

IMPLICATIONS OF CHAGAS DISEASE ON THE QUALITY OF LIFE OF THE BRAZILIAN POPULATION: A BIBLIOGRAPHIC REVIEW

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Abstract: Chagas disease is a tropical disease caused by the parasite *Trypanosoma cruzi* and considered by the World Health Organization (WHO) as one of the neglected diseases in the world. Its transmission in humans occurs mainly by the insect vector known as barber. In Brazil, the Information System on Notifiable Diseases (SINAN) recorded around 1,270 confirmed cases of Chagas disease between 2017 and 2022, with the Northeast being one of the regions with the highest prevalence of Chagas disease, as it is an area with a low rate of Chagas disease. Human Development (HDI). This article is a descriptive literature review that aimed to search for articles and perform an analysis on the implications of Chagas disease in the lives of patients with it. The search in the databases took place in March 2022 and considered the PubMed and SciELO (Scientific Electronic Library Online) platforms. After surveying the reference in the two adopted databases, eight articles were totaled. In conclusion, Chagas disease is a neglected disease, being more related to patients with lower educational and economic levels, which affects the quality of life of patients.

Keywords: Chagas disease; Complications; Quality of life.

INTRODUCTION

Chagas disease or American trypanosomiasis is a generalized, essentially chronic infection caused by the protozoan *Trypanosoma cruzi*, transmitted mainly by hematophagous triatomine vectors, popularly known as “barbeiros”. The species *Triatoma brasiliensis* and *Triatoma pseudomaculata* are the main vectors of Chagas disease in Northeast Brazil (MEDEIROS, 2022).

In addition to vector transmission, vertical transmission also occurs (via the placenta from the chagasic mother to the fetus) as well as through blood transfusions,

donation of contaminated organs, in addition to oral transmission with the ingestion of contaminated food, which is increasingly present. (FRANCESCA, 2019). Chagas disease is also characterized by having an acute phase, predominantly asymptomatic, but with an evolution of death of 5% to 10% in symptomatic patients. In addition, there is a chronic phase that can progress to cardiac, digestive and neurological impairment, occurring in about 30% to 40% of infected people in the first to third decade after the acute phase is manifested (MEDEIROS, 2022; VELASCO, 2020).

Chagas disease is a typical example of an organic injury resulting from changes produced by humans to the environment, economic distortions and social injunctions, which even after more than a century of the discovery of the disease by the Brazilian doctor, researcher and sanitarian Carlos Chagas, the disease remains a public health problem. (BRAZIL, 2022; VELASCO, 2020).

To get an idea of the magnitude of the problem, the Brazilian territory has the third highest incidence rate of Chagas disease, with approximately 1.2 million cases per year and about 6,000 deaths/year, according to data reported on Sinan/net. in the last decades. Between 2017 and 2022, the Information System for Notifiable Diseases (SINAN) recorded about 1,270 confirmed cases of Chagas disease in Brazil, where 1,257 of these cases (98.9%) originate in the North and Northeast of the country. . As a result, they are the regions with the highest prevalence of the disease because they are areas with a low Human Development Index (HDI), an indicator of the occurrence of neglected tropical diseases (COSTA, 2017).

It is also noteworthy that, despite being a disease of compulsory notification nationally since the year 2020, there are limitations in current data sources for the construction of

indicators for Chagas disease. Given that, based on SINAN, sixty-four cases were registered in the period of five years (2015-2019) in the Northeast region and only one confirmed case in the state of Bahia, proving how Chagas disease cannot be faithfully analyzed due to failure in the collection of epidemiological data (LIMA, 2021).

METHODOLOGY

This article consists of a descriptive literature review that is based on the collection of data available in the bibliography and which aims to compare them for a deeper understanding of the topic addressed. The bibliographic survey was carried out on national and international articles from scientific journals between the years 2012 and 2022.

The guiding question of the study corresponded to “Implications of Chagas disease on the quality of life of the Brazilian population: a literature review”. The search in the databases took place in March 2022 and considered the platforms: PubMed and SciELO (Scientific Electronic Library Online). To obtain the information, all references that met the following criteria were included: a) they presented primary data; b) present a version in Portuguese, English or Spanish. c) published in the period 2012-2022. All studies that: a) were not freely available; b) were not available in full.

The terms used for the search were previously selected, considering the controlled vocabulary for indexing articles of the Descriptors in Health Sciences (DeCS), through which the descriptors “Chagas Disease”, “Quality of Life” and “Brasil” used in the SciELO and “Chagas Disease”, “Quality of Life” and “Brazil” databases corresponding to PubMed. The Boolean operator AND was applied to promote the combination between the three chosen terms, so that the association

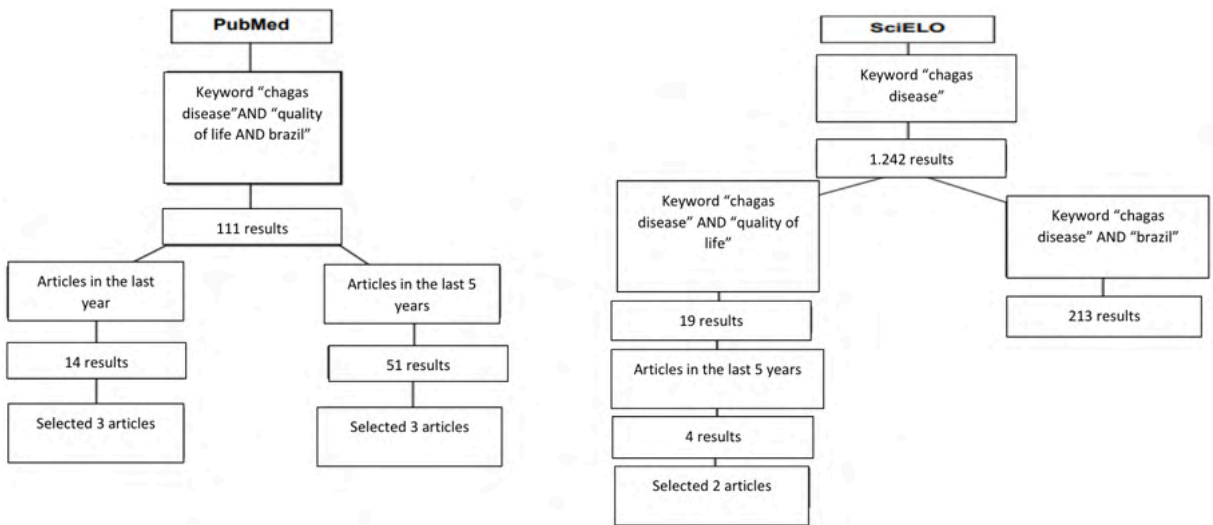


Figure 1 above represents the search in the databases mentioned above.

SOURCE: Prepared by the authors.

“Chagas Disease AND Quality of Life AND Brazil” was used in SciELO and “Chagas Disease AND Quality of Life AND Brazil” in PubMed.

RESULTS

Thus, after surveying the reference in the two adopted databases, confirming the eligibility for a detailed reading of the manuscript and considering the approach to the guiding question of this study, a quantitative of eight articles was established. Below is the table with the characterization of the articles selected for discussion (Table 1).

DISCUSSION

Chagas disease (CD) is a tropical disease whose etiological agent is the protozoan *Trypanosoma cruzi* (BALDONI, 2021) and is classified by the World Health Organization (WHO) as one of the 17 neglected tropical diseases (CAVALCANTI, 2019). Therefore, there are major challenges in the provision of comprehensive health care and in strengthening the epidemiological and entomological surveillance actions of

Chagas, characterizing it as an omitted and problematic disease for public health (PAZ, 2018).

In addition, due to the high prevalence of the disease in the Latin American continent, Brazil is transfigured as an endemic area, mainly in the Northeast region of the country, which is the second largest region of prevalence according to the II Brazilian Consensus on Chagas Disease (PAZ, 2018). It is essential to identify the territories where infected people are living, in order to promote comprehensive care and improve the quality of life (LIMA; 2021).

Regarding the pathogenic character, Chagas disease stands out among the chronic diseases as it affects 1.2 million people (CAVALCANTI, 2019).

In addition, the quality of life in chagasic patients manifested itself as the area of greatest consequence and change in these people’s lives. Quality of life (QoL) is related to four domains (physical, psychological, social relationships and environment and according to the WHO definition, characterizing QOL as the individual’s perception of a

Author	Study location	Title	Kind of study	Relationship with the objective
Cavalcanti <i>et al.</i> , 2019	Faculty of Health Sciences, State University of Rio Grande do Norte	Manifestations and coping strategies of Chagas disease that interfere with the individual's quality of life: a systematic review	Systematic literature review	The aim was to identify the manifestations and coping strategies of Chagas disease that impact the quality of life of the affected individual.
Santos-filho <i>et al.</i> , 2018	Evandro Chagas National Institute of Infectious Disease, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil	Quality of life and associated factors in patients with chronic Chagas disease Study type: observational cross-sectional study design.	Observational cross-sectional study design.	To assess the quality of life of patients with Chagas disease and the association between domains of various clinical, socioeconomic and lifestyle characteristics of this population.
Lima <i>et al.</i> , 2021	Secretariat of Health Surveillance, Ministry of Health, Brasília, Brazil	Stratification of priority territories for surveillance of chronic Chagas disease: multicriteria analysis for health decision making	Case study	Identify the territories with the highest incidence of the disease to adapt prevention and treatment
Baldoni <i>et al.</i> , 2021	Federal University of São Paulo, Federal University of Minas Gerais and Federal University of Belo Horizonte	Quality of life in patients with Chagas disease and the instrument used: an integrative review	Systematic literature review	The article aims to assess the quality of life of patients with Chagas disease in the chronic phase of the disease, the instrumentation used and the effect of different interventions
Saraiva <i>et al.</i> , 2019	Evandro Chagas National Institute of Infectious Diseases, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil.	Impact of pharmaceutical care on the quality of life of patients with heart failure due to chronic Chagas disease: Randomized clinical trial	Case study	The article presents a successful treatment, according to research, for heart failure due to Chagas disease
Paz <i>et al.</i> , 2018	University of Pernambuco. Recife, Pernambuco, Brazil	Health-related quality of life in patients with heart failure	Systematic review	The article talks about the progression and heart failure, which they define as a clinical syndrome that is characterized by dysfunction in the structure and functioning of the heart.
Silva <i>et al.</i> , 2021	Public university hospital in cardiology outpatient clinic.	Epidemiological profile, cardiopulmonary status and health-related quality of life of patients with heart failure: a longitudinal study	This is an observational cohort study.	The article shows epidemiological aspects along with the sociodemographic profile of low education and reduced purchasing power of patients. The study was carried out with patients with advanced HF functional classes. Physical, social and psycho-emotional scores were evaluated, resulting in an assessment of quality of life.

Chambela <i>et al.</i> , 2017	Evandro Chagas National Institute of Infectious Diseases, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil.	Correlation of 6-min walk test with left ventricular function and quality of life in heart failure due to Chagas' disease	Cross-sectional study	The aim of the study was to relate the impact of the 6-minute walk test with ventricular function and quality of life in CD patients with HF.
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Table 1 - Characterization of the articles selected for analysis.

Source: Prepared by the authors

complex concept that involves life, cultural context and value systems in which they live, Chagas disease directly influences QoL as it is typified as a disabling disease and because affected people observe damage to their general health (CAVALCANTI, 2019; SANTOS-FILHO, 2018). It is interesting to mention that low levels of education decrease the opportunities for information and access to health care and that this constitutes an important factor in the QOL of those affected and is associated with the prevalence of readmissions and mortality (PAZ, 2018).

It is worth mentioning that studies have revealed that even the diagnosis itself triggers negative feelings and that it causes the complication of the installed condition (CAVALCANTI, 2019).

Furthermore, the differentiation between the sexes reveals that women are at greater risk of poor quality of life in the mental, emotional and physical functioning domains. In addition, the fact that most patients become aware of their condition late, or as a result of the manifestation of symptoms, promotes a situation in which the disease passes through the acute phase without being noticed, which acts as an aggravating factor in their quality of life. life (CAVALCANTI, 2019).

Regarding complications, Chagas disease is the main etiological cause of heart failure (HF), a severe and self-limiting syndrome, it is believed that its signs and symptoms predict worse health-related quality of life scores, which are mainly influenced by the deterioration of physical capacity. (SILVA, 2021). It is interesting to mention that the 6-minute walk test can be safely performed in patients with CD Chagas disease and heart failure, this method assesses symptoms of fatigue and dyspnea in patients. (CHAMBELA, 2017).

Thus, it is clear, therefore, that studies on quality of life in individuals with Chagas disease need to be better explored and understood to increasingly develop effective health intervention strategies (BALDONI, 2021).

CONCLUSION

It is possible to infer, based on the results and discussions, that Chagas disease is a neglected disease that directly interferes with the quality of life of those affected by the disease, being more related to individuals with low educational and economic levels, which directly impacts the well-being of the patient, since it can generate several limitations. Therefore, it can be noted that

many factors can influence the quality of life of patients with Chagas disease and much needs to be discussed and explored to ensure a good strategy to improve their comfort.

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