

REVIEW

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Social and programmatic vulnerability in the context of transgender people's health: a scoping review of scientific evidence from Brazil

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Abstract

Background Most transgender people face different conditions of health vulnerability on a daily basis. In the Brazilian context, no research review has been found on such situations in the light of the theoretical conceptualization of multidimensional vulnerability. This research aimed to identify and analyze components of social and/or programmatic vulnerability that interfere with access to health care for trans people in Brazil.

Methods The scoping review followed the JBI Manual and the PRISMA-ScR list. Brazilian studies published in any language, in the period 2019–April 2023, in the NCBI/PubMed, Web of Science, EMBASE, Scopus, SciELO, and LILACS databases were selected. The inclusion criteria included: original research with a sample of transgender people aged 18 years and over; and research contemplating conditions of social and/or programmatic vulnerability. Three reviewers independently selected the articles. The extracted and mapped data included components of these dimensions, according to the theoretical framework, as well as characteristics of the studies, for the synthesis of the descriptive analysis.

Results A total of 46 studies were included. Social and programmatic vulnerability components were present in 67% of the studies. Among the main findings, the social dimension included discrimination, situations of violence in different contexts and social exclusion; prejudice and school dropout, homelessness, informal work and precarious income; and harmful use of alcohol and/or other drugs. The programmatic dimension encompassed disrespect for the use of the social name and institutional discrimination; hormone therapy without professional monitoring and scarcity of specialized services; lack of integration between Primary Health Care (PHC) and specialized care and insufficient PHC involvement; distortions between what is contained in public health policies and the practice in the services. A higher percentage (61%) of studies with trans women and 7% with trans men were observed; inequalities in regional distribution; predominance of HIV and AIDS and mental health themes; and similar percentages in the various methodological approaches and publications in national and foreign journals.

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Conclusion The identified situations of vulnerability contribute mainly to supporting the formulation and implementation of new public policies in comprehensive health that are more comprehensive and inclusive, which mitigate the current social and health inequities.

Keywords Transgender people, Health vulnerability, Access to health care, Social vulnerability, Scoping review

Introduction

There is a multiplicity of factors that range from the need to guarantee the exercise of fundamental rights, such as health, education, housing, and work, to the recognition of gender self-determination, demonstrating how vulnerable transgender¹ (trans) people are [1]. They often face situations of vulnerability, which accentuate inequities and compromise the conditions of access to health [2]. Such access is not restricted to using services but also encompasses the continuity and effectiveness of care [3].

Vulnerability is not a peculiar characteristic of an individual or a group. People are not vulnerable, but they may be in a situation of vulnerability (or vulnerable by society and its institutions) in each circumstance [4, 5]. This process is dynamic and, at the same time, unique, under the different life histories inserted in the social, political, economic, cultural, and environmental contexts, among others [6].

The concept of vulnerability in the health field arose in connection with the story of the progression of the HIV epidemic in the 1990s [7, 8]. One of the perspectives of this new concept was to overcome persistent stigmas related to risk groups or behaviors that emerged during the epidemic.

Based on precursory references [7, 8], José Ricardo Ayres et al. [9–12] added a conceptual framework to the issue, emphasizing that vulnerability has three interdependent dimensions, namely: the individual dimension, which encompasses knowledge and information about health, which may (or may not) result in protection practices, depending on the intersubjective relationships constituted in the social sphere; 2) the social dimension, which comprises dynamic and relational aspects of life in society; and 3) the programmatic dimension, which comprises the performance of social and health institutions in the implementation of public policies.

¹ Transgender (trans) is a generic term that encompasses people who identify with a gender that differs from the one they were assigned at birth [113]. Trans people can describe themselves and use one or more terms from a wide variety, such as trans men, trans women, non-binary, agender and other different meanings [114]. In this review, we used the term “trans people” to refer to trans women and trans men – our study population. The trans women in this study include *travestis* and transsexual women who identify with the female gender by contesting the male gender assigned at birth. The term “travesti” precedes “transsexual” and is more frequent in Brazil and other Latin American countries [115]. The differences between *travestis* and transsexual women would be related to issues of political affirmation, without relevant divergences between them regarding the expression of their femininities, or about whether to perform genital surgery and hormone therapy [116].

The analysis of these dimensions can be applied to other health situations beyond the field of HIV and AIDS [4], to help understand how people find themselves vulnerable to not having access to health. In practice, when it comes to healthcare access for trans people, Brazilian studies [13–15] show challenges such as prejudice, discrimination and inadequate reception in services, lack of commitment from primary care, prevalence of a biomedical and specialized approach, pathologization of trans identities and underfunding of actions. In addition, other studies [16–18] have pointed to social exclusion, exposure to various forms of violence, and barriers to accessing education, housing, and the labor market. These factors attest to vulnerability in health, since they hamper access to care and, consequently, contribute to the process of physical and mental illness [19].

Since the Brazilian Federal Constitution of 1988 (CF/88) [20], regulated by subsequent legislation in the following years, health has become a fundamental right for everyone in the country, to be ensured by founding principles such as universal access, equity and comprehensive care. According to Paim [21], despite the significant progress made by the Brazilian Unified Health System (SUS), new and old political and economic challenges persist which hinder the universalization of the right to health.

As a result of social achievements, in 2011, the National Comprehensive Health Policy for Lesbians, Gays, Bisexuals, *Travestis* and Transsexuals (LGBT) was created, which has become a reference in recognizing the needs, demands, rights and conditions of vulnerability of this population [22]. In addition, specialized care for trans people has been established in the SUS [23, 24]. Nonetheless, current progress is still limited in terms of fully implementing these public policies.

Considering the persistent history of violations of fundamental rights, especially the right to health, it is essential to identify gaps in knowledge and to understand the different contexts of vulnerability that affect these populations. Such recognition, incorporated into the practices of managers, researchers and health professionals, would lead to the development of more inclusive strategies and actions.

In light of the above, a survey was carried out of reviews dealing with aspects of health that include trans population in Brazil [13, 25, 26]. It was also noted that some studies [27, 28], in other contexts, used the theoretical basis of multidimensional vulnerability presented

here. However, no specific scoping review on the trans people (trans women and trans men) was found in the databases searched, in the light of the theoretical conceptualization adopted in this review. This is the most used in Brazilian research [29].

Therefore, while understanding the importance of the individual dimension, this research aims to identify and analyze components of social and/or programmatic vulnerability that interfere with access to health care for trans people in Brazil, based on a mapping of the scientific evidence available on the country.

Methods

Type of study

This is a scoping review developed according to the recommendations of the JBI Manual for Evidence Synthesis [30], as well as the checklist of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) [31]. Based on these guidelines, the following stages were considered: definition of objective, research question and inclusion criteria; planning of the search strategy; search and selection of research evidence; data extraction; analysis and presentation of results; and synthesis of evidence according to the objective of the review, including the conclusions. The protocol for this review was registered in the Open Science Framework.

Defining the research question

The Population, Concept and Context (PCC) strategy was used, in accordance with the JBI protocol [30], to outline this guiding question: “What are the main components of social and/or programmatic vulnerability that interfere with health care for trans people in Brazil?”. To this end, the following components of the strategy were established: *Population* – trans people aged 18 or over; *Concept* – conditions of social and/or programmatic vulnerability; and *Context* – difficulties in accessing health care in Brazil.

Eligibility criteria

The criteria for inclusion in this review covered scientific articles published in any language and referring to the Brazilian context, such as: (a) original research with a sample of trans people aged 18 or over; and (b) research contemplating conditions of social and/or programmatic vulnerability.

The composition of programmatic vulnerability comprised any level of health care (primary or specialized, outpatient or inpatient). Considering the National LGBT Comprehensive Health Policy creation in 2011 as a reference, studies published from 2019 to April 2023 were included, i.e. those covering between 8 and 12 years since the establishment of this public policy, assuming that this is a reasonable interval to capture programmatic implementation challenges, without disregarding the social and political context of the period.

As for the exclusion criteria, articles that did not provide information in line with the PCC strategy were disregarded, as well as literature reviews, book chapters, editorials, opinion articles, essays, dossiers and experience reports. Studies whose data was not disaggregated by type of gender identity, which prevented the extraction of information on trans people, were also excluded.

Search strategies and information sources

Table 1 shows two search strategies that were adjusted according to the peculiarities of each database [see Additional File 1]. Depending on the database searched, descriptors from the Health Sciences Descriptors (DeCS), Medical Subject Headings (MeSH) or Embase Subject Headings (EMTREE) were used.

The search strategies were planned in a sequence of three phases. In the first, scientific articles were searched in the following databases: National Center for Biotechnology Information (NCBI/PubMed); Web of Science via the main collection (Clarivate Analytics); Excerpta Medica Database (EMBASE); Scopus; and Scientific Electronic Library Online (SciELO), via the journal portal of the Coordination for the Improvement of Higher Education Personnel (Capes) – with remote access from the Federated Academic Community (CAFe) and registration at the University of Brasilia (UnB) – as well as the Latin American and Caribbean Health Sciences Literature (LILACS), via the Virtual Health Library (BVS). In the second phase, a free search was carried out to check the gray literature published between 2019 and April 2023 on Google Scholar, in its first ten pages, which we consider the most relevant to the search result. Finally, in the third phase, a search of the references contained in the studies selected in the first phase was carried out, in order to identify additional sources.

Table 1 Search strategies with their respective descriptors

Strategy I	Strategy II
Transgender Persons, Transgender, Transgenders, Transsexual Persons, Transsexual, Transsexuals, <i>Travesti</i> , <i>Travestis</i> , Sexual and Gender Minorities, Health Care, Comprehensive Health Care, Integrality in Health, Health Services, Public Health Services, Public Health, Brazil	Transgender Persons, Transgender, Transgenders, Transsexual Persons, Transsexual Transexuals, <i>Travesti</i> , <i>Travestis</i> , Sexual and Gender Minorities, Vulnerability, Health Vulnerability, Social Vulnerability, Vulnerability Study, Brazil

Selection of studies

After identifying the studies, duplicate and ineligible articles were removed, based on their titles and abstracts imported into the Rayyan selection platform, produced by the Qatar Computing Research Institute (QCRI) [32]. In subsequent stages, three reviewers independently selected the articles, based on reading the titles, abstracts, and full texts, to avoid losses as much as possible and to establish more carefully which studies would be included in the review. In cases of disagreement in the selection process, a fourth reviewer took part in the process to build consensus among all the researchers.

Data extraction

The data extraction process was carried out by two reviewers using Microsoft Excel (<https://products.office.com/>), according to the form adapted and proposed by the JBI Manual [30].

Thus, the extracted and mapped data corresponds to: author(s); publication year; article title; journal of publication; study location; objectives and type of study; population and sample size; profile of diseases and conditions studied; and components of social and programmatic vulnerability, which represent the core of this analysis.

Summary of results

The results from the extracted data were presented in descriptive form and summarized in tables. The theoretical conceptualization of vulnerability [7–12] described in the introduction supported the analysis of the dimensions according to the adaptation of the following variables:

Social dimension: conditions of access to social rights, such as education, work and income, housing, health information, and communication; gender and race relations; stigma, prejudice, and discrimination; use of alcohol and/or other drugs in the social context.

Programmatic dimension: performance of health policies, programs, and actions; governance and governability; structure, organization, and access to the service network; health information and communication; multidisciplinary, interdisciplinary, and intersectoral performance; and professional bond with the people in care.

Ethical aspects

As this is a scoping review, the project does not require submission to the Research Ethics Committee. However, the methodological rigor recommended in international protocols for this type of research was observed.

Results

Figure 1 shows the process of study selection. Based on the search strategies in the six databases used, 1,432 articles were identified. Of these, 605 were duplicates

and 721 were ineligible for the review, totaling 1,326 studies excluded at this stage. For the selection by title and abstract, 106 articles remained, 45 of which were excluded. Of the 61 articles read in full, 15 were excluded, of which nine did not answer the research question, three included trans people outside the established age range and another three were divergent types of publication (two dossiers and one essay). Thus, 46 articles were included in the scoping review, published in 2019 ($n=10$), 2020 ($n=7$), 2021 ($n=12$), 2022 ($n=16$) and 2023 ($n=1$). No studies from the gray literature or additional sources were included, either because they did not meet the eligibility criteria or were duplicates.

Table 2 shows the 46 studies selected, distributed numerically according to main themes, gender identity, journals of publication, location and types of study. About 61% ($n=28$) of the articles were about trans women. Among the topics addressed, the following stand out: HIV and AIDS [34–40], mental health [41–46], and hormone therapy [47–49]. Only one research [35] also investigated chronic non-communicable diseases, such as systemic arterial hypertension, diabetes mellitus, dyslipidemias, and obesity.

One research [50] looked at black trans women and their experiences of prejudice and discrimination, while two other studies [51, 52] discussed the care for trans women living on the streets. Moreover, 28% of the studies ($n=13$) dealt with trans men and trans women, in which the themes of health itineraries²[53–59] and mental health [60–62] predominated. Only three studies specifically investigated trans men, on the themes of health itineraries [63, 64] and Sexually Transmitted Infections (STIs) [65].

As for the studies' locations³, 56% ($n=26$) were carried out only in the states of the Southeast region, of which 24% ($n=11$) in Rio de Janeiro [34, 35, 39, 45, 58, 66–71] 22% ($n=10$) in São Paulo [37, 40, 44, 49–51, 55, 72–74], and around 6% ($n=3$) in Minas Gerais [42, 52, 53]. The Northeast was the second most representative region (20%, $n=9$), with studies from the states of Bahia [47, 59, 75], Pernambuco [36, 57, 64], and Maranhão [54]. The Central-West region followed with six (13%) studies, carried out in Goiás [63, 76, 77], Distrito Federal [48, 60],

² The term “health itineraries” replaced “therapeutic itineraries” – the latter already well-known in public health. It is intended to criticize the pathologization of trans people's identities, so that the paths taken in search of health are considered broadly [71]. The concept of therapeutic itineraries encompasses the experiences and trajectories of people and their support networks in different care systems, in addition to understanding how health services meet and welcome their health needs [117].

³ The locations of the studies analyzed follow the political-administrative organization of Brazil, under the terms of the CF/88 [20]. This organization covers the Union, 26 States, the Federal District, and 5,570 Municipalities, all autonomous. Municipalities constitute the states, which are distributed in five geographic macro-regions (North, Northeast, Central West, South, and Southeast).

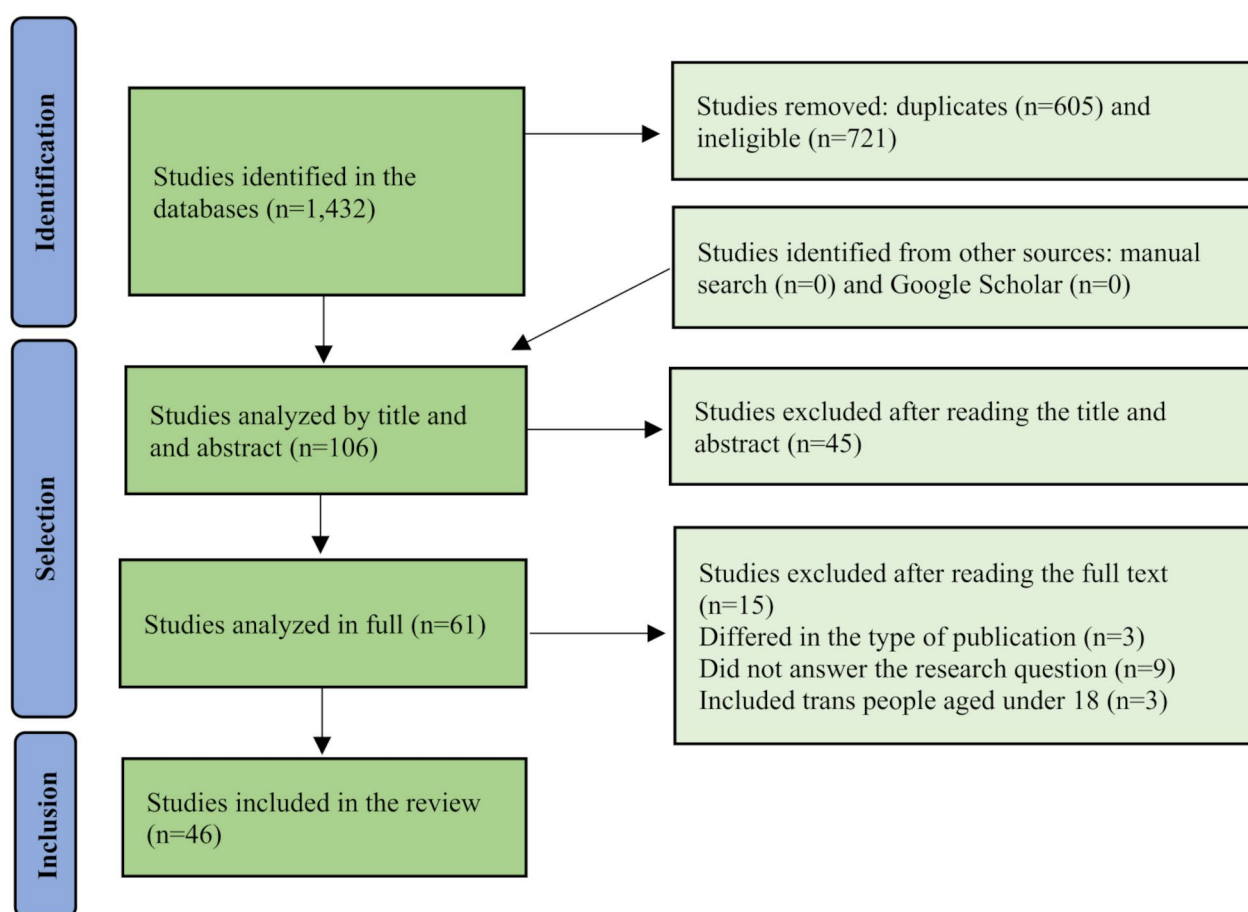


Fig. 1 Flowchart on the process of study selection for scoping review, adapted from PRISMA by Page et al. [33]

and Mato Grosso [56]. In the South, two surveys [65, 78] were conducted only in Rio Grande do Sul. No study has been carried out exclusively in the North. However, one article [79] included a state from each region of the country (Table 2).

With regard to the types of study, 52% ($n=24$) referred to quantitative research, 23 of which were cross-sectional studies and one a prospective cohort [35]. Another 21 investigations (46%) took a qualitative approach, including four ethnographic/anthropological studies [58, 63, 72, 80]. One survey [45] used mixed methods. In addition, the selected studies were published in the same proportion in national and foreign journals, distributed between 11 scientific journals from Brazil and 18 from abroad (Table 2).

Table 3 summarizes the conditions of social and programmatic vulnerability, according to the methodological description of this scoping review. Of the 46 studies included in the survey, 67% ($n=31$) showed conditions that fit both dimensions, while 20% ($n=9$) and 13% ($n=6$) had components only of social and programmatic vulnerability, respectively (data not shown in the table).

To synthesize similar elements extracted according to the variables established for each dimension, the components of social vulnerability were organized into: discrimination and social exclusion [36, 38, 40, 43, 45–47, 50–56, 58–62, 69, 70, 80]; barriers to accessing education [35–37, 44, 46, 48–50, 52–54, 57, 65, 68–71, 75, 77], work and income [35–37, 43, 44, 46–51, 53, 68, 69, 71, 72, 74, 75, 77, 80], and housing [40, 44, 49, 51–53]; harmful use of alcohol and/or other drugs [34, 35, 37, 40, 44, 47, 52, 65, 68, 74, 76, 77, 79].

Regarding discrimination and social exclusion, for example, qualitative research [50] found that prejudice and racial and gender discrimination are present daily among black trans women in São Paulo. In Rio de Janeiro, a cross-sectional study [71] found that trans women with more than one previous experience of racism were about four times more likely to suffer violence in public spaces. Another study conducted in three states in the Northeast Region showed a statistical association between moderately severe depressive disorder in trans women and a history of physical and/or sexual violence, lack of social support, and absence of family support in childhood [43].

Table 2 Characterization and number (*n*) of the studies selected for the scoping review (continued)

In the investigation carried out by Maria Lobato et al. [61] in Rio Grande do Sul and São Paulo with 103 trans people, about 77% of the participants reported having suffered social rejection due to their gender identity, and in about 95%, 80% and 75% of these cases, such situations were caused by family members, friends, and school-mates or respectively.

Concerning barriers to social rights in question, a qualitative study [45] highlighted that, in Rio de Janeiro, discrimination and violence interfere with the quality of life of trans women, in addition to restricting education and work opportunities, which contributes to sex work for the sake of survival. In different states of the country, research [37, 44, 46, 48, 49, 75] pointed to low schooling and precariousness of work and income, especially among trans women. Among the various reasons for such low education, are physical and verbal aggression within the educational institution, which strongly contributes to school dropout.

Lower schooling among trans women was identified as a risk factor associated with HIV infection in São Paulo [37]. In the study with trans people in Rio de Janeiro [71], *travestis* had lower incomes and lower levels of schooling, with 42.8% earning up to one minimum monthly wage and 26.9% not having completed elementary school.

By observing aspects of the use of alcohol and/or other drugs in the social context, the research by Ariadne Ribeiro et al. [40] with people who use drugs showed that homelessness was significantly higher (73.8%) in trans women, compared to cisgender men (47.5%) and cis women (41.4%) in São Paulo. It was also identified that the prevalence of crack use was higher in trans women (88.3%), compared to cis men (57.2%) and cis women (61.9%). In Rio de Janeiro, a study showed that trans women were more likely to use drugs sexually, suggesting that it may have an impact on vulnerability to HIV [79].

The findings related to conditions of programmatic vulnerability were categorized into: general challenges for access to health [34–36, 38–40, 44, 45, 50–52, 54–59, 63–65, 67, 68, 73, 75, 76, 79, 81]; specific challenges in the gender transition process [34, 35, 38, 47–50, 52–56, 59, 61, 63, 64, 67, 71–76, 78, 81]; disarticulation of the service network [36, 53, 59, 64, 73, 78]; gaps in public policies, programs and actions [42, 45, 50, 56, 58, 72, 75]. Inequalities in access to health information found in the studies [34, 39, 64, 79] permeate the two dimensions of vulnerability.

Regarding the general challenges of access to health, in one of the investigations carried out with trans women, 69% of them reported having suffered some discrimination in the Brazilian Public Health Care System (SUS) [75]. Many studies [36, 52, 54–57, 63, 64, 67, 73, 81] have highlighted the disrespect for the right to use one's social name in health services. Beo Leite et al. [38] revealed

that, of the total of 864 trans women, 87% had suffered discrimination during their lifetime and, of these, 71% and 59% were less likely to attend a medical appointment and undergo HIV testing in the last 12 months of the survey, compared to those who did not experience such suffering. More specifically in this population, barriers to access to immunization against hepatitis B [76], antiretroviral therapy [35], and HIV Pre-Exposure Prophylaxis (PrEP) [39] were also evidenced.

Also, in a survey of 763 trans women in São Paulo, about 20% sought treatment for mental health problems but did not receive it [44]. In Rio de Janeiro, young trans women were almost three times more likely to not access health care in HIV and AIDS services compared to adult trans women [34]. In turn, in Rio Grande do Sul, a study with 90 trans men indicated that approximately 30% had never been tested for STIs and, when tested, one-third of them were tested only for HIV [65].

Regarding challenges in the gender transition process, hormone therapy without proper professional monitoring was one of the issues presented, also considering the delay in accessing the procedure, precariousness, and the insufficient number of specialized services in the country [54, 56, 64, 67, 81]. In Rio de Janeiro, Sérgio Carrara et al. [71] observed that only 2% of *travestis* acquired hormones through medical prescription, compared to about 23% of transsexual women and 51% of trans men.

The pathologization of trans identities as a criterion for access to specialized health care was also verified in studies [56, 64, 67, 73, 78]. Besides, another difficulty observed in the studies [36, 39, 50, 53–55, 57, 58, 63, 64, 73] refers to the reception and care related to transgenderism, with impairments in the communication of important clinical issues and the connection of this population to the reference services.

In this scenario of challenges, the disarticulation in the health care network also stands out in qualitative studies [36, 53, 59, 64, 73, 78] of different realities in Brazil, when verifying the logic of care centered on specialized care and the lack of connection with PHC as a gateway, causing long waiting periods for care in reference services.

Regarding the gaps in public policies, qualitative research [50, 52, 56, 58, 63, 75, 78] ratified distortions between what is contained in the text of health policies and the practice in the services, recognizing that the implementation of a public policy does not guarantee immediate access to health care for trans people, given the existence of multifactorial issues that go beyond the structural problems of the SUS.

Discussion

The results of this review presented a comprehensive view of the scientific evidence in Brazil, regarding social and programmatic vulnerability situations that affect

Table 3 Conditions of social and programmatic vulnerability in the studies selected for the scoping review (continued)

Social vulnerability		Programmatic vulnerability	
Discrimination and social exclusion	<ul style="list-style-type: none">• Difficulty of social recognition of trans identities and lack of understanding of the differences between gender identity and sexual orientation• Stigma and discrimination, situations of violence at home, school, work, and other social contexts• Experiences of racism and violation of individual and social rights of black trans women• Reports of religious prejudice and repression within the family• Isolation, social exclusion and feeling of not belonging to any group	General challenges in health access	<ul style="list-style-type: none">• Disregard for the right to use a social name and other experiences of violence, prejudice and discrimination in health services• Unpreparedness of health professionals to meet the demands of trans people in public and private services• Inadequate reception and attention in services at all levels of health care• Lack of horizontalization and humanization in health services• Inadequate language for health care promotion• Stigma and associating STIs/HIV with trans living conditions• Use of clientelist practices to grant access to services• Difficulty in accessing mental health treatment, immunizations, testing for STIs, HIV and viral hepatitis, as well as prevention and treatment measures (e.g. PrEP, PEP, and antiretroviral therapy).• Lack of approach to sexual health in care• Physical and structural barriers in services, with a lack of organization of institutional spaces (e.g. waiting rooms) and flow of people (e.g. reports of discomfort at the fact that the place for assisting women and trans men is the same).
Access barriers and characteristics	Education	Specific challenges in the gender transition process	<ul style="list-style-type: none">• Precarity of specialized services and long waiting lines at SUS• Concentrated geographical distribution of specialized services• Lack of reception and resolution of general health problems in outpatient clinics• Doctors' lack of knowledge about hormones prescription and their correct dosage• Lack of links with service professionals to access hormone therapy and surgical procedures• Pathologization of trans identities as a parameter for accessing specialized care• Hormone therapy and other procedures without medical supervision• Limitations on the autonomy and active participation of trans people• Group therapy with little flexibility due to its compulsory nature• Comings and goings to various health institutions, insufficient financial support and unsatisfactory lodging conditions (e.g. hostel accommodation after surgery) in the event of treatment away from home• Reports of difficulties in the post-operative period, due to the techniques and procedures adopted• Problems accessing mental health care during the transsexualization process• Lack of local agreements in the state; in the absence of services authorized by the Ministry of Health, to guarantee hormones and post-operative supplies• Lack of regulations in clinical protocols and therapeutic guidelines on hormone use• Difficulties of access and care in private services, when sought mainly by trans men• Commoditization of trans bodies in the private sector
	Work and income		
	Housing		

Table 3 (continued)

Social vulnerability	
Harmful use of alcohol and/or other drugs	
Programmatic vulnerability	
Disarticulation of the service network	<ul style="list-style-type: none">• Lack of linkage to primary care, as a gateway for referral to specialized care• Difficulty in accessing primary care due to services being limited to office hours• Centralization of care in specialized services• Lack of adequate communication between primary care and specialized care• Segmentation of service provision and depersonalized care, with no involvement of primary care in health itineraries
	Gaps in public policies, programs and actions
<ul style="list-style-type: none">• Lack of intersectoral public policies for income generation, health care and public safety• Cases of police violence• Lack of interface between the family and the health service in comprehensive public health policies• Lack of speech therapy in the multi-professional team for the transsexualizing process (Ordinance No. 2,803/2013).• Lack of debate in health training on the needs and demands of trans people• Lack of implementation of the integral dimension of health care	
Inequality in access to information about gender transition process, HIV, and prevention measures such as PEP and PrEP	

trans people in the context of health. Both dimensions were identified together in the majority (67%) of the studies and, in 20% and 13% of the scientific articles, the conditions identified referred only to the social and programmatic components, respectively. The categories formed in the social dimension included: discrimination and social exclusion; barriers to access to education, housing, work, and income; and harmful use of alcohol and/or other drugs. In the programmatic dimension, the categories comprised: general challenges of access to health; specific challenges in the gender transition process; disarticulation of the service network; and gaps in public policies.

Other findings discussed below presented a general characterization picture concerning the number of scientific articles among the identity categories (trans women and trans men), places of study by state and region of the country, methodological approaches, publication journals, and health issues researched.

As for the social dimension of vulnerability, discrimination, and social exclusion were marked by different situations that increased oppression, violence, and illness in family, social, and institutional contexts. In another scenario, a study conducted in the United States (USA) with Asian American trans people showed the role of gender identity and other sociodemographic factors and their significant association with violence and discrimination. Also, the study revealed that family support regarding the recognition of gender identity operated as a protective element against discriminatory acts [82].

In Canada, research has expressed that black and indigenous trans and non-binary youth face disparities in health outcomes and experiences of violence and discrimination, compared to white trans and non-binary youth. All types of violence were significantly associated with a higher probability of abandonment of physical health care, self-mutilation, suicidal ideation, and suicide attempts [83].

The multiple layers of discrimination, such as racism, transphobia, and misogyny, make social bodies vulnerable and marginalized. The markers of race, ethnicity, social class, gender, and sexual orientation, among others, interact and collide with each other as a socially interconnected oppression complex [5]. These aspects encompass the concept of intersectionality, a term introduced by Kimberlé Crenshaw in the 1980s [84, 85], which seeks to analyze micro and macrosocial contexts and understand the occurrence of more than one form of oppression simultaneously, based on the overlapping of identities and social inequalities.

Barriers to access to education, housing, work, and income were pointed out in this review. Such challenges are also observed in other countries. In 2022, in the U.S. Trans Survey [86], among over 92,000 people

interviewed, including about 84,000 adults (18 years and older), 80% of adults and 60% of 16- and 17-year-olds interviewed who self-defined as trans people in middle and high school experienced prejudice, discrimination, and various forms of violence in the school environment. Of the total sample, 34% of people lived in poverty; 30% were homeless during their lives; 18% were unemployed; and 11% of those who had a job reported that they were fired or forced to resign because of their gender identity.

Faced with the exclusion mainly of trans women from the formal labor market, the search for alternatives has multifactorial causes. In 2017, according to the Trans Health Survey [87] carried out in five European countries, of a total of 885 people interviewed, 7% revealed that they had already engaged in sex work. Of these, trans women accounted for more than three times (14.2%) the percentage of trans men (4.1%). Two of the main reasons cited are the need for additional income for subsistence (48.4%) and the lack of opportunities (38.7%). While sex work provides space for socialization, shelter, and expression of gender identity, it also results in greater exposure to violence and other situations of vulnerability [88].

The harmful use of alcohol and/or other drugs in the social context was verified in our review. Similar to these results, a study in the USA [89] showed a higher prevalence of homelessness and other social determinants of health among trans people compared to cis people who use alcohol and/or other drugs. In this sense, it is suggested that interventions be centered on addressing social and economic issues of trans people, considering that these factors can contribute to substance use and result in other health consequences.

Sexualized drug use is also pointed out in a study in China [90] in another context with trans women and sex work but converging on the reinforcement of actions to prevent HIV and other sexually transmitted infections, as well as peer support and mental health promotion.

In turn, the conditions of programmatic vulnerability found in this review manifested in several factors related to structural and systemic difficulties in access to health and other spheres. Similarly, evidence from Africa [91, 92] identified exclusionary aspects, such as limited availability of competent health services, lack of accessibility, inadequate knowledge of the health needs of trans people, prejudice, and discrimination in the professional approach. In the USA [93], a compilation of barriers in this regard was also observed, such as disrespect for social names and first names, and gaps in the training of health professionals.

Regarding specific challenges of the gender transition process identified in our research, results from a cross-sectional study in Canada [94] also showed substantial waiting times for potentially urgent gender-affirming care. It is not a rule that all trans people wish to undergo

procedures for body modifications, such as hormones and genital surgeries [95, 96]. For many of these people, body transformation through hormones already provides them with a sufficient sense of identity, and surgical intervention is not necessary [97].

Similarly to the findings of this study, a study in Chile [98] found hormonal self-medication, since about 42% obtained hormones through informal sources, such as friends and the black market. However, these data were not presented as disaggregated by identity category, as in the Brazilian study [71]. In Australia [99], ambiguous and complicated trajectories for access to trans-specific care were observed, in addition to the difficulty in obtaining doctors to prescribe them. A literature review [100] showed that health professionals are often not qualified or unwilling to provide such care, while most health services do not have specialized care.

The pathologization of trans identities identified in this research also presents itself as a barrier to access to health, which can contribute to more vulnerability. The process of depathologization is complex because it demands that the self-determination of trans lives be ensured, without being restricted to diagnostic criteria and normative frameworks [101]. Therefore, it involves ensuring conditions of comprehensive health care, broad access, and reception regarding care practices and services [96], without loss of autonomy and fundamental rights.

This review also found a notable disarticulation in the health care network between specialized care and PHC, contributing to overloaded reference services, insufficient PHC involvement, and impaired integrality of care. However, the Brazilian SUS advocates that PHC be the main gateway and order the flows and counterflows of people, products, and information at all levels of health care, without exclusion based on gender identity, among other forms of discrimination [102].

Some gender-affirming clinical-surgical procedures need to be performed in specialized care. However, most of the health and general well-being issues of this population can be addressed within the scope of PHC, without differentiation of the services offered to cis people [103]. A systematic review [104] on the experiences of trans people in PHC identified studies from high-income countries and pointed to the need for multifaceted initiatives in the training and continuing education of health professionals, as well as improvements in the physical structure of PHC.

In New Zealand [105], trans people with positive experiences of medical support in PHC had fewer symptoms of psychological distress and a lower probability of suicide attempts in the last 12 months of the survey, demonstrating the importance of the role of this level of care in

health promotion and disease prevention, among other care strategies.

Regarding the gaps in public policies investigated in the present study, it was found that the existence of these policies in isolation does not ensure access and care to social, political, and economic practice, given the influence of multifactorial aspects, such as social, political, and economic. In general, intersectoriality represents a strategy of public management in democracy, which presupposes political decisions. Beyond the health field, this logic produces articulation between different sectors and complementarity of actions to meet comprehensiveness, promote citizenship, and guarantee human rights [106].

Failures in the effective response of all these policies, programs, and actions will impact the increase of social and health inequities [107]. A programmatic element is not always favorable. Instead of being beneficial, it can generate situations of vulnerability, such as pathologizing practices, little sensitivity to the uniqueness of people and their contexts, and reproducing prejudice and discrimination based on gender and race, among others [4].

Our review also found that the percentage of studies specifically with trans men was almost nine times lower (7%), compared to that of trans women (61%). This scarcity of studies is also evidenced in another scoping review, which identified few investigations in the context of the health of trans men in low- and middle-income countries, suggesting the need for more inclusion and disaggregation of this identity category in research, to support specific analyses of trans health and expand the capacity to guide interventions [108].

In our study, over half (56%) of the investigations were conducted in the Southeast region, while no research was found in the North region of the country. The lack of reference services for specialized care of trans people in this region may be one of the factors that reflect this lack of studies. For example, in 2023, the first SUS hospital establishment in that region was qualified [109]. However, as of November 2024, there was no outpatient service enabled in this location, out of the 23 establishments qualified for this modality in the country [110]. In general, regional inequalities are perpetuated in Brazil, with the states of the North and Northeast regions being the most affected, with worse rates in certain health indicators, such as PHC coverage, number of doctors, nurses, and beds per inhabitant, morbidity, and mortality [111].

By finding quantitative and qualitative studies in similar percentages, a balance was found between methodological approaches that sometimes quantify and measure, and sometimes capture subjective aspects of the life trajectories of trans people. Besides, the same proportion of publications occurred in national and foreign scientific journals, contributing to harmonizing the reflections in journals of both scenarios.

There was also a predominance of themes related to HIV and AIDS in our review, considering the relevance of the disease given the high prevalence in trans women, which ranged from 0 to 49.6% in a systematic review that included 11 countries, including Brazil [112]. Subsequently, studies on the theme of mental health were also highlighted. On the other hand, only one study [35] of the present study included chronic non-communicable diseases in the investigation. These findings are corroborated by a review of 116 studies from 30 countries, which identified that other chronic morbidities are less researched in transgender people. This aspect reinforces the need for more research on other health issues, also dimensioning the impacts of social and structural aspects, which make this population vulnerable and worsen their living conditions in different parts of the world [2].

Limitations

One of the limitations of this research was the exclusive use of published scientific articles, without contemplating academic products such as theses, dissertations, and course completion papers. Also, relevant articles may have been overlooked because they did not use the search strategy descriptors included in this review or were indexed in unconsulted databases. However, gray literature and additional sources were searched to complement the search.

It is worth noting that the methodological quality of the selected studies was not evaluated; however, such an analysis is not a requirement of the method adopted. The time frame assumes that the interval is reasonable for observing programmatic challenges in implementing the national comprehensive health policy established in 2011.

In the evaluation process carried out by independent reviewers, we sought to avoid losses as much as possible, although important data from studies that were not disaggregated by gender identity category may have been omitted. Furthermore, because the study population encompassed binary trans identities (trans women and trans men), a descriptor specifically related to non-binary identities was not included in the research strategy. That said, only two studies [71, 79] were found that contemplated this category, together with trans people.

Conclusion

In the conceptual molds adopted, the present review identified and categorized circumstances that manifest social and/or programmatic vulnerability situations that may affect access to health care for trans people in different Brazilian realities. Both dimensions of vulnerability were observed together in most of the evidence analyzed. We also found gaps in the production of

scientific knowledge, such as the absence of research in the northern region of the country, few studies carried out with trans men, as well as scarce research on chronic non-communicable morbidities.

These results are essential to support the formulation and implementation of new, more comprehensive, and inclusive public policies in comprehensive health, which address the different structural conditions of vulnerability; ensure specific gender-affirming care; guarantee access to quality health at all levels of care, education, housing, work and income, and other social rights, without prejudice and discrimination; support information, communication and education initiatives on gender and sexuality for families, communities, students, managers and health professionals; and contribute to fostering the development of scientific research.

Abbreviations

CF/88	Brazilian Federal Constitution of 1988
STIs	Sexually Transmitted Infections
PCC	Population, Concept and Context
PHC	Primary Health Care
PEP	HIV Post-Exposure Prophylaxis
PrEP	HIV Pre-Exposure Prophylaxis
SUS	Unified Health System

Supplementary Information

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Supplementary Material 1

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Author contributions

F.L.S.F. was responsible for the rationale and design of the investigation, search strategy, selection and reading of scientific articles, data extraction and writing the manuscript. A.S.D.S. and V.F.V. contributed to the screening and selection of studies. X.P.B. also collaborated to reading the studies and extracting the data. E.M.H. and X.P.B. participated in the study's rationale and made contributions throughout the process. F.L.S.F., E.M.H. and X.P.B. revised the manuscript. All the authors read and approved the final manuscript.

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Data availability

The dataset that supports the conclusions of this review is included in the article, as well as in its additional file.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

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Competing interests

The authors declare no competing interests.

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