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PHARMACEUTICAL SERVICES FOR TRANSGENDER, TRAVESTI, AND GENDER-DIVERSE INDIVIDUALS IN NATIONAL AND INTERNATIONAL CONTEXTS: A SCOPING REVIEW

ASSISTÊNCIA FARMACÊUTICA ÀS PESSOAS TRANS, TRAVESTIS E DE GÊNERO DIVERSO NOS CONTEXTOS NACIONAL E INTERNACIONAL: UMA REVISÃO DE ESCOPO

SERVICIOS FARMACÉUTICOS PARA PERSONAS TRANSGÉNERO, TRAVESTIS Y DE GÉNERO DIVERSO EN CONTEXTOS NACIONALES E INTERNACIONALES: UNA REVISIÓN DE ALCANCE

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ABSTRACT

Transgender people, travestis, and gender-diverse individuals face barriers to accessing healthcare services, including discrimination, barriers to accessing gender-affirming hormone therapy, and a shortage of trained professionals. In this context, pharmacists can contribute to the safe use of medications and the improvement of comprehensive care. This study aimed to map and synthesize the evidence on pharmaceutical services for transgender populations in national and international contexts. This scoping review was conducted in accordance with the recommendations of the Joanna Briggs Institute (JBI) and PRISMA-ScR. Primary studies published between 2020 and 2026 were included; this timeframe was chosen because this is an emerging field in which scientific output has intensified in recent years. Searches were conducted in MEDLINE (PubMed), LILACS, and SciELO, as well as in the gray literature through Google Scholar and the CAPES Periodicals Portal. Twelve studies were included, highlighting gaps in pharmacists' training, barriers to accessing services and medications, inadequacies in gender identity records, and limitations in the organization of care. Despite these challenges, the studies indicated pharmacists' potential contribution to medication safety and comprehensive care. However, the available evidence remains limited and is predominantly observational and qualitative. There is a clear need to expand professional training and conduct more robust studies assessing the clinical, healthcare, and economic outcomes of pharmaceutical interventions.

KEYWORDS: Public Health. Transgender Persons. Transsexuals. Pharmaceutical Services. Pharmaceutical Care.

RESUMO

Pessoas trans, travestis e de gênero diverso enfrentam barreiras no acesso aos serviços de saúde, incluindo discriminação, dificuldades de acesso à hormonioterapia e insuficiência de profissionais capacitados. Nesse contexto, o farmacêutico pode contribuir para o uso seguro de medicamentos e a qualificação do cuidado integral. Este estudo teve como objetivo mapear e sintetizar as evidências sobre a Assistência Farmacêutica destinada à população trans nos contextos nacional e internacional.

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Trata-se de uma revisão de escopo, conduzida conforme as recomendações do Joanna Briggs Institute (JBI) e do PRISMA-ScR. Foram incluídos estudos primários publicados entre 2020 e 2026, período definido por se tratar de um campo emergente cuja produção científica se intensificou nos últimos anos. As buscas foram realizadas nas bases Medline (PubMed), LILACS e SciELO e na literatura cinzenta, por meio do Google Acadêmico e Portal de Periódicos CAPES. Foram incluídos 12 estudos, que evidenciaram lacunas na formação dos farmacêuticos, barreiras de acesso aos serviços e medicamentos, inadequações nos registros de identidade de gênero e limitações na organização do cuidado. Apesar disso, os estudos apontaram potencial contribuição do farmacêutico para a segurança medicamentosa e o cuidado integral. Contudo, as evidências permanecem limitadas e predominantemente observacionais e qualitativas. Destaca-se a necessidade de ampliar a qualificação profissional e desenvolver estudos mais robustos que avaliem os impactos clínicos, assistenciais e econômicos das intervenções farmacêuticas.

PALAVRAS-CHAVE: Saúde Pública. Pessoas Transgênero. Transexuais. Assistência Farmacêutica. Cuidados Farmacêuticos.

RESUMEN

Las personas trans, los travestis y las personas de género diverso se enfrentan a barreras a la hora de acceder a los servicios sanitarios, entre ellas la discriminación, las dificultades para acceder a la terapia hormonal y la falta de profesionales cualificados. En este contexto, el farmacéutico puede contribuir al uso seguro de los medicamentos y a la mejora de la atención integral. El objetivo de este estudio fue recopilar y sintetizar la evidencia sobre la asistencia farmacéutica dirigida a la población trans en los contextos nacional e internacional. Se trata de una revisión de alcance, realizada de acuerdo con las recomendaciones del Instituto Joanna Briggs (JBI) y de PRISMA-ScR. Se incluyeron estudios primarios publicados entre 2020 y 2026, periodo definido por tratarse de un campo emergente cuya producción científica se ha intensificado en los últimos años. Las búsquedas se realizaron en las bases de datos Medline (PubMed), LILACS y SciELO, así como en la literatura gris, a través de Google Académico y el Portal de Revistas de CAPES. Se incluyeron 12 estudios, que pusieron de manifiesto lagunas en la formación de los farmacéuticos, barreras de acceso a los servicios y a los medicamentos, inexactitudes en los registros de identidad de género y limitaciones en la organización de la atención. A pesar de ello, los estudios señalaron la posible contribución del farmacéutico a la seguridad de los medicamentos y a la atención integral. No obstante, las pruebas siguen siendo limitadas y predominantemente observacionales y cualitativas. Cabe destacar la necesidad de ampliar la cualificación profesional y desarrollar estudios más sólidos que evalúen los impactos clínicos, asistenciales y económicos de las intervenciones farmacéuticas.

PALABRAS CLAVE: *Salud Pública. Personas Transgénero. Transexuales. Servicios Farmacéuticos. Atención Farmacéutica.*

INTRODUCTION

Historically, transgender, travesti, and gender-diverse populations have experienced significant inequities in access to healthcare services resulting from social, institutional, and structural factors that compromise comprehensive care. Among the main challenges reported are discrimination within healthcare settings, an insufficient number of healthcare professionals adequately trained to address their specific needs, limited access to gender-affirming hormone

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therapy, and fragmented healthcare delivery (Johnson; Logan; Hill, 2025; Montaner-Abasolo *et al.*, 2023). These barriers contribute to poorer health outcomes and reinforce the need for strategies that promote more inclusive, person-centered, and compassionate care tailored to the needs of this population.

In Brazil, important advances have been achieved through the implementation of the Gender-Affirming Process within the Brazilian Unified Health System (Sistema Único de Saúde [SUS]), expanding access to specialized healthcare services for transgender individuals. Nevertheless, the organization of care continues to face challenges related to the availability of healthcare professionals, the qualifications of multidisciplinary teams, and the integration of practices aimed at the continuous management of pharmacotherapy (Augusto, 2021; de Souza Gonçalves; Glass; Soares, 2026). In this context, gender-affirming hormone therapy plays a central role in the gender transition process and requires systematic clinical and laboratory monitoring to ensure its effectiveness and safety (Stanger *et al.*, 2024; Tran *et al*., 2021).

Pharmaceutical services have strategic potential to improve healthcare for transgender populations. Pharmacists can contribute through pharmacotherapeutic follow-up, the identification and resolution of medication-related problems, monitoring of adverse events, promotion of treatment adherence, and health education (Stanger *et al.*, 2024; Lima Silva *et al.*, 2024). Furthermore, their integration into multidisciplinary healthcare teams supports the development of individualized therapeutic plans and contributes to the rational use of medications (Gomes *et al.*, 2026; Miller *et al.*, 2023). Despite this potential, recent studies demonstrate that pharmacists' involvement in the care of transgender populations remains limited by gaps in professional education, the lack of specific clinical protocols, and the limited integration of pharmacists into specialized healthcare services (Tran *et al*., 2021; Augusto, 2021).

In both national and international settings, studies conducted in specialized outpatient clinics have reported high levels of patient satisfaction with pharmacotherapeutic follow-up, potential contributions to safer access to gender-affirming hormone therapy, and strengthened multidisciplinary care (Calandra *et al.*, 2024; Lima Silva *et al*., 2024; Gomes *et al.,* 2026).

Despite growing interest in the topic, evidence related to the role of pharmacists in the care of the transgender population remains scattered throughout the literature, covering different care settings, populations, and models of care. Furthermore, there are still few systematic reviews that synthesize and organize the existing knowledge on pharmacists' contributions to health promotion, pharmacotherapy monitoring, and support for gender-affirming hormone therapy.

Given this context, the question that prompted this review was: What evidence is available regarding pharmaceutical services for transgender individuals in national and international

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healthcare settings? Thus, the objective of this review was to map and synthesize evidence on the role of pharmacists in the care of the transgender population, identifying the main models of care, interventions developed, challenges encountered, and contributions to health promotion and the safe use of medications.

METHODOLOGY

This scoping review was conducted based on the methodology proposed in Chapter 11 of the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis (Peters et al., 2020), with the aim of mapping and synthesizing the available evidence on pharmaceutical services for transgender individuals in national and international healthcare contexts. Scoping reviews are designed to map key concepts, types of evidence, and knowledge gaps related to an exploratory research question by systematically examining the existing literature (Peters *et al*., 2020).

The review was conducted in accordance with the methodological guidance of the Joanna Briggs Institute (JBI). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist was also used to guide the reporting of the review (Tricco *et al.,* 2018). This review was prospectively registered on the Open Science Framework (OSF) and assigned the DOI: 10.17605/OSF.IO/ZJWSY (Pinheiro; Soler; Siqueira, 2026).

The Population, Concept, and Context (PCC) framework was used to develop the review question, in which P represents the study population, C the concept under investigation, and C the context. The population consisted of transgender individuals, the concept encompassed pharmaceutical services, and the context referred to national and international healthcare settings. Based on this framework, the following review question was formulated: What evidence is available regarding pharmaceutical services for transgender individuals in national and international healthcare settings?

During the search strategy development phase, tests were conducted using different combinations of descriptors and synonyms. However, it was found that including a larger number of terms did not increase the retrieval of eligible studies, likely due to the limited scientific output on the topic and the heterogeneity in the indexing of the studies. Consequently, more targeted search strategies were adopted, capable of retrieving the relevant studies identified while preserving the sensitivity and reproducibility of the review.

Based on the review question, a search strategy was developed using the terms “Transgender Persons,” “Pharmaceutical Services,” and “Pharmacists” for the searches

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conducted in MEDLINE (PubMed) and LILACS. In SciELO, the search strategy was adapted using the Portuguese terms “Pessoas Transgênero,” “Assistência Farmacêutica,” and “Farmacêutico.” The Boolean operator “OR” was used to combine terms related to pharmaceutical services and pharmacists, while “AND” was used to combine these terms with the transgender population concept. The search strategy was adapted according to the characteristics of each database, as shown in Table 1.

Table 1. Search Strategies and Keywords Used

Information source	Search strategy and terms used (DeCS/MeSH)	Number of results found
LILACS	(Transgender persons AND (Pharmaceutical Services OR pharmacist))	56
MEDLINE (PubMed)	(Transgender persons AND (Pharmaceutical Services OR pharmacist))	64
SciELO	(Pessoas Transgênero AND (Assistência Farmacêutica OR Farmacêutico))	36
CAPES Periodicals Portal	(Transgender persons AND (Pharmaceutical Services OR pharmacist))	11
Google Scholar	Assistência farmacêutica para pessoas trans	First 120 results screened; 22 potentially relevant records selected

Source: Authors’ own elaboration based on the studies included in the review (2026).

In addition, complementary searches were conducted in the gray literature using Google Scholar and the CAPES Periodicals Portal. In Google Scholar, the search expression “Assistência farmacêutica para pessoas trans” was used without Boolean operators. This strategy was defined after testing different combinations of terms, during which more complex search strategies did not increase the retrieval of potentially eligible publications. Therefore, a simplified search strategy was adopted to preserve the sensitivity of the gray literature search.

For both the electronic databases and the gray literature, the only filter applied was the publication period.

We included primary studies addressing pharmaceutical services for transgender people, including studies published as conference abstracts when they reported original data relevant to the research question. Eligible studies were published between January 1, 2020, and June 30, 2026, in Portuguese, English, or Spanish. This time frame was chosen because this is an

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emerging field of research in which scientific output has intensified in recent years. This approach allowed us to map the most recent evidence on pharmaceutical services for the transgender population, including current care practices and recommendations. The searches were conducted between June 19 and July 5, 2026. Given the limited number of studies on this topic, studies involving the broader LGBTQIAPN+ population were included when they presented specific analyses or findings pertaining to transgender, travesti, or gender-diverse individuals, regardless of whether these populations constituted the entire study sample. Review articles, editorials, letters to the editor, commentaries, review protocols, and studies that did not present primary data related to the subject of the review were excluded.

For the screening of studies retrieved from the electronic databases, a separate file was created for each database and subsequently imported into the *Rayyan QCRI* platform. In Google Scholar, due to the large number of results retrieved, the first 120 records displayed by the platform were examined. An initial screening of titles was conducted based on their relevance to the research question and the previously established eligibility criteria. This step was performed before the records were exported to *Rayyan*, and only potentially relevant records identified during this initial screening were imported into the platform for subsequent stages of the selection process.

After duplicate records were removed, study selection was conducted in two stages: first, by screening titles and abstracts, followed by full-text assessment. This process was performed independently by two reviewers, with any disagreements resolved by a third reviewer. The study selection process was reported using the *PRISMA-ScR* flow diagram.

The data extraction spreadsheet included information on authorship, year of publication, study objective, methodology, and main findings. The instrument was reviewed by the reviewers before the final data extraction; however, no formal pilot testing was conducted. The information was organized according to the guiding question, allowing for a synthesis of the knowledge on the topic. The data summary was presented in tables created in *Microsoft Word*®.

Regarding ethical considerations, this study was based exclusively on secondary data obtained from publicly available sources and did not involve human participants. Therefore, ethics committee approval and registration in the Brazilian Plataforma Brasil were not required.

RESULTS

The literature search identified 156 records from the electronic databases: LILACS (n=56), MEDLINE/PubMed (n=64), and SciELO (n=36). After the removal of 40 duplicate records,

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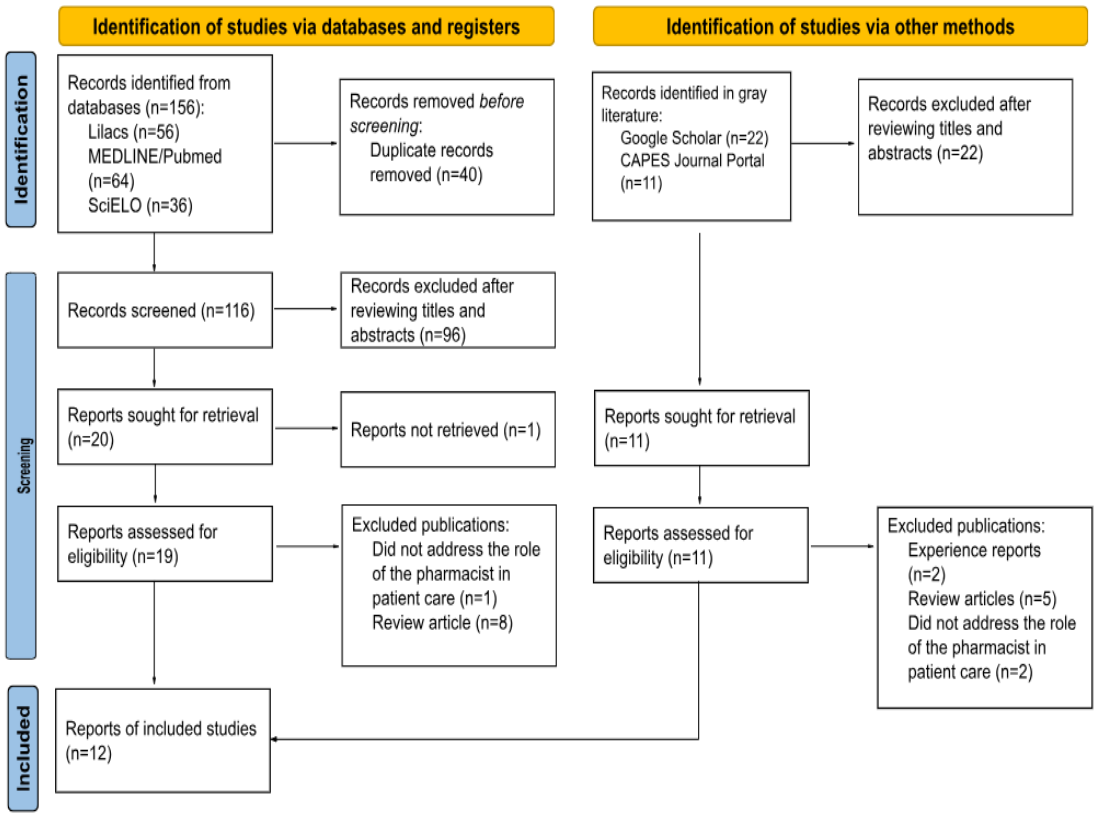
116 records remained for screening, of which 96 were excluded after title and abstract screening. Subsequently, 20 reports were sought for retrieval; one could not be retrieved, resulting in 19 reports assessed for eligibility. Of these, one was excluded because it did not address the role of pharmacists in the care of transgender individuals, and eight were excluded because they were review articles.

The gray literature search identified 33 additional records from Google Scholar (n=22) and the CAPES Periodicals Portal (n=11). Of these, 22 were excluded after title and abstract screening, and 11 reports were assessed for eligibility. Nine were subsequently excluded: two experience reports, five review articles, and two that did not address the role of pharmacists in the care of transgender individuals.

Overall, 12 studies were included in the final review, comprising 10 identified through electronic databases and two through gray literature sources. The study selection process is presented in the PRISMA-ScR flow diagram (Figure 1).

Figure 1. *PRISMA-ScR* flowchart of the study selection process



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Source: Authors' own elaboration based on the studies included in the review (2026).

It should be noted that the studies employ different types of methodologies, with cross-sectional and qualitative observational studies predominating. Regarding the population, two main groups are represented: transgender people, travestis, and gender-diverse individuals, as well as pharmacists working in different professional practice settings. Among service users, young adults predominate—often in situations of social vulnerability—who are receiving gender-affirming hormone therapy and are treated at specialized outpatient clinics. Among the professionals, the studies involved hospital, community, and clinical pharmacists, as well as those working within the Unified Health System, with varying levels of experience and training regarding the health of the transgender population. A summary of the studies, including their objectives and methodologies, is presented in Table 2.

Table 2. Characterization of the studies by title, objective, and methodology

Author/Year	Title	Objective	Methodology
Tran *et al.*, 2021.	Pharmacists' perceptions and preparedness regarding gender-affirming hormone therapy.	To assess pharmacists' preparedness to provide care to transgender individuals by comparing the perceptions of those who have received formal training in gender-affirming therapy with those who have not received specific training.	An online cross-sectional study conducted with pharmacists in the United States. Participants anonymously completed a questionnaire about their perceived readiness to serve transgender individuals and indicated whether they had received formal training in gender-affirming therapy. The responses were compared between pharmacists with and without specific training in this area.
Augusto, 2021.	Profile of services and drug prescriptions for hormones for transgender people and travestis in the state of Rio Grande do Sul.	To analyze the profile of gender-affirming care, specifically regarding pharmacological treatment, provided at specialized outpatient clinics for transgender people and travestis in the state of Rio Grande do Sul.	Exploratory qualitative study. Data were collected using a questionnaire developed and administered to key informants from each of the health services that provide care to travestis and transgender

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			individuals in the state of Rio Grande do Sul.
Montaner-Abasolo *et al.,* 2023.	Evaluation of the focus group with trans people carried out in the project "Equality and non-discrimination in pharmaceutical services for transsexual people in Spain. Preparation of a white paper".	To evaluate the use of a focus group with transgender people in the context of the project “Equality and Non-Discrimination in Pharmaceutical Services for Transgender People in Spain”, with the aim of informing the development of a white paper to improve the quality of pharmaceutical services.	A qualitative study using the focus group technique. This methodology was employed to explore the perceptions, experiences, and needs of transgender individuals regarding pharmaceutical services.
Miller *et al*., 2023.	BreatheOut: Development and implementation of a pharmacist-led, culturally tailored smoking cessation program for transgender and gender diverse patients.	Develop and implement a smoking cessation program tailored to the needs of the transgender population, highlighting the role of pharmacists in interdisciplinary care.	The program was developed as a pharmacist-led smoking cessation intervention for transgender individuals. Implemented in an outpatient setting, the program emphasizes cultural aspects of health care and includes the provision of pharmacotherapy for smoking cessation in accordance with current clinical guidelines.
Perry; DiPietro Mager, 2023.	Ohio community pharmacists’ provision of inclusive care for transgender and gender-diverse patients.	To assess community pharmacists’ knowledge of a clinical practice guideline, by evaluating the extent to which their professional practices align with the proposed recommendations and their interest in	A cross-sectional study using an anonymous questionnaire, developed based on the guidelines’ recommendations and approved by an ethics committee. The questionnaire was sent electronically to 700

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		receiving additional training on the topic.	community pharmacists randomly selected in the state of Ohio, with an incentive for participation offered in the form of a charitable donation.
Calandra *et al*., 2024.	Evaluation of services provided in a gender health clinic.	To describe the services provided and the level of patient satisfaction at an Interdisciplinary Gender Health Clinic that serves transgender and gender-diverse patients.	A retrospective study based on an analysis of medical records from the clinic's first six months of operation, supplemented by anonymous questionnaires to assess patient satisfaction.
Lima Silva *et al.,* 2024.	Quality of life and level of satisfaction with pharmacotherapeutic follow-up in a transgender health center in Brazil.	The study aimed to describe the quality of life and assess the satisfaction of transgender individuals with the pharmacotherapy care provided at a clinic specializing in the gender transition process in northeastern Brazil.	A cross-sectional, descriptive, and quantitative study conducted at a specialized outpatient clinic for transgender individuals. The study assessed sociodemographic and medication profiles, quality of life using the WHOQOL-BREF, and satisfaction with pharmaceutical services using the Pharmacy Services Satisfaction Questionnaire (QSSF).
Stanger *et al.,* 2024.	Integration of clinical pharmacists to assist with medication surveillance for patients receiving gender-affirming hormone therapy in a community ambulatory setting within the United States.	To describe the development and implementation of a gender-affirming care protocol that integrated clinical pharmacists into the multidisciplinary team at a community outpatient clinic, with the aim of improving care for people with diverse gender identities.	A descriptive study reporting on the development and implementation of a gender-affirming care protocol at a community outpatient clinic in the United States. The protocol integrated clinical pharmacists into the multidisciplinary team to conduct surveillance and monitoring of pharmacotherapy for patients receiving gender-

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			affirming hormone therapy.
Johnson; Logan; Hill, 2025.	Pharmacy barriers for transgender and gender diverse young adults.	To identify the experiences and barriers faced by transgender and gender-diverse people in pharmacies.	A qualitative study conducted with transgender young adults (ages 18–29) in the United States. Data were collected through semistructured focus groups, which explored barriers to accessing medications and experiences with pharmacists. The interviews were recorded, transcribed, and analyzed thematically to identify recurring themes.
Havens *et al.,* 2025.	Prioritizing patient value regarding pharmacy culture in a LGBTQ+-focused pharmacy.	To identify and prioritize the aspects of the organizational culture of community pharmacies that the LGBTQ+ population considers most important, and to compare the priorities of transgender and gender-diverse (TGD) individuals with those of non-transgender individuals.	A cross-sectional study in community pharmacies serving the LGBTQ+ population in Ohio. Participants assessed the importance of 17 pharmaceutical services, classified as general or inclusive, using Likert scales and ranking questions. In addition, qualitative perceptions were collected through open-ended questions. The survey was disseminated to pharmacy users via QR codes made available at service counters.
de Souza Gonçalves; Glass; Soares, 2026.	Pharmacists' professional and service qualifications for the care of Trans, Travesti, and Gender-	To analyze the professional and patient-care qualifications of pharmacists in	A qualitative study based on Grounded Theory, conducted with pharmacists working in primary and secondary

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	Diverse people in southern Brazil: a grounded theory study.	providing care to transgender, travestis, and gender-diverse populations within the Unified Health System (SUS) in a capital city in southern Brazil.	care within the Brazilian Unified Health System (SUS). Participants were selected using theoretical sampling, and data were collected through semi-structured interviews that were recorded and transcribed.
Gomes *et al.*, 2026.	Sociodemographic profile and use of hormone therapy among trans people receiving care at the gender transition clinic in Maceió, Alagoas	To characterize the sociodemographic profile and patterns of hormone therapy use among transgender individuals receiving pharmaceutical services at the gender transition outpatient clinic of a Family Health Clinic in Maceió, Alagoas.	A retrospective descriptive study based on pharmacotherapy monitoring records of transgender individuals treated at a specialized outpatient clinic. Sociodemographic and pharmacotherapy variables obtained through a pharmaceutical history protocol and patient care records were analyzed.

Source: Authors' own elaboration based on the studies included in the review (2026).

The findings indicate that the scientific literature on pharmaceutical services for transgender populations has primarily focused on evaluating pharmacists' competencies, barriers to accessing healthcare services, and strategies to improve the quality of care. Across the included studies, pharmacists consistently recognized the importance of their role in providing care for transgender individuals. However, they also reported limitations related to undergraduate education, the lack of specialized training, and insufficient institutional support for the implementation of inclusive healthcare practices.

Regarding transgender individuals, the studies identified recurring barriers to accessing pharmaceutical services, including difficulties in obtaining medications, inadequacies in health information systems related to gender identity, healthcare professionals' limited knowledge of gender-affirming hormone therapy, and the lack of welcoming and inclusive healthcare environments. Respect for patients' chosen names, protection of confidentiality, the availability of gender-neutral restrooms, and the provision of care free from discrimination were consistently identified as essential factors for ensuring high-quality care.

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The findings suggest that the inclusion of pharmacists in multidisciplinary teams may contribute to expanding safe access to hormone therapy, pharmacotherapy monitoring, identification of medication-related problems, and comprehensive care. Studies conducted in Brazil and the United States have reported positive findings associated with pharmacotherapy monitoring, including high levels of user satisfaction and potential contributions to the safety of hormone therapy. See Table 3 for a summary of the findings.

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Table 3. Summary of the findings

Author/Year	Title	Results/Outcomes
Tran *et al.,* 2021.	Pharmacists' perceptions and preparedness regarding gender-affirming hormone therapy.	The findings demonstrated that most pharmacists did not consider themselves adequately prepared to provide care for transgender individuals, with formal education in gender-affirming therapy being uncommon during undergraduate training or after professional qualification. In addition, approximately 40% of participants reported feeling unprepared to counsel patients or provide clinical recommendations related to gender-affirming hormone therapy. In contrast, pharmacists who had received specialized training reported greater confidence and perceived preparedness to care for this population.
Augusto, 2021.	Profile of services and drug prescriptions for hormones for transgender people and travestis in the state of Rio Grande do Sul.	The study investigated the patterns of medication prescribing, as well as the laboratory tests requested for pharmacotherapy monitoring within healthcare services. The findings showed that multidisciplinary teams were predominantly composed of physicians, followed by nursing professionals. The absence of pharmacists from these teams was also evident, despite their important role in providing medication counseling and minimizing medication-related harm.
Montaner-Abasolo *et al.,* 2023.	Evaluation of the focus group with trans people carried out in the project "Equality and non-discrimination in pharmaceutical services for transsexual people in Spain. Preparation of a white paper".	The study showed that transgender people have a positive perception of the compassionate care provided by pharmacists, but they identify significant gaps in the technical aspects of pharmaceutical services, particularly regarding hormone therapy, off-label use, drug interactions, drug shortages, confidentiality, and personalized care.
Miller *et al*., 2023.	BreatheOut: Development and implementation of a pharmacist-led, culturally tailored smoking cessation program for transgender and gender diverse patients.	The program proved to be feasible when led by clinical pharmacists or pharmacy residents, showing potential for expansion. Preliminary results indicated that culturally adapted approaches may promote smoking cessation among transgender and gender-diverse individuals.

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Perry; DiPietro Mager, 2023.	Ohio community pharmacists' provision of inclusive care for transgender and gender-diverse patients.	Of the participating pharmacists, only 10% were familiar with the guide. Although most demonstrated familiarity with basic terms related to gender diversity, there was less understanding of more complex concepts, such as intersectionality. The most commonly adopted practices included recording the social name and including topics related to the transgender population in staff training. However, fewer than half of the pharmacies had adequate systems in place for managing gender-related information. Despite these limitations, participants expressed an interest in expanding their knowledge on the subject.
Calandra *et al.*, 2024.	Evaluation of services provided in a gender health clinic.	Among the 23 patients evaluated, most were undergoing hormone therapy and received health counseling. Some of the patients had contact with pharmacists, and all reported high satisfaction with the service, especially regarding the warm welcome and the quality of care provided.
Lima Silva *et al.,* 2024.	Quality of life and level of satisfaction with pharmacotherapeutic follow-up in a transgender health center in Brazil.	Among the 21 transgender individuals who responded to the QSSF, a high level of satisfaction with pharmacotherapy follow-up was observed. Most items received the highest rating, and the overall average score was above 4 points, indicating full satisfaction with the service among the sample. The lowest averages were found in questions directly related to pharmaceutical practice, because some users were still about to begin hormone therapy and, therefore, were unable to evaluate the professional's care in these areas.
Stanger *et al.,* 2024.	Integration of clinical pharmacists to assist with medication surveillance for patients receiving gender-affirming hormone therapy in a community ambulatory setting within the United States.	The implementation of the protocol enabled the effective integration of clinical pharmacists into the gender-affirming care team, promoting systematic monitoring of hormone therapy, medication surveillance, identification of potential pharmacotherapeutic problems, and strengthening of multidisciplinary care for transgender people.
Johnson; Logan; Hill, 2025.	Pharmacy barriers for transgender and gender diverse young adults.	The study found that transgender people face barriers to access and care at pharmacies. The authors emphasize the need for staff training, the development of structural capacity, and improvements in the collection of gender-related data to promote more equitable and inclusive pharmaceutical services.

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Havens *et al.,* 2025.	Prioritizing patient value regarding pharmacy culture in a LGBTQ+-focused pharmacy.	A total of 273 questionnaires were analyzed. Among general pharmaceutical services, assistance with reducing medication costs was considered the most important by participants. With regard to inclusive services, the correct use of the patient's name was the aspect most highly valued. Transgender individuals placed greater importance on the availability of gender-neutral restrooms and access to supplies for administering injectable medications.
de Souza Gonçalves; Glass; Soares, 2026.	Pharmacists' professional and service qualifications for the care of Trans, Travesti, and Gender-Diverse people in southern Brazil: a grounded theory study.	Pharmacists reported limitations in their training regarding care for the transgender, travestis, and gender-diverse populations, which they attributed to a lack of specific content in undergraduate, graduate, and continuing education programs. Barriers related to cisheteronormative standards, regulatory restrictions, and limited experience with this population were identified. The main difficulties involved knowledge gaps, inadequate communication, limited interprofessional collaboration, and a practice centered on dispensing medications. As a result, many professionals felt unprepared to provide care, often referring patients to specialized services. On the other hand, exposure to the experiences and narratives of transgender people fostered more welcoming, respectful, and high-quality care.
Gomes *et al.*, 2026.	Sociodemographic profile and use of hormone therapy among trans people receiving care at the gender transition clinic in Maceió, Alagoas	The results showed that the population served was predominantly young, low-income, and residing in socially vulnerable areas. The inclusion of pharmacists in the multidisciplinary team helped expand access to hormone therapy in a safe and monitored manner, promoting more humane, effective care centered on users' needs. These findings reinforce the importance of the pharmacist's role as a strategy for improving comprehensive care and promoting equitable access to hormone therapy within the SUS.

Source: Authors' own elaboration based on the studies included in the review (2026).

DISCUSSION

The analysis of the 12 included studies shows that the scientific literature on pharmaceutical services for transgender, travesti, and gender-diverse individuals remains limited and methodologically heterogeneous. Despite differences across the contexts investigated,

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convergence is observed in three main areas: insufficient training of pharmacists to address the specific needs of this population; persistent barriers to accessing pharmaceutical services and receiving inclusive and welcoming care; and the potential role of pharmacists in monitoring gender-affirming hormone therapy and delivering other health promotion interventions. However, the studies differ in the emphasis placed on pharmacists' roles, reflecting the characteristics of the different healthcare systems and care settings investigated.

In the United States, studies focus primarily on professional competencies, user experiences in community pharmacies, and the implementation of clinical services. Tran *et al.* (2021) and Perry and DiPietro Mager (2023) identified gaps in pharmacists' preparedness to care for transgender and gender-diverse individuals, although pharmacists who received specific training demonstrated greater confidence in providing guidance on gender-affirming hormone therapy. From the users' perspective, Johnson, Logan, and Hill (2025) and Havens *et al.*(2025) demonstrated that barriers extend beyond pharmacotherapeutic knowledge and include the inappropriate use of names and pronouns, limitations in gender identity registration systems, medication costs, and structural inadequacies within pharmacy settings. Thus, these studies converge in indicating that the quality of care depends both on clinical competencies and on organizational changes capable of creating inclusive environments.

Also in the United States, Miller *et al.* (2023), Stanger *et al.* (2024), and Calandra *et al.* (2024) offer a different perspective by addressing experiences with the implementation or evaluation of services. The BreatheOut program demonstrated the feasibility of a culturally tailored, pharmacist-led smoking cessation intervention, expanding pharmacists' scope of practice beyond medication dispensing (Miller *et al.*, 2023). Stanger *et al.* (2024), in turn, described the integration of clinical pharmacists into the monitoring of gender-affirming hormone therapy, while Calandra *et al.*(2024) identified high levels of patient satisfaction at an interdisciplinary gender health clinic. Although these results support the expansion of pharmacists' scope of practice, most of the experiences described were conducted in specialized settings or services specifically structured to care for transgender individuals, which may overestimate the acceptability and feasibility of these interventions compared with general healthcare settings.

In Spain, Montaner-Abasolo *et al.* (2023) present a perspective focused directly on the experiences of transgender individuals, highlighting needs related to gender-affirming hormone therapy, off-label medication use, drug interactions, medication shortages, confidentiality, and individualized care. Although these findings are similar to the barriers identified in the United States, the study particularly highlights community pharmacies as accessible settings for

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counseling and support. The differences between countries therefore suggest that pharmacists' scope of practice is influenced by the organization of healthcare systems, professional regulations, access to medications, and the way healthcare services for transgender populations are structured.

In Brazil, studies reveal specific issues related to the organization of the Brazilian Unified Health System (Sistema Único de Saúde [SUS]) and to social and territorial inequalities. De Souza Gonçalves, Glass, and Soares (2026) identified gaps in pharmacists' training in primary and secondary care, as well as regulatory barriers, communication difficulties, and practices that remain overly focused on medication dispensing. Augusto (2021), in characterizing gender-affirming hormone therapy services in Rio Grande do Sul, observed limited involvement of pharmacists in healthcare teams, highlighting a gap in the multidisciplinary organization of care. In contrast, Lima Silva *et al.* (2024) and Gomes *et al.*(2026), in specialized services in Northeastern Brazil, reported favorable outcomes regarding pharmacist participation, including high satisfaction with pharmacotherapeutic follow-up and a potential contribution to safe access to gender-affirming hormone therapy. This apparent discrepancy may reflect differences between services in which pharmaceutical services are already integrated and those in which pharmacists' participation remains limited, as well as existing regional inequalities within the Brazilian healthcare system itself.

Comparisons between countries should, however, be interpreted with caution. The United States, Spain, and Brazil have different models of healthcare financing, access to medications, organization of primary care, regulation of pharmaceutical practice, and structuring of healthcare services for transgender populations. Consequently, interventions considered feasible in specialized U.S. clinics or Spanish community pharmacies cannot be directly extrapolated to the SUS. Similarly, findings from specialized Brazilian outpatient clinics may not reflect the conditions encountered in Primary Health Care, where resources, professional training, and access to specialized teams may differ.

Another relevant aspect concerns the methodological limitations of the available body of evidence. Cross-sectional, descriptive, and qualitative studies, retrospective analyses, and implementation reports predominate, generally involving small samples and being conducted within a single service or region. Although these study designs are appropriate for identifying experiences, barriers, perceptions, and the feasibility of services in a still-emerging field, they have limitations in establishing causal relationships or determining the effectiveness of pharmaceutical interventions. No robust experimental or comparative studies were identified that could demonstrate whether pharmacist involvement leads to better clinical outcomes, greater

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treatment adherence, fewer medication-related problems, or improved safety of gender-affirming hormone therapy compared with usual care. Therefore, positive findings regarding satisfaction or feasibility should not be interpreted as evidence of clinical effectiveness.

Also noteworthy is the lack of economic evaluations of pharmaceutical interventions. None of the studies analyzed made it possible to determine whether pharmacist involvement reduces costs, prevents avoidable use of healthcare services, or demonstrates a favorable cost-benefit ratio. This gap is particularly relevant for public healthcare systems such as the SUS, in which decisions regarding the implementation and expansion of services depend not only on acceptability and clinical benefits but also on their sustainability.

The concentration of research in specialized services constitutes another important limitation. Although these settings are fundamental for the development and initial evaluation of care practices, they tend to involve professionals who are more familiar with transgender health issues and structures that are better adapted to the needs of transgender populations. Consequently, the findings may not reflect the reality of conventional community pharmacies, general hospitals, or Primary Health Care settings. The scarcity of studies in Primary Health Care is particularly relevant given its role as the gateway to and coordinator of care within the SUS and its potential to expand access to pharmaceutical services across the country.

The composition of the populations studied also warrants caution. Although the studies use different terms to describe gender diversity, travestis and non-binary individuals are specifically underrepresented, making it difficult to determine whether their pharmacotherapeutic needs and experiences with healthcare services differ from those observed among other transgender groups. Grouping different identities into broad categories, such as LGBTQ+ or TGD, may also obscure intragroup inequalities and limit the ability to identify specific healthcare needs.

Furthermore, territorial, socioeconomic, and racial factors remain insufficiently explored. Gomes *et al.* (2026), for example, identified a predominantly young, low-income population living in socially vulnerable areas, suggesting that access to healthcare services and continuity of care may be influenced by factors extending beyond the pharmacotherapeutic dimension. However, the available body of evidence does not yet allow for an adequate understanding of how income, race/skin color, geographic location, distance from specialized services, and other vulnerabilities intersect with gender identity to create barriers to accessing medications and pharmaceutical services. This gap is particularly significant in countries marked by substantial territorial and social inequalities, such as Brazil.

In summary, the studies converge in recognizing pharmacists' potential to promote medication safety, monitor gender-affirming hormone therapy, provide health education, and

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deliver more inclusive care. However, they also demonstrate that this role remains dependent on professional training, service organization, and the characteristics of healthcare systems. The available evidence is promising but remains insufficient to establish the clinical or economic effectiveness of pharmaceutical interventions. Prospective, comparative, and multicenter studies are needed, involving greater diversity of participants and healthcare settings, including Primary Health Care. Future research should also evaluate clinical, humanistic, and economic outcomes and incorporate analyses of racial, socioeconomic, and territorial inequalities, thereby enabling a better understanding not only of whether pharmaceutical services can benefit transgender, travesti, and gender-diverse individuals, but also of the contexts, populations, and conditions under which these benefits can be achieved.

CONCLUSION

The review highlighted that pharmaceutical services can contribute to comprehensive care, medication safety, and access to gender-affirming hormone therapy, particularly through pharmacotherapy monitoring, the identification of medication-related problems, and practices centered on the needs of the transgender population. However, pharmaceutical practice remains limited by gaps in professional training, institutional barriers, and structural inadequacies in services.

Scientific output remains limited, with a predominance of observational and qualitative studies, which restricts the assessment of the clinical and care-related impacts of pharmaceutical interventions. Gaps were also identified regarding the existence of specific protocols and the organization of services for the care of the transgender population.

The findings reinforce the need for professional training, continuing education, clinical protocols, and more inclusive services that respect gender identity and the specific needs of this population. Further research is needed, with studies employing greater methodological rigor to evaluate the clinical, economic, and care-related outcomes of pharmaceutical practice in different contexts, particularly within the Unified Health System (Sistema Único de Saúde [SUS]).

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