experience exposed students to situations resembling clinical practice, strengthening technical skills and clinical reasoning. Participation, communication, autonomy and teamwork increased. Oxygen therapy and tracheostomy exercises broadened understanding of respiratory care and how to maintain airway patency. Discussions after presentations helped identify and correct technical errors, answer questions and share knowledge. Role-play made learning more dynamic, participatory and relevant to professional practice, reinforcing the course content. **FINAL CONSIDERATIONS:** From the teaching assistant's perspective, role-play was a valuable teaching strategy in Nursing Fundamentals because it integrated theory and practice and encouraged active participation. It promoted safer performance of procedures, clinical reasoning, communication and teamwork, highlighting the value of active learning in nursing education.

KEYWORDS: Nursing; Teaching and learning; Active learning methods; Clinical simulation.

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ROTAVIRUS CASES REPORTED IN NORTHERN BRAZIL IN 2025

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INTRODUCTION: Rotavirus is a major viral cause of acute diarrheal illness worldwide, mainly in children under five years of age. It belongs to the Reoviridae family and has double-stranded RNA. Transmission can occur by the fecal–oral route and through airborne spread. Rotavirus remains a significant public health challenge in Brazil. **OBJECTIVE:** To analyze the epidemiological profile of rotavirus cases reported in Northern Brazil in 2025, considering clinical and epidemiological variations. **METHODS:** This descriptive quantitative study used secondary data from the Notifiable Diseases Information System (SINAN) on confirmed rotavirus cases in Northern Brazil in 2025. The variables included age group, vaccination history and clinical manifestations such as diarrhea, vomiting, fever and blood in stool. Simple descriptive statistics were used to calculate absolute and relative frequencies. **RESULTS AND DISCUSSION:** In 2025, Northern Brazil recorded 215 confirmed rotavirus cases, the highest number of reports in the country. Most occurred in children aged 1 to 4 years (173 cases; 80.5%), and 42 cases (19.5%) occurred in children under 1 year. Gastrointestinal symptoms predominated. Diarrhea was present in 207 cases (96.3%), underscoring its frequency in rotavirus infection. Vomiting was reported in 205 patients (95.3%) and fever in 156 cases (72.6%). Blood in stool was less common, occurring in 13 reports (6.0%). Only 76 children (35.3%) had received rotavirus vaccine, 131 (60.9%) had not, and 8 (3.80%) had unknown or missing vaccination status. This points to low vaccine coverage and highlights the need to strengthen prevention campaigns. **CONCLUSION:** Rotavirus remains an important public health challenge in Northern Brazil, especially among children aged 1 to 4 years. The high frequencies of diarrhea and vomiting show the impact of infection on child health. Low vaccine coverage among reported cases also highlights the need to intensify immunization campaigns and preventive measures to limit spread and lessen the impact on children under five.

KEYWORDS: Epidemiology; Prophylaxis; Public health.

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SELF-CARE AND ADAPTATION IN HEART TRANSPLANTATION: REFLECTIONS ON THE ROLE OF NURSING

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INTRODUCTION: Heart transplantation is a highly complex intervention for severe heart failure and requires specialized care at every stage. Nursing practice can draw on Dorothea Orem's Self-Care Theory and Sister Callista Roy's Adaptation Model to help patients turn their vulnerability into an effective adaptive response to their new health status. **OBJECTIVE:** To reflect on the role of nursing in the rehabilitation and treatment adherence of heart transplant recipients in light of these frameworks. **METHODS:** This theoretical, reflective narrative study reviewed literature on nursing care for heart transplant patients and interpreted the central concepts of the two theories. Perioperative care was categorized using Dorothea Orem's Nursing Systems and Sister Callista Roy's Adaptive Modes. **RESULTS AND DISCUSSION:** Nursing care in heart transplantation was central to restoring self-care agency and promoting holistic adaptation. From Orem's perspective, the preoperative, intraoperative and postoperative stages are periods of therapeutic dependence in which nursing acts as an essential compensatory system. Hemodynamic monitoring and administration of immunosuppressants are more than routine care: they help patients regain autonomy. Health education provides a foundation for the skills patients need to sustain survival and adjust to the graft. From Roy's perspective, transplantation is a focal stimulus that challenges the individual's integrity. Fluid and electrolyte management and infection prevention support physiological regulation, while emotional support helps patients integrate their new identity and process changes in their social and family roles. Success depends on nurses' ability to mediate these stimuli, transforming a high-risk situation into an ongoing process of adaptation and promoting harmony between the new heart and the person as a whole. **FINAL CONSIDERATIONS:** Care informed by Orem and Roy enables nurses to mediate between vulnerability and autonomy. By strengthening self-care agency and adaptive processes, nursing care helps prevent complications, integrate the new organ into the patient's identity and promote safe rehabilitation.

KEYWORDS: Nursing theories; Nursing care; Heart transplantation.

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THE ALYNE NETWORK AS A STRATEGY TO STRENGTHEN MATERNAL AND CHILD CARE IN BRAZIL

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ABSTRACT
INTRODUCTION: Maternal mortality is an important indicator of the quality of health care and of social inequality. Although most maternal deaths in Brazil are preventable, rates remain high, especially among Black women, revealing gaps in access to prenatal, childbirth and postpartum care. In 2024, the federal government established Rede Alyne (the Alyne Network), a program to strengthen maternal and child care and reduce maternal mortality in Brazil. The guiding question was: How does the Alyne Network help strengthen maternal and child care and reduce maternal mortality in Brazil? **OBJECTIVE:** To examine the contributions of the Alyne Network as a strategy for strengthening maternal and child care. **METHODS:** This integrative literature review used the PICo framework. P referred to pregnant and postpartum women in Brazil, I to strategies to strengthen maternal and child care and reduce maternal mortality, and Co to women's health care in the Brazilian public health system, with an emphasis on the Alyne Network. PubMed/MEDLINE, Scientific Electronic Library Online (SciELO) and Latin American and Caribbean Health Sciences Literature (LILACS) were searched in May 2026. The descriptors “Maternal Mortality,” “Maternal and Child Health,” “Prenatal Care,” “Rede Alyne” and “Women's Health” were combined with the Boolean operators AND and OR. Full-length scientific articles published from 2021 to 2026 in Portuguese, English or Spanish that addressed the topic were eligible. Studies were selected by screening titles, abstracts and full texts. Duplicate studies, editorials, case reports, conference proceedings and publications that did not address the guiding question were excluded. **RESULTS AND DISCUSSION:** The search identified 85 studies on the topic. After eligibility screening, 63 articles were excluded because they did not meet the research objectives. The full texts of 22 studies were read. Of these, 5 formed the final sample because they were most relevant and aligned with the purpose of the review. The studies found that Black women had higher maternal mortality rates than White women, reflecting institutional racism and inequities in obstetric care. Gaps in maternal and child care included late initiation of prenatal care, incomplete performance of recommended tests, difficulties providing welcoming care and uneven implementation of good obstetric practices in public maternity hospitals. Expanding access to health services alone was insufficient to ensure equity and reduce maternal mortality. The quality, comprehensiveness and person-centeredness of care also needed strengthening. Organizational strategies based on standardized clinical protocols, ongoing monitoring and stronger health care networks showed positive results in reducing maternal mortality and improving care indicators. The Alyne Network stands out as a strategy for strengthening maternal and child care in Brazil by proposing measures to improve care, expand access, reduce inequities and provide safer, more compassionate and comprehensive care throughout pregnancy and the postpartum period. **FINAL CONSIDERATIONS:** Maternal mortality in Brazil remains closely linked

to social and racial inequalities and gaps in health care, especially for Black women and women in vulnerable situations. The Alyne Network is an important strategy for strengthening maternal and child care through measures to improve care, reduce inequities and expand access to compassionate, comprehensive care.

KEYWORDS: Alyne Network; Maternal mortality; Maternal and child care; Prenatal care.

THE IMPORTANCE OF HAND HYGIENE IN PREVENTING HEALTHCARE-ASSOCIATED INFECTIONS: A REVIEW

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INTRODUCTION: Hand hygiene uses techniques to remove dirt and microorganisms from the skin, preventing contact transmission and cross-infection. It is simple, inexpensive and highly effective in infection prevention and control in health services. It is one of the most effective ways to prevent healthcare-associated infections (HAIs), which increase morbidity, mortality, length of stay and care costs. These infections may be acquired during care and appear during or after hospitalization if linked to the procedures performed. **OBJECTIVE:** To analyze the importance of hand hygiene in preventing healthcare-associated infections through an integrative literature review. **METHODS:** Studies on hand hygiene and HAI prevention were sought in SciELO, LILACS, PubMed and Google Scholar. The Health Sciences Descriptors “Hand hygiene,” “Hospital infection” and “Patient safety” were combined using AND. Full-text articles published in Portuguese and current manuals and guidelines on the topic were included. Theses, dissertations and incomplete articles were excluded. **RESULTS:** Although hand hygiene is easy to perform, widely recognized and important for infection prevention and control, lapses persist. They are commonly associated with heavy workloads, lack of suitable supplies and insufficient awareness among health care staff. Ongoing education is needed to reduce HAIs and promote safe care. **FINAL CONSIDERATIONS:** Hand hygiene substantially reduces healthcare-associated infections and care-related risks, improving the quality of care and patient safety.

KEYWORDS: Hand hygiene; Hospital infection; Patient safety.

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THE INFLUENCE OF SOCIAL MEDIA ON SELF-MEDICATION: A LITERATURE REVIEW

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INTRODUCTION: Self-medication is a major obstacle in the public health sphere due to the associated risks such as intoxications, adverse reactions, masking of diseases, and drug resistance, especially when used indiscriminately without a prescription. In this sense, social media has come to exert a strong influence on health-related behaviors in recent years, thus becoming a source of information for medical treatments and medications, enabling the rapid dissemination of content produced both by professionals and by people without technical qualifications, contributing to the circulation of information without scientific basis. Such a scenario can favor inadequate self-medication practices, especially among users who frequently use these social media platforms. **OBJECTIVE:** To analyze in the scientific literature the influence of social media on the practice of self-medication. **METHODOLOGY:** Literature review, conducted in the period of May 2026. The PICo strategy was applied: P - social media users; I - self-medication practice; Co - influence of social media. Guiding question: "How do social media influence the practice of self-medication?" The searches were conducted in the PubMed, Scopus, and ScienceDirect databases. DeCS descriptors used: ("Self Medication") AND ("Social Media") AND ("Health Education"). Research from 2022 to 2026, original studies, reviews, and articles with full text in Portuguese, English, and Spanish that addressed the influence of social media or the digital environment on the practice of self-medication were included. After applying the eligibility criteria, the studies were analyzed qualitatively, focusing on clinical applications, neurobehavioral mechanisms, and possible implications. Studies older than ten years, abstracts, and articles that did not meet the inclusion criteria or did not fit the theme of the present study were excluded. **RESULTS AND DISCUSSION:** The results show that the expansion of mobile internet use has reconfigured the behavior of seeking care, turning social media into primary vectors for inducing self-medication. It was found that the ease of access to these networks stimulates rapid self-diagnosis and informal consumption of substances purely for logistical convenience, generating in users a false perception of therapeutic safety. The confrontation of the data indicates that the digital ecosystem mimics clinical prescriptions thru experiential reports and lay recommendations, whose algorithms amplify content based on emotional engagement to the detriment of scientific grounding, propagating massive misinformation. This scenario fosters severe risks to public health, including acute intoxications, deleterious drug interactions, and the masking of underlying pathologies. It is therefore discussed that the digital autonomy of the patient, when devoid of adequate health literacy, acts in a harmful manner, weakening patient safety and imposing avoidable care costs on public health systems. **CONCLUSION:** It is concluded that social media exerts a substantial and unregulated influence on the practice of self-medication, solidifying itself as a contemporary challenge for global public health. The circulation of information without technical scrutiny acts as a behavioral risk determinant, encouraging the irrational use of drugs. It becomes imperative, therefore, to formulate structured interventions that promote digital health literacy among the population, combined with active governance by regulatory agencies and the inclusion of healthcare professionals in these virtual environments. Such measures are fundamental to neutralize the infodemic, mitigate epidemiological aggravations, and reorient information technologies as effective instruments for promoting well-being and therapeutic safety.

KEYWORDS: Self-medication; Misinformation; Health Education; Social Media.

THE ROLE OF NURSING IN PRENATAL CARE FOR PREGNANT WOMEN IN RIVERINE COMMUNITIES

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INTRODUCTION: Prenatal care consists of a set of actions aimed at promoting maternal and child health, and is essential for the prevention of complications and for the proper monitoring of pregnancy. However, access to this care remains a challenge for vulnerable populations, such as riverside communities, which are primarily located along riverbanks. In these regions, geographical barriers, socioeconomic limitations, and transportation difficulties hinder regular access to health services. Given this scenario, the scientific literature highlights the importance of nursing practice in expanding coverage and improving the quality of prenatal care, especially in hard-to-reach areas. Thus, analyzing existing publications is important for strengthening knowledge about the role of nursing in prenatal care for women living in riverside areas. **OBJECTIVE:** To understand what the scientific literature addresses regarding nursing care in prenatal care for riverside women. **METHODOLOGY:** This is an integrative literature review conducted in the Virtual Health Library (VHL), Scientific Electronic Library Online (SCIELO), and Elicit. The following health sciences descriptors (DeCS) were used: “Riverside”; “Primary care”; and “Prenatal,” combined using the Boolean operator “AND.” The inclusion criteria were defined as: full-text articles, available free of charge, published in the last ten years, in Portuguese and English, and addressing the proposed topic. Exclusion criteria included studies that did not meet the established time frame or were duplicates in the databases. After applying the criteria, relevant articles were identified, and at the end of the screening and abstract review process, 6 studies were selected to comprise the sample. **RESULTS AND DISCUSSION:** It was found that 63% of riverside pregnant women began prenatal care after the 12th week of gestation. Nursing interventions led to a 28% increase in adherence to prenatal visits through home visits, screening activities, and monitoring of maternal health conditions, contributing to the treatment of pathologies and the reduction of pregnancy-related risks. Thus, the importance of nursing care in strengthening prenatal care and increasing pregnant women’s adherence to prenatal follow-up is evident. Studies indicate that socioeconomic inequalities and difficulties in accessing healthcare in the Northern Region make providing prenatal care to riverine pregnant women a major challenge, requiring the implementation of strategies adapted to this reality. Furthermore, during the first weeks of pregnancy, there is a higher risk of pregnancy complications, reinforcing the need for essential examinations to assess maternal-fetal vitality and adequate fetal growth and development. In the analysis conducted, pregnant women reported greater confidence and peace of mind after receiving guidance from nurses, with educational interventions, humanized practices, accessible communication, and attentive listening highlighted as factors that promote greater autonomy and security during pregnancy. **FINAL CONSIDERATIONS:** It is concluded that nursing plays a leading role in the prenatal care of pregnant women living in riverside communities, contributing to the reduction of obstetric and neonatal risks. The main challenges highlighted include difficulties in accessing the area and a shortage of qualified professionals. Given this scenario, the need for investments in the education and training of professional s capable of carrying out interventions in riverine contexts is reinforced, with the aim of minimizing health inequalities among this population. Furthermore, it is suggested that new studies be conducted focusing on health education strategies for pregnant women living in riverine communities, in order to reduce adverse outcomes and strengthen the quality of prenatal care.

KEYWORDS: Women living along riverbanks; Primary care; Prenatal care.

BENEFITS OF TILAPIA SKIN FOR THE TREATMENT OF BURNS: LITERATURE REVIEW

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ABSTRACT

INTRODUCTION: Burns cause mortality and infection risk, while synthetic dressings present limitations. In this context, tilapia skin emerges as a biological alternative, reducing pain, treatment time, and costs. **OBJECTIVE:** To identify, analyze, and discuss evidence on the benefits of tilapia skin in burn treatment. **METHODOLOGY:** A systematic review was conducted in PubMed, BVS, and CAPES databases using descriptors and Boolean operators. Studies from the last 5 years available in full text were included. Animal studies and previous systematic reviews were excluded. **RESULTS AND DISCUSSION:** Studies indicate that tilapia skin acts as an effective xenograft due to its type I and III collagen and strong adherence. It promotes faster healing, reduces pain and dressing changes, and shows good cost-effectiveness. **FINAL CONSIDERATIONS:** Tilapia skin demonstrates satisfactory clinical performance, representing a viable alternative to optimize resources in large healthcare systems, with potential for expansion and application in different clinical contexts.

KEYWORDS: Burns; Wound healing; Tilapia.

1 INTRODUCTION

According to data from the United Nations (UN), more than 180,000 people die annually worldwide due to burns, and even those who survive face challenges such as loss of function in the affected area and prolonged hospitalization. In most cases, complications in these types of wounds are a result of the favorable conditions for microbial growth provided by the wound bed itself, predisposing to infections[1].

Currently, modern dressings are based on synthetic polymers that can be grouped into hydrogels, alginates, hydrocolloids, films, and foams. However, even though they provide a favorable environment for wound regeneration, each category of synthetic polymer has its own characteristic disadvantage, such as limited absorption in hydrogels and hydrocolloids[1].

In this context, biological alternatives similar to human skin have been sought in order to minimize trauma and increase treatment effectiveness. With advances in research, biological and solid dressings have shown superiority over synthetic ones by reducing wound closure time, increasing reepithelialization rates, and decreasing patient pain[3].

With this purpose, Nile tilapia skin (*Oreochromis niloticus*) emerges as a strong candidate for burn care, as it eliminates the need for frequent dressing changes, reducing pain, suffering, and treatment costs. Its microscopic morphological structure is similar to human skin and it also presents high tensile strength and elasticity. In addition, the collagen present in its structure is capable of sealing the wound and minimizing exudates and crust formation[3].

The objective of the present study is to identify, analyze, and discuss the evidence available in the literature regarding the benefits of using Nile tilapia skin in burn care.

2 METHODS

This is a narrative literature review, with a descriptive and analytical approach, developed with the aim of gathering and synthesizing scientific publications on the proposed topic. For the process of searching for scientific articles, the databases PubMed, Virtual Health Library (BVS), and CAPES Journal Portal were used.

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The search strategy was based on descriptors indexed in DeCS/MeSH combined with the Boolean operators AND and OR: (Queimaduras OR Burns) AND (Cicatrização OR Wound healing) AND (Tilápia OR Tilapia), selecting studies published between 2021 and 2026.

The selection of articles was based on their ability to answer the guiding question: "How can the use of tilapia skin help in the treatment of burns?" As a delimitation criterion, studies involving humans were prioritized, excluding animal models, and directly addressing the theme.

3 RESULTS AND DISCUSSION

Following the previously established criteria, 10 articles were selected and categorized in Table 1 according to their results and respective main authors.

Table 1. Categorization of evidence on the benefits of using tilapia skin in the treatment of burns. Fortaleza-CE, 2026.

Item	Category	Author(s)
C1	Studies that demonstrated cost-benefit ratio	Cruz GP *et al.*[7]; Alves RCJA *et al.*[10]; Ibrahim M *et al.*[2]
C2	Studies that demonstrated improvement in regeneration, increased reepithelialization, reduction of pain, excellent adherence, and absence of side effects.	Antunes PAF *et al.*[5]; Ibrahim M *et al.*[2]; Zimba BL *et al.*[3]; Cavalcante FP *et al.*[6]; Tozetto R *et al.*[8]; Zapata-Hidalgo KL *et al.*[9]; Alves RCJA *et al.*[10]; de la Cruz DPI *et al.*[11]
C3	Studies that demonstrated exudate control.	Putri NM *et al.*[4]
C4	Studies that demonstrated tilapia skin as a better alternative to other conventional therapies.	Ibrahim M *et al.*[2]; Putri NM *et al.*[4]; de la Cruz DPI *et al.*[11]

Source: the authors. Legend: C (thematic category).

Upon reviewing the results, it is evident that Nile tilapia skin is a modern and innovative potential tool capable of effectively treating burns of multiple depths, proving to be a viable alternative compared to conventional therapy, with promising outcomes and suitable for use in both developed and developing countries[6, 7, 2].

The benefits of tilapia in burn treatment are due to its richness in types 1 and 3 collagen, which are structurally similar to human collagen, playing important roles in wound healing processes and accelerating the cicatrization process. Additionally, tilapia skin also contains alanine and proline, which stimulate collagen production in the wound. Furthermore, this xenograft has excellent adherence and high tensile strength, preventing it from breaking easily, effectively occluding the wound and reducing the need for frequent dressing changes that cause anxiety and pain in patients. As observed in C2, multiple authors converge on these findings[5, 3, 2, 6].

Tilapia skin provides a highly moist environment and also contains a non-infectious microbiota. This characteristic, combined with its strong adherence, makes it a powerful occlusive barrier capable of absorbing excess fluids without the need for frequent changes, highlighting its potential in the care of exudative burns. Thus, due to this property, tilapia skin may become an excellent alternative compared to paraffin-impregnated gauze for the treatment of these types of wounds[4].

Moreover, studies show that this biological dressing has no observed side effects, which may indicate that this method can be widely used. In this context, innovations are emerging that are still being refined, such as fish skin decellularization, which reduces immune response and promotes differentiation, mineralization, and cellular activity of stem cells. Therefore, the use of fish skin, such as tilapia, prepared through this decellularization process has become an excellent treatment option for acute, chronic, superficial, and deep wounds due to its unique biochemical characteristics, demonstrating superior performance compared to standard treatments such as silver sulfadiazine[2, 5, 11].

Finally, it is evident that by reducing patient pain, decreasing the need for dressing changes, and being a relatively low-cost material compared to other synthetic dressings, tilapia skin presents itself as an

affordable and highly effective alternative for reducing costs associated with dressings and analgesics. This makes it viable for widespread use in low-income countries or large-scale healthcare systems such as the Brazilian Unified Health System (SUS)[10, 2, 7].

4 FINAL CONSIDERATIONS

Nile tilapia skin constitutes an innovative, safe, and highly effective biological xenograft for the management of burns of multiple depths. Its biochemical and structural properties accelerate wound healing, optimize wound occlusion, and significantly reduce patient pain by decreasing the need for frequent dressing changes. Given its excellent cost-benefit ratio and the optimization of healthcare resources, this dressing is consolidated as a viable and strategic therapeutic alternative for implementation in large-scale healthcare systems, such as the Brazilian Unified Health System (SUS), in both high- and low-income settings.

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COMPARATIVE ANALYSIS OF GESTATIONAL TOXOPLASMOSIS CASES IN THE NORTHEAST AND SOUTHEAST REGIONS OF BRAZIL IN 2025

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ABSTRACT

INTRODUCTION: Gestational toxoplasmosis is an infectious disease caused by *Toxoplasma gondii* that can cause severe maternal-fetal complications, being considered a public health problem. **OBJECTIVE:** To conduct a survey and compare the reported cases of gestational toxoplasmosis in the Northeast and Southeast regions of Brazil in 2025. **METHODOLOGY:** A quantitative study was conducted using data from SINAN, considering residence area, age group, education level, race, and clinical evolution. **RESULTS AND DISCUSSION:** The Northeast presented a higher number of cases (4,561) compared to the Southeast (4,072). In both regions, there was a predominance among pregnant women aged 20 to 39, women of mixed race, and those with low education levels. A high frequency of "ignored/blank" records was also observed, highlighting weaknesses in epidemiological surveillance, corroborated by various studies in the literature. **CONCLUSION:** It is concluded that socioeconomic factors, inequalities in access to healthcare services, and weaknesses in prenatal care directly influence the occurrence of this infection in Brazil.

KEYWORDS: Epidemiology; Gestational toxoplasmosis; Health surveillance.

1 INTRODUCTION

Toxoplasmosis is a globally distributed disease caused by the protozoan *Toxoplasma gondii*, whose cycle involves felids as definitive hosts[1]. The infection commonly occurs thru the ingestion of contaminated water and food, or thru direct contact with feces or soil contaminated by the feces of these animals[2]. The disease presents a higher risk factor when acquired during the gestational period, as transplacental transmission can cause fetal and neonatal death, as well as severe neurological and systemic damage[3].

The prevalence of gestational toxoplasmosis can be justified by socioeconomic factors, such as geographical location, basic sanitation conditions, dietary and hygiene habits, and the quality of prenatal care[1]. In Brazil, the Northeast and Southeast regions face challenges related to socioeconomic inequality, urbanization issues, and high population density, which indicates the importance of strengthening surveillance to adopt better disease prevention strategies[4]. Thus, the present work aims to survey and compare the reported cases of gestational toxoplasmosis in the Northeast and Southeast regions of Brazil in the year 2025.

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2 METHODS

This is a quantitative study, in which data were collected from the Notification of Diseases Information System (SINAN), considering data on reported cases of gestational toxoplasmosis during the year 2025 in the Northeast and Southeast regions of Brazil. The variables used included residential area, age group, education level, race, and clinical progression, and the data were subjected to simple descriptive statistical analysis using Microsoft Excel software.

3 RESULTS AND DISCUSSION

According to the results obtained, it was observed that the Northeast region presented the highest number of reported cases of gestational toxoplasmosis in Brazil in 2025, totaling 4,561 records, while the Southeast region accounted for 4,072 cases. Among the northeastern states, Bahia stood out with the highest percentage of notifications (30.8%), followed by Ceará (14.5%) and Rio Grande do Norte (11.2%). In the Southeast region, São Paulo accounted for the largest share of cases (44.2%), followed by Mynas Gerais (27.8%) and Rio de Janeiro (17.2%).

The comparative analysis between the two regions shows that, although the Southeast has a higher population density, the Northeast reported a higher number of cases. As discussed in the study by Marciano *et al.*[5], which linked this scenario to socioeconomic factors, sanitary conditions, difficulties in accessing adequate prenatal care, and greater social vulnerability in certain areas of the northeastern region. Moreover, the high concentration of notifications in states with high population density and significant socioeconomic inequalities in both regions indicates that gestational toxoplasmosis is directly associated with social and structural factors[6]. Thus, aspects related to access to healthcare services, quality of prenatal care, epidemiological surveillance, early diagnosis, and gestational follow-up can significantly influence the number of cases recorded in different Brazilian regions[4-6].

Regarding the age group of pregnant women affected by toxoplasmosis, a predominance of cases among young adult women was observed in both analyzed regions. In the Northeast region, the highest frequency of notifications occurred among pregnant women aged 20 to 39 years, corresponding to 78.1% of the cases, followed by the age group of 15 to 19 years (17.3%). The lowest percentages were recorded among pregnant women aged up to 14 years (1.6%) and between 40 and 59 years (3.1%). Similarly, in the Southeast region, the age group of 20 to 39 years also concentrated the majority of notifications, representing 81.6% of the cases, followed by pregnant women aged 15 to 19 years (14.1%). The lowest frequencies occurred among those under 14 years old (0.8%) and women aged 40 to 59 years (3.5%).

These findings corroborate those described by Jesus[4], who also evidenced in his study a higher incidence of gestational toxoplasmosis among women of reproductive age, where 66% of the recorded cases occurred in pregnant women aged between 20 and 35 years, similar to what was identified in this research. Moreover, he presented a significant percentage of notifications among adolescents aged 15 to 19 in both regions analyzed, a factor that may be associated with conditions such as low education, unfavorable socioeconomic conditions, and limited knowledge about the preventive measures of the disease.

Regarding education, it was observed that in both regions there is a prevalence of reported cases among people with complete high school, corresponding to 30.5% of cases in the Northeast region and 34.9% in the Southeast region; while the lowest rates were found in people with incomplete/completed higher education, with 7.0% of cases in the Northeast region and 7.7% in the Southeast region.

Thus, it can be inferred that there is a higher incidence of disease records in pregnant women with lower levels of education, data that are corroborated by the study of Rezende *et al.*[7], who conducted an epidemiological survey of gestational toxoplasmosis in Brazil between the years 2019 and 2023 and observed a similar pattern over the five years in question.

Regarding race, it was observed that the self-declared "brown" population was more affected by the disease, with 68.6% of the reported cases in the Northeast region and 45.3% in the Southeast region. According to the study by Bezerra *et al.*[8], which analyzed the occurrence of gestational toxoplasmosis in Bahia between the years 2019 and 2024, a higher prevalence was observed among brown and black

pregnant women, reflecting the vulnerability of these groups and denoting the inequality in access to health services and information.

Regarding the clinical progression of the disease, in the Northeast region, 57.9% of the records fall into the "ignored/blank" category, with a reported cure rate of 42.1% of the cases, no deaths recorded due to the disease, and only one death from another cause. Similarly, in the Southeast region, 51.0% of cases are in the "ignored/blank" category, with 48.9% of patients cured and one death recorded due to disease complications. According to the study by Castro *et al.*[9], the high amount of "ignored" data exposes the failure in epidemiological surveillance and inadequate patient follow-up, which limits the quality of the analysis.

4 FINAL CONSIDERATIONS

It is concluded that gestational toxoplasmosis remains an important public health problem in the Northeast and Southeast regions of Brazil, with a higher number of notifications in the Northeast region and predominance among pregnant women aged 20 to 39 years. The results highlight the influence of socioeconomic factors, inequalities in access to healthcare services, and weaknesses in prenatal care monitoring on the occurrence of the disease, especially among socially vulnerable populations. Moreover, the high number of records classified as "ignored/blank" demonstrates limitations in epidemiological surveillance and the quality of notifications. Thus, the need to strengthen health education actions, early diagnosis, prenatal care, and epidemiological surveillance is reinforced, aiming to reduce the impacts of gestational toxoplasmosis in Brazil.

COMPLICATIONS IN WOMEN WITH EXTENSIVE BURNS: AN INTEGRATIVE REVIEW

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ABSTRACT

INTRODUCTION: Extensive burns carry high morbidity and mortality. Women experience poorer outcomes influenced by biological and social factors. **OBJECTIVE:** To identify the main complications in women with extensive burns from evidence published between 2021 and 2026. **METHODS:** An integrative review searched PubMed/MEDLINE, SciELO, LILACS and EMBASE. Studies involving adults with ≥20% total body surface area burned (TBSA) and outcomes by sex were included. **RESULTS AND DISCUSSION:** Women showed greater mortality, sepsis, acute kidney injury, acute respiratory distress syndrome, multidrug-resistant infections and psychological sequelae. Lower estrogen after menopause aggravates complications, and pregnant women have a higher risk of sepsis. **CONCLUSION:** Women are a high-risk group requiring a tailored approach. Gaps in protocols and research remain and must be addressed to reduce morbidity and mortality and improve care.

KEYWORDS: Complications; Female; Wounds and injuries; Infection; Mortality.

INTRODUCTION

Extensive burns are among the most severe injuries, associated with high morbidity and mortality and a need for multidisciplinary intensive care[1]. Hormonal, physiological, social and psychological factors influence women's response to trauma and their clinical outcomes. Women with severe burns show greater mortality than men even when total body surface area burned (TBSA), inhalation injury and age are comparable[1].

Worldwide, more than 11 million burns occur annually, with about 180 thousand deaths, chiefly in low- and middle-income countries. Women are vulnerable because of greater exposure to domestic accidents and gender-based violence. Data indicate that 68.3% of intentional burns among women involve more than 50% TBSA, underscoring their severity[1].

The guiding question was: What complications do women with extensive burns experience according to recent literature? This review assembles current evidence to advance scientific knowledge and improve care. It is warranted by the high morbidity and mortality and the lack of synthesized evidence specific to women. Hormonal, physiological and sociocultural differences affect outcomes; understanding them can guide more targeted and effective care.

1.2 OBJECTIVE

To identify the major complications among women with extensive burns based on scientific evidence from 2021 to 2026.

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METHODS

This integrative literature review followed the guidance of Mendes, Silveira and Galvão[2] and PRISMA 2020 criteria[3]. The National Library of Medicine and National Institutes of Health (PubMed/MEDLINE), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Health Sciences Literature (LILACS) and Excerpta Medica Database (EMBASE) were searched between April and May 2026. DeCS/MeSH descriptors were combined as ("Burns" OR "Extensive burns" OR "Severe burns") AND ("Women" OR "Female" OR "Gender") AND ("Complications" OR "Sepsis" OR "Mortality" OR "Acute kidney injury" OR "ARDS" OR "Infection" OR "Post-traumatic stress disorder").

Original articles, systematic reviews and meta-analyses from 2021 to 2026 were eligible if they included adults aged ≥18 years, TBSA ≥20% or severe burns, were available in full in English, Portuguese or Spanish, and analyzed outcomes among women or stratified by sex. Case reports, pediatric studies, incomplete abstracts and unavailable full texts were excluded. Methodological quality was assessed using PRISMA[6] and Joanna Briggs Institute (JBI) tools; studies scoring ≥70% were included.

RESULTS AND DISCUSSION

Of 847 records (100%), 198 (23.4%) duplicates were removed, leaving 649 (76.6%). Of these, 412 (63.5%) were selected for title and abstract screening, and 237 (57.5%) were excluded at this stage. In the final stage, 237 (57.5%) articles underwent full-text review; 15 (6.3%) met the eligibility criteria and formed the final sample.

Nine studies published between 2022 and 2025 indicate growing interest in the topic. Sample sizes ranged from 55 to more than 19,000 patients[1]. Mean TBSA ranged from 38% to 92%[1,2], with flame burns predominating. All studies reported outcomes in women, allowing comparisons by sex.

Table 1 presents author, year, study design, sample characteristics, complications and main findings.

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Table 1: Articles selected for analysis.

Author / year	TBSA (%)	Complications	Main findings	Difference by sex
Mehta *et al.*, 2022	Variable	Mortality, general complications	Women differed in care and outcomes	Yes
Bryski *et al.*, 2023	Variable	Mortality	Gender influenced mortality in some settings	Yes
Dobson *et al.*, 2024	Severe	Systemic dysfunction	Substantial systemic inflammatory response	No
Song *et al.*, 2025	Mild to moderate	General complications	Estrogen reduces complications	Yes
Corona *et al.*, 2022	–*	General outcomes	Female hormones influence recovery	Yes
Sunnybrook *et al.*, 2025	Severe	Sepsis	High incidence of sepsis	No
Wang *et al.*, 2025	Extensive	Sepsis, mortality	Effective prediction models	No
Xiao *et al.*, 2024	Severe	Inhalation injury	Affects resuscitation and prognosis	No
Bittner & Sheridan, 2023	Severe	ARDS	High incidence in extensive burns	No
Wang *et al.*, 2021	Variable	ARDS	Associated with high mortality	No
Legrand *et al.*, 2024	Severe	Acute kidney injury	Common and serious complication	No
You *et al.*, 2022	Severe	Late AKI	Very poor prognosis	No
Hemmati *et al.*, 2023	–*	Multidrug-resistant infections	High burn risk	No
Gavrilova *et al.*, 2024	Variable	PTSD/depression	Higher risk in women	Yes
Bagby *et al.*, 2022	Variable	Sepsis	Higher risk in pregnant women	Yes
Legemate *et al.*, 2024	–*	Pregnancy complications	Scars affect pregnancy	Yes

Source: Prepared by the authors, 2026.

*The article did not describe this variable.

Mehta *et al.*[1] and Bryski *et al.*[4], analyzing WHO Global Burn Registry data, reported higher in-hospital mortality in women than men (26% vs. 16%) and lower access to surgery (49% vs. 56%), both with $p<0.001$. Bryski *et al.*[4] found female sex an independent predictor of death, with 2.16 times higher odds in middle-income countries. Dobson *et al.*[5] attribute part of this difference to hormonal and anatomical factors and highlight the need to include sex in clinical risk stratification.

Song *et al.*[6] and Corona *et al.*[7] reported lower risk of death, sepsis and acute kidney injury (AKI) in younger women than in older women. Estrogen therapy reduced complications, suggesting a protective effect of sex hormones. Sexual dimorphism was relevant to thermal trauma response ($p<0.05$)[8,9].

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Sepsis is the main cause of morbidity and mortality after extensive burns. A Canadian multicenter cohort found sepsis in 20.1% of adults with ≥5% TBSA, with median onset on day 10 after injury. Female sex was associated with a higher risk of death in patients with sepsis and was an independent prognostic factor[10,11]. Wang *et al.*[12] identify TBSA, shock and the Sequential Organ Failure Assessment (SOFA) score as major risk predictors.

Inability to close extensive burn wounds early prolongs exposure to resistant pathogens, with especially severe consequences in postmenopausal women whose immunity is already compromised[12,13]. Multidrug-resistant pathogens such as *Pseudomonas* and *Acinetobacter* predominate after the first days of hospitalization, worsening prognosis[13]. Multidisciplinary management by infectious disease specialists, pharmacists and burn surgeons is essential to curb resistance[13].

AKI was common (9–50%) and carried a worse prognosis, especially with late onset[14,15]. Respiratory complications such as acute respiratory distress syndrome (ARDS) are associated with inhalation injury and higher pneumonia (47.0% vs. 11.8%), AKI (23.5% vs. 2.9%) and mortality[15,16]. Hormonal deficiency aggravates these outcomes in older women[9,10,14,15].

Psychological sequelae are significant and often underestimated[12]. Gavrilova *et al.*[16] found that, in the first year after a burn, women had higher relative risks than men for anxiety (RR=1.805), depression (RR=1.587), post-traumatic stress disorder (PTSD; RR=1.263) and adjustment disorders (RR=1.351). Disfigurement, functional limitations and social stigma take a heavier toll on quality of life, making early psychiatric care essential.

Bagby *et al.*[17] estimated a 4.32% incidence of burns in pregnant women in the United States and a threefold risk of sepsis (RR=3.0). In a review of 217 patients, Legemate *et al.*[18] found that pregnancy generally progresses normally after abdominal scarring, but the risk of pain, tightness and scar rupture is higher, requiring specialist obstetric follow-up[16].

CONCLUSION

Complications in women with extensive burns extend beyond tissue damage and are strongly influenced by gender disparities and sexual dimorphism. Female sex independently predicts higher mortality and reduced access to early surgery. Postmenopausal hormonal decline worsens prognosis by impairing immunity, delaying healing and increasing the risk of sepsis, AKI and respiratory dysfunction. Physical sequelae cause severe psychological distress, including depression, anxiety and PTSD, through changes in self-image; pregnancy also brings specific obstetric risks. Management should therefore go beyond the traditional biomedical model and incorporate gender and hormonal stratification into compassionate multidisciplinary care.

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EFFECTS OF ENDOMETRIOSIS ON QUALITY OF LIFE IN WOMEN OF REPRODUCTIVE AGE: AN INTEGRATIVE REVIEW

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ABSTRACT
INTRODUCTION: Endometriosis is a chronic inflammatory disease affecting mainly women of reproductive age. Pelvic pain, infertility and emotional changes can significantly affect quality of life. **OBJECTIVE:** To analyze how endometriosis affects quality of life in women of reproductive age, with emphasis on physical, emotional, social and reproductive effects. **METHODS:** An integrative literature review used PICo. The Virtual Health Library (BVS), MEDLINE via PubMed and Scientific Electronic Library Online (SciELO) were searched independently in May 2026. The Health Sciences Descriptors (DeCS) “Endometriosis” AND “Quality of life,” and “Women's health” AND “Pelvic pain,” were combined with AND and OR. **RESULTS AND DISCUSSION:** Chronic pain, infertility, anxiety and depression were associated with physical, emotional and social effects, including difficulties with relationships and daily activities. **CONCLUSION:** Endometriosis substantially impairs quality of life, highlighting the importance of early diagnosis and comprehensive multidisciplinary care.

KEYWORDS: Pelvic pain; Endometriosis; Infertility; Quality of life; Women's health.

1 INTRODUCTION

Endometriosis is a chronic inflammatory disease characterized by endometrial-like tissue outside the uterine cavity, mainly affecting women of reproductive age[1]. It is one of the most common gynecological disorders; approximately 10% of women of childbearing age are estimated to be affected worldwide. Its prevalence and clinical consequences make it an important public health problem[2].

Common symptoms include severe dysmenorrhea, chronic pelvic pain, dyspareunia, cyclical bowel and urinary symptoms, fatigue and infertility[3]. Persistent symptoms disrupt daily activities, relationships, work performance and sleep. In addition to physical effects, studies report significant associations with emotional disorders, particularly anxiety and depression[4].

Despite advances in understanding the disease, diagnosis is often delayed[5]. Many women live with disabling symptoms for years before diagnosis. This is often associated with normalization of menstrual pain, limited specialist access and symptoms resembling other gynecological and gastrointestinal conditions[6].

The disease also has important social and economic effects, including reduced productivity, work absenteeism and lasting functional limitations[7]. The guiding question was: How does endometriosis affect quality of life in women of reproductive age?

2 OBJECTIVE

To analyze how endometriosis affects quality of life in women of reproductive age, focusing on its physical, emotional, social and reproductive effects.

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3 METHODS

This integrative review followed six steps: 1) defining the topic; 2) establishing inclusion and exclusion criteria; 3) searching the literature; 4) selecting and analyzing studies; 5) interpreting results; and 6) presenting the review.

This method makes it possible to analyze and synthesize scientific knowledge about the topic.

The search used PICo: P = population (women of reproductive age with endometriosis), I = phenomenon of interest (the disease's effects) and Co = context (quality of life).

Independent searches were conducted in the Virtual Health Library (BVS), MEDLINE via PubMed and Scientific Electronic Library Online (SciELO) in May 2026.

The DeCS descriptors “Endometriosis,” “Quality of life,” “Women's health” and “Pelvic pain” were combined in Portuguese and English using AND and OR.

Eligible publications were freely available in full text in Portuguese or English, published between 2020 and 2025, and directly addressed quality of life in women of reproductive age with endometriosis. Dissertations, theses, duplicates, incomplete abstracts and publications not addressing the objective were excluded.

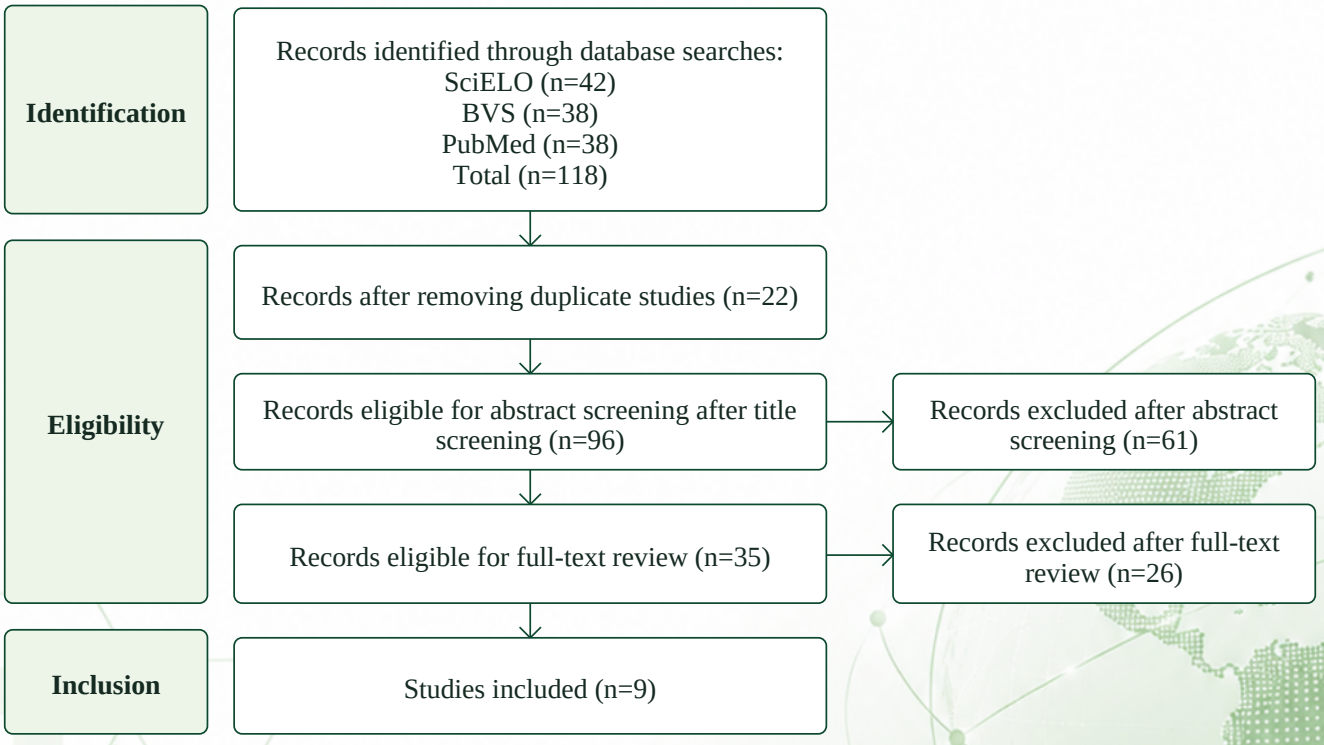
The selected studies were read first for exploration and then for analysis. Findings were grouped into physical, emotional, social, sexual and reproductive effects.

4 RESULTS AND DISCUSSION

Titles and abstracts retrieved from the databases were screened. Duplicates, incomplete articles and studies incompatible with the research aim or eligibility criteria were excluded. Nine articles (9) formed the final sample (Figure 1).

Few studies specifically addressed quality of life in women of reproductive age with endometriosis. This is an important gap given the disease's high prevalence and biopsychosocial effects.

Figure 1 – Flowchart of study selection for the integrative review.



Source: Prepared by the authors, 2026.

The studies found significant, multifaceted effects on quality of life across physical, emotional, social and reproductive domains[7]. Chronic pelvic pain, often accompanied by severe dysmenorrhea, dyspareunia and cyclical bowel or urinary symptoms, was a common finding. Persistent pain was a main cause of functional limitation, affecting daily activities, work and autonomy[8].

Chronic pain had a substantial effect on physical and emotional well-being, contributing to fatigue, irritability, sleep disturbances and reduced function. Greater pain intensity was directly related to poorer perceived quality of life, particularly with advanced disease or delayed diagnosis[8]. Recurring symptoms also contributed to persistent psychological distress, harming mental health and relationships[8].

Infertility was one of the most important reproductive consequences[5]. Inflammatory, immunological and hormonal changes interfere with endometrial receptivity, oocyte quality and embryo implantation, reducing the likelihood of spontaneous conception. Women with endometriosis-related infertility showed higher levels of emotional distress, anxiety and low self-esteem, especially when faced with reproductive planning difficulties and repeated unsuccessful attempts to conceive[5].

Infertility involves biological limitations and substantial psychosocial effects[5]. Women reported frustration, guilt, helplessness and uncertainty about motherhood, demonstrating effects beyond the physical domain that touch on feminine identity and social and family expectations[5]. Endometriosis-related infertility is thus a complex condition with potentially profound effects on emotional health and quality of life[5].

Anxiety, depression, psychological stress and persistent emotional symptoms were common among women with endometriosis[6]. Distress was linked to ongoing pain, disease-related limitations, uncertainty about treatment and reproductive difficulties. Some studies found that lengthy diagnostic delays contributed to feelings of invalidation and helplessness, particularly when health services minimized pain complaints[6].

Physical and emotional limitations had substantial social and occupational effects[9]. Many women reported reduced productivity, frequent leave and poorer academic and work performance. Severe symptoms limited social, family and relationship activities and contributed to isolation. Dyspareunia also harmed sexual life and relationships, affecting intimacy, self-esteem and relationship quality[9].

Delayed diagnosis was another frequent concern. Women often remained without a definitive diagnosis for years despite persistent, disabling symptoms[6]. Delay can allow the disease to progress, worsen physical and emotional distress and limit early intervention[6]. It also highlights gaps in recognizing symptoms and appropriately managing suspected cases[6].

The findings support understanding endometriosis as a systemic, biopsychosocial condition that extends beyond gynecological symptoms[2]. Comprehensive multidisciplinary care should address pain and infertility and provide emotional, psychological and social support. Expanding research and strengthening women's health policies are essential for early diagnosis, appropriate treatment and improved quality of life[2].

5 FINAL CONSIDERATIONS

Endometriosis substantially impairs quality of life in women of reproductive age across multiple aspects of health and well-being. Chronic pelvic pain, dyspareunia and infertility affect daily activities, relationships, sexual life and reproductive planning. Anxiety, depression and psychological distress are also associated with the disease and are often worsened by persistent symptoms and delayed diagnosis[8].

Comprehensive multidisciplinary care should provide clinical management and emotional, social and reproductive support. More research, earlier diagnosis, health education and compassionate care are needed to reduce the biopsychosocial impact and improve quality of life[8].

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INTRODUCING MOLECULAR HPV DNA TESTING IN BRAZIL'S UNIFIED HEALTH SYSTEM: INNOVATION, ACCESS AND CERVICAL CANCER PREVENTION

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ABSTRACT
INTRODUCTION: Cervical cancer remains a major public health challenge in Brazil and Latin America. Brazilian screening has historically relied exclusively on conventional cytology, offered opportunistically and with persistently inadequate coverage. **OBJECTIVE:** To analyze the introduction of HPV DNA testing in Brazil's Unified Health System (SUS) for cervical cancer prevention. **METHODS:** An integrative literature review used PICo and searched the Virtual Health Library (BVS), Scientific Electronic Library Online (SciELO) and MEDLINE/PubMed. The search took place in May 2026 and covered 2021 to 2026. **RESULTS:** Molecular HPV DNA testing is a significant change in cervical cancer screening and a technological innovation compared with conventional cytology. **CONCLUSION:** Molecular HPV DNA testing represents an important advance in cervical cancer screening and offers greater diagnostic accuracy than conventional cytology.

KEYWORDS: Cervical cancer; Cancer prevention; Women's health; DNA tests.

1 INTRODUCTION

Cervical cancer remains one of the most common cancers among women in Brazil and a major public health concern. Recent estimates from Brazil's National Cancer Institute (INCA) indicate that rates remain high, particularly in regions with limited screening coverage and access to health services. Although the disease is preventable, mortality remains substantial, exposing gaps in prevention and early diagnosis[1].

Persistent infection with oncogenic human papillomavirus (HPV) genotypes is the main factor associated with invasive cervical cancer[2]. This understanding has led to technological advances in prevention, notably HPV vaccination and molecular testing for viral DNA. HPV DNA testing is more sensitive than conventional cytology at identifying precursor lesions[1].

Historically, Brazilian cervical cancer screening centered on opportunistic cytopathology and inadequately covered the target population. Recent World Health Organization (WHO) recommendations and the introduction of HPV DNA testing into Brazil's Unified Health System (SUS) represent advances toward broader screening and stronger prevention[3].

It is therefore necessary to understand the effects of adopting HPV DNA testing on public health policy and prevention. The guiding question was: How does the introduction of molecular HPV DNA testing into SUS contribute to cervical cancer screening?

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2 OBJECTIVE

To analyze the introduction of HPV DNA testing into Brazil's Unified Health System to prevent cervical cancer.

3 METHODS

This integrative literature review followed six steps: 1) defining the topic; 2) establishing inclusion and exclusion criteria; 3) searching the literature; 4) selecting and analyzing studies; 5) interpreting results; and 6) presenting the review. The method makes it possible to synthesize and analyze scientific knowledge on the topic.

The search used PICo: P was the phenomenon of interest (molecular HPV DNA testing), I the focus (its adoption and contribution to cervical cancer screening and prevention), and Co the context (Brazil's Unified Health System). The Virtual Health Library (BVS), Scientific Electronic Library Online (SciELO) and Medical Literature Analysis and Retrieval System Online (MEDLINE/PubMed) were searched in May 2026 for the period 2021 to 2026.

Eligible studies were available free in full text in Portuguese, English or Spanish. They addressed molecular HPV DNA testing for cervical cancer screening, focusing on adoption, prevention and expanded access within SUS and in middle- and low-income countries. Dissertations, theses, duplicates, editorials without original data, case reports and publications outside the time frame were excluded.

The search terms “HPV DNA,” “cervical cancer,” “molecular testing,” “cancer prevention” and “women's health” were combined in different ways using AND and OR.

4 RESULTS AND DISCUSSION

PubMed/MEDLINE, SciELO and LILACS initially yielded 132 records. After excluding 45 duplicate records, 87 remained for screening. Titles and abstracts were screened, yielding 19 studies for full-text review. Eleven studies (11) met the eligibility criteria and formed the analytical sample of the integrative review.

Molecular HPV DNA testing represents an important change in cervical cancer screening and a technological advance over conventional cytology[4]. Cytopathology depends on sampling quality and the examiner's morphological interpretation. Molecular testing detects the genetic material of oncogenic HPV types directly, improving diagnostic accuracy and reducing interobserver variability[4].

The method has sensitivity above 90% for detecting high-grade cervical intraepithelial lesions (CIN2+), whereas conventional cytology has lower sensitivity. The test is also highly reproducible because it does not rely on subjective interpretation, supporting its consistency as a primary screening method[5].

Brazilian evidence, notably a demonstration program in Indaiatuba, São Paulo, supports these findings. HPV DNA testing detected more precursor lesions than cytology, with significantly more cases of CIN2 and CIN3, indicating greater sensitivity in population screening[6]. Longitudinal follow-up also showed earlier detection of invasive cervical cancer, up to a decade before diagnosis under opportunistic cytology-based screening[6].

Studies in different populations consistently show greater sensitivity than cytology for detecting high-grade lesions (CIN3+). This supports HPV testing as the superior primary screening method, particularly in middle- and low-income countries[5].

The introduction of HPV DNA testing into SUS has been associated with better cost-effectiveness in organized programs with high population coverage, chiefly by reducing invasive cancer incidence and the cost of treating advanced disease. These gains depend on organized screening and are limited where opportunistic testing persists[7].

Vaginal self-sampling is an important innovation: it allows women to collect their own sample and broadens screening access[7]. It reduces geographical and sociocultural barriers, is highly acceptable and performs comparably to clinician-collected sampling. It also promotes participation among vulnerable populations[8].

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HPV DNA testing also requires reorganizing care for women with positive results. Because the method is highly sensitive and detects transient infections, some positive results do not indicate clinically relevant lesions, requiring staged triage[9]. Women with high-risk genotypes such as HPV 16 and 18 are referred directly for colposcopy; others undergo reflex cytology, which optimizes resources and avoids unnecessary referrals[10].

Despite these advances, implementation in SUS faces major structural challenges[10]. Laboratory infrastructure is insufficient and unevenly distributed, and access disparities are particularly harmful in regions with a higher disease burden. Primary health care teams must also be trained to adapt to the new screening model[11].

Molecular HPV DNA testing has considerable potential to improve cervical cancer screening in SUS through better diagnostic accuracy, wider access and potential mortality reduction. Its effectiveness depends on overcoming structural challenges and establishing organized, equitable screening[11].

5 FINAL CONSIDERATIONS

Molecular HPV DNA testing represents an advance in cervical cancer screening: it is more accurate than conventional cytology and highly sensitive for high-grade intraepithelial lesions. Its adoption in SUS could strengthen prevention, broaden access and improve care pathways.

Effectiveness in public health care depends on establishing an organized screening program, coordinating the care network, increasing population coverage and strengthening laboratory infrastructure. Despite gains for early detection and prevention, full implementation requires overcoming operational challenges and addressing regional disparities in access.

STRATEGIES FOR WELCOMING AND SUPPORTING WOMEN EXPERIENCING VIOLENCE IN HEALTH SERVICES: AN INTEGRATIVE REVIEW

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ABSTRACT

INTRODUCTION: Violence against women is a public health concern encountered in health care. Health services have a central role in welcoming and supporting women but face structural and training limitations. **OBJECTIVE:** To analyze research on strategies for welcoming and supporting women experiencing violence in health services. **METHODS:** This integrative review used PICO and searched PubMed/MEDLINE, SciELO, LILACS and EMBASE in 2025 for studies published between 2021 and 2026. Fifteen (15) articles were selected after appraisal with JBI tools. **RESULTS AND DISCUSSION:** Skilled listening, therapeutic relationships and compassionate care were central strategies. Underreporting and weak service coordination remained challenges. **CONCLUSION:** Effective support depends on professional training and service organization, requiring stronger networks and ongoing education.

KEYWORDS: Welcoming and support; Primary health care; Health services; Violence against women.

INTRODUCTION

Violence against women is a serious public health problem and one of the most persistent human rights violations worldwide. Approximately one in three women is estimated to have experienced physical or sexual violence by an intimate partner or another person during her lifetime, with severe consequences for physical, mental, sexual and reproductive health[1].

Health services play a strategic role in identifying, supporting and referring women experiencing violence and are often their first institutional contact with the social protection network[2,3]. Welcoming and support involve an ethical, compassionate and accountable professional response to suffering, including skilled listening, a therapeutic relationship, institutional accountability and comprehensive care[4–5].

The guiding question was: What strategies do health services use to welcome and support women experiencing violence? Mapping and consolidating knowledge on these strategies can improve care, inform institutional protocols and strengthen public policies within Brazil's Unified Health System (SUS). The study is warranted by the need to improve both care and the organization of the service network.

OBJECTIVE

To analyze scientific research on strategies for welcoming and supporting women experiencing violence within health services.

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METHODS

An integrative literature review synthesizes primary studies with different designs to provide a broad, rigorous understanding[7]. It followed six steps: 1) identifying the topic and developing the research question; 2) establishing inclusion and exclusion criteria; 3) searching for and selecting studies; 4) appraising methodological quality; 5) analyzing and synthesizing data; and 6) presenting the results.

The guiding question used PICO: P = women experiencing violence; I = welcoming and support strategies in health services; C = not applicable; O = improved services and quality of care.

The National Library of Medicine and National Institutes of Health (PubMed/MEDLINE), Scientific Electronic Library Online (SciELO), Latin American and Caribbean Health Sciences Literature (LILACS) and Excerpta Medica Database (EMBASE) were searched from March to May 2025. Controlled and free-text terms in Portuguese and English included “Violence against Women,” “Welcoming and support,” “Health Services” and “Primary Health Care,” combined with AND and OR as appropriate for each database[3]. Two reviewers independently developed and applied the search to support reproducibility.

Original articles and reviews from 2021 to 2026 in Portuguese, English or Spanish were included if full text was available and they addressed welcoming and supporting women experiencing violence[6]. Editorials, letters, theses, dissertations, monographs, isolated case reports, duplicates and studies without full-text access were excluded.

Methodological quality was assessed with Joanna Briggs Institute (JBI) instruments appropriate to each design; disagreements were resolved by consensus. Extracted data included authors, year, journal, database, country, method, objective and main findings. The 15 most relevant and highest-quality articles formed the review sample[9].

RESULTS AND DISCUSSION

The final sample comprised 15 articles (Table 1), published between 2021 and 2025 and indexed in PubMed/MEDLINE (33.3%), SciELO (46.7%) and LILACS (20%). Designs were integrative reviews (33.3%), qualitative studies (40%), a scoping review (6.7%), a systematic review (6.7%), a mixed-methods study (6.7%) and an observational study (6.7%). Most were conducted in Brazil (80%), with 20% conducted internationally. Primary health care was the main research setting.[3,10]

Table 1 lists the selected articles, numbered A1 to A15 for ease of reference, and gives their titles, authors, publication years and journals.

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Table 1: Articles selected for analysis.

No.	ARTICLE TITLE	AUTHORS	PUBLICATION YEAR	JOURNAL
A1.	Cuidado integral às mulheres vítimas de violência.	Coutinho *et al.*	2024	Ciência & Saúde Coletiva
A2.	Processos formativos para o enfrentamento das violências contra as mulheres no setor saúde: uma revisão integrativa.	Oliveira *et al.*	2024	Ciência & Saúde Coletiva
A3.	Domestic Violence Against Women: Experiences of Primary Health Care Professionals.	Rodrigues *et al.*	2024	Texto & Contexto – Enfermagem
A4.	Contributions of clinical simulation in the care of women in situations of violence for training.	Carlos *et al.*	2025	Revista Brasileira de Enfermagem
A5.	Estratégias de identificação e de acompanhamento de mulheres em situação de violência doméstica atendidas na Atenção Primária à Saúde: uma revisão integrativa.	Ferrazza *et al.*	2025	Revista Brasileira de Medicina de Família e Comunidade
A6.	Desafios na tessitura da Rede Socioinstitucional de acolhimento e cuidado às mulheres vítimas de violência.	Dutraa ML; Martins CP.	2023	Saúde e Sociedade
A7.	Acolhimento às mulheres vítimas de violência doméstica no Brasil: Revisão de escopo.	Melo *et al.*	2025	Psicologia e Saúde em Debate
A8.	An evidence-based primary health care intervention to address domestic violence against women in Brazil: a mixed method evaluation.	Bacchus *et al.*	2023	BMC Primary Care
A9.	A enfermagem na atenção à saúde da mulher vítima de violência doméstica: revisão integrativa.	Maranhão *et al.*	2023	Revista Brasileira em Promoção da Saúde
A10.	Assistência de profissionais de saúde às mulheres em situação de violência doméstica	Silva AM; Morais MIS; Oliveira NOS; Santos JRF.	2023	Revista Eletrônica Acervo Enfermagem
A11.	Fluxos de atendimento às mulheres em situação de violência na atenção primária à saúde	Teixeira *et al.*	2022	Revista Ciência Plural
A12.	A integralidade e intersetorialidade da atenção primária à saúde na rede de atendimento a violência contra a mulher.	Amorim *et al.*	2024	Revista Contexto & Saúde
A13.	Training healthcare providers to respond to intimate partner violence against women.	Kalra *et al.*	2021	Cochrane Database of Systematic Reviews

No.	ARTICLE TITLE	AUTHORS	PUBLICATION YEAR	JOURNAL
A14.	Care Provided to Women Victims of Intimate Partner Violence From the Perspective of Health Professionals.	Carneiro *et al.*	2022	Public Health Nursing
A15.	Estudo observacional dos casos de violência contra mulher notificados em um hospital fluminense em 2020.	Élida C; Carlos ARP.	2023	Saúde em Debate

Source: Prepared by the authors, 2026.

Skilled listening, therapeutic relationships and compassionate care underpin effective support for women experiencing violence. The evidence links this approach to comprehensive, interdisciplinary and cross-sector care. Empathetic professionals identify violence more effectively and reduce revictimization[4].

Maranhão *et al.*[8] found that women's first contact with health services is decisive. A supportive response and skilled listening help women disclose violence. Nursing teams play a central role despite ethical and legal challenges and weak cross-sector coordination[8].

Identification and reporting remain difficult. Primary care professionals report feeling powerless and encounter barriers including victims' silence, normalization of violence and limited technical preparation, which hinder diagnosis and management[11–13].

Difficulty recognizing psychological violence contributes to underreporting and invisibility. Lack of protocols disrupts continuity of care[10]. Amorim *et al.*[11] also describe fragmented networks and poor awareness of available services[11].

An ethnographic study identified poor service integration and highlighted participatory management. The quality of support depends on both professional practice and institutional organization and coordination across the network[6,14,15].

Insufficient professional training on violence against women is a recurrent problem in undergraduate and continuing education. It undermines identification, care and referral and can lead to inappropriate practices, stereotypes, revictimization and perpetuation of violence in health services[5].

Kalra *et al.*[9] found that training health professionals to respond to intimate partner violence can improve attitudes, knowledge and communication with survivors, although evidence for lasting behavioral change is limited and varies by setting. They recommend locally tailored training with practical and reflective components and ongoing clinical supervision[9]. An analysis of reflective debriefing after high-fidelity simulation by Carlos *et al.*[16] suggested that simulation can develop skills for supporting women experiencing violence, including communication, clinical reasoning and decision-making in a safe, controlled setting[16].

Bacchus *et al.*[15] showed that training, supervision and network coordination can improve identification and referral in primary health care. Institutional leadership and management support help sustain these actions. The findings support efforts to strengthen Brazil's support network, although limited training and resources remain challenges[6].

Care is affected by individual factors (fear, dependence and isolation) and organizational issues such as heavy workloads and absent protocols, highlighting the need for an intersectional approach[13]. A study in Rio de Janeiro reported a weak service network and racial inequalities in access[17]. This aligns with Ferrazza *et al.*[3], who emphasize skilled listening, multidisciplinary work and continuing education.

CONCLUSION

Despite advances in theory and policy, substantial gaps remain in implementing welcoming and support. These include professional training, standardized pathways and protocols, cross-sector coordination and attitudinal barriers that reduce the quality of care.

Skilled listening, therapeutic relationships and compassionate, gender-responsive and intersectional care are central to an effective response. Professional preparation remains insufficient, and strategies such as clinical simulation and evidence-based training are needed.

Coordination across the network remains essential but is weakened by poor integration and lack of knowledge of care pathways. Continuing education, institutional protocols and broader cross-sector collaboration are recommended to improve care and protect women.