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INTEGRATIVE LITERATURE REVIEW ARTICLE

INDIGENOUS HEALTH IN THE CONTEXT OF THE LEGAL AMAZON SAÚDE INDÍGENA NO CONTEXTO DA AMAZÔNIA LEGAL LA SALUD INDÍGENA EN EL CONTEXTO DE LA AMAZONÍA LEGAL

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ABSTRACT

Objective: to know the scientific evidence on indigenous health in the Brazilian literature in the context of the Legal Amazon. Method: this is a bibliographic, descriptive, integrative literature review type study. After searching the LILACS and BDENF databases, as well as the SciELO Virtual Library, 99 articles were found, ten of which met the inclusion criteria. The descriptors 'health of indigenous populations', 'indigenous health service' and 'assistance to indigenous' were used, in addition to the crossover of the Descriptors in Health Sciences combined with the use of the Boolean operator AND: "indigenous health" AND "Amazon" and "indigenous community" AND "health". Results: in the analysis, the states of Amazonas and Mato Grosso stood out in relation to the quantitative approach selected studies, most of which were published in the Caderno Saúde Pública journal, with 26 authored by PhDs. *Conclusion*: the need for new studies on indigenous health in the Legal Amazon was verified in order to know the adversities faced by these populations.

Descriptors: Indigenous Health; Contraception; Health Services; Indigenous; Health of Indigenous Peoples; Cultural Diversity; Indigenous Population; Health Profile.

RESUMO

Objetivo: conhecer as evidências científicas na literatura nacional sobre a saúde indígena no contexto da Amazônia Legal. *Método*: trata-se de um estudo bibliográfico, descritivo, tipo revisão integrativa de literatura. Encontraram-se, após a pesquisa nas bases de dados LILACS e BDENF e na Biblioteca Virtual SciELO, 99 artigos, dos quais dez atenderam aos critérios de inclusão. Utilizaramse os descritores 'saúde das populações indígenas', 'serviço de saúde indígena' e 'assistência aos indígenas', além do cruzamento dos Descritores em Ciências da Saúde combinados com o uso do operador booleano AND: "saúde indígena" AND "Amazônia" e "comunidade indígena" AND "saúde". Resultados: destacaram-se, na análise, os estados do Amazonas e Mato Grosso em relação aos estudos selecionados de abordagem quantitativa. Publicou-se a maioria na revista Caderno Saúde Pública, sendo 26 com autoria de doutores. *Conclusão*: constatou-se a necessidade de novos estudos sobre a saúde indígena na Amazônia Legal com o intuito de se conhecer as adversidades enfrentadas por essas populações.

Descritores: Saúde Indígena; Contracepção; Serviços de Saúde; indígenas; Saúde das Populações Indígenas; Diversidade Cultural; População Indígena; Perfil de Saúde.

RESUMEN

Objetivo: conocer la evidencia científica en la literatura nacional sobre la salud indígena en el contexto de la Amazonía Legal. *Método:* se trata de una revisión bibliográfica, descriptiva e integradora de la literatura. Después de buscar en las bases de datos LILACS y BDENF y en la Biblioteca Virtual SciELO, se encontraron 99 artículos, de los cuales diez cumplieron con los criterios de inclusión. Se utilizaron los descriptores 'salud de poblaciones indígenas', 'servicio de salud indígena' y 'asistencia a indígenas', además del cruce de Descriptores de Ciencias de la Salud combinado con el uso del operador *booleano AND*: "salud indígena" *AND* "Amazonia "y" comunidad indígena "*AND*" salud ". *Resultados:* los estados de Amazonas y Mato Grosso se destacaron en el análisis en relación a los estudios seleccionados con enfoque cuantitativo. La mayoría fue publicada en la revista Caderno Saúde Pública, 26 de las cuales fueron escritas por médicos. *Conclusión:* era necesario realizar más estudios sobre la salud indígena en la Amazonia Legal para comprender las adversidades que enfrentan estas poblaciones.

Descriptores: Salud Indígena; Anticoncepción; Servicios de Salud; Indígenas; Salud de Poblaciones Indígenas; Diversidad Cultural; Población Indígena; Perfil de Salud.

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INTRODUCTION

The Amazon is known worldwide for its natural richness, and its territory includes a wide freshwater river and an extensive biodiversity of fauna and flora, being characterized as an influential topic when it comes to the preservation of the environment and the promotion of actions and projects in still unknown regions. Several studies have been developed annually in this territory due to its vast diversity of natural resources that generate healthy products, accessible for herbal treatments, practices that have a reduced impact on the degradation of the ecosystem. Several worldwide and national organizations, companies and researchers are attracted to this area because of their interest in developing research on the lifestyle of the different peoples who inhabit this territory.¹

Since the early times, the Amazon has been formed by a population that throughout the history of the discovery of Brazil was declared uncivilized and generically called indians. At that time, the native indians were pointed out to be experiencing a process of acculturation, with different lifestyles being inflicted on them through religious Jesuit catechism during the expeditions of the colonizers who, along the Solimões and Amazon rivers, used the indigenous as labor to extract the natural resources that were found.^{2,1}

In this context, an indigenous Amazon with different ethnicities, traditions and cultures is portrayed. A population that throughout history has faced various struggles in relation to the demarcation of their lands and the fight against illegal exploitation by loggers, farmers, squatters and miners is revealed. It is important to point out that these people seek to preserve the environment, the social identity of their descendants, the indigenous lands that already exist and those that are not yet known in the Legal Amazon and, above all, to guarantee access to health in a way that meets their needs.³

Since the 1980s, indigenous health has been incorporated as one of the essential rights for the existence of those peoples in the Legal Amazon and throughout the Brazilian territory. It is pointed out that it was through the indigenist movements that the social policies turned a differentiated look in defense of those peoples. However, this population faces a period of regression in their rights, causing a negative impact on the education, security and health of those original peoples.⁴

Regarding health, the Indigenous Health Care Subsystem is considered to have a basic care model that organizes the services provided by the Special Indigenous Health Districts (DSEIs) responsible for integrating the health posts, the base poles and the Indian Health Support Houses (CASAI) in their assistance in indigenous lands. These houses are articulated to regional hospitals, reference services for serious occurrences, when advanced support assistance is needed in urban areas. Human resources are formed by a multidisciplinary team, a group of professionals who carry out

transdisciplinary actions that must respect the cultural peculiarities and traditional practices of those native peoples.⁵⁻⁶

The Legal Amazon is known to have a humid tropical forest with a peculiar biome, consisting of nine states (Acre, Amapá, Pará, Amazonas, Rondônia, Roraima and part of the states of Mato Grosso, Tocantins and Maranhão). It can be said that in the territory of this macro-region, 60% are inhabited by the indigenous population and that the changes which have occurred in the different contexts of those states have been interfering in the quality of life of those people. Planning the health services offered to those people should therefore be linked to the specificities and peculiarities of each individual, so that health promotion and prevention of diseases can meet the needs of the indigenous populations in a traditional and cultural way. 8-9

It is evident, when considering the health challenges faced by indigenous peoples in the Legal Amazon, that these peoples need specialized attention in cultural, geographic and epidemiological contexts, and the published surveys can help contextualize the indigenous health profile. This study is justified in view of the considerations presented above and given the need for new scientific investigations focused on the issue in question, since health surveys contribute, above all, to the development of knowledge in proposing policies for the indigenous population.

OBJECTIVE

To get to know the scientific evidence on indigenous health in the Brazilian literature in the context of the Legal Amazon.

METHOD

It is a bibliographic, descriptive, integrative literature review type study, with a specific method that selects, synthesizes and compares the differences and similarities among the surveyed studies. The following steps were taken: 1) elaboration of the guiding question; 2) search or sampling in the literature; 3) data collection; 4) critical analysis of the included studies; 5) discussion of results; and 6) ILR presentation.¹⁰

This review was guided by the following question: "What is the scientific knowledge produced on indigenous health in the context of the Legal Amazon available in the national literature?".

The primary studies were conducted from June to July 2019 in the following databases and virtual library: Latin American and Caribbean Health Sciences Literature (LILACS), Nursing Databases (BDENF) and the Scientific Electronic Library Online (SciELO).

The following criteria were defined for the inclusion of articles in the review sample: primary studies (original articles, literature reviews, reports on experiences and reflections) published between 2009 and 2019, with full text available in the Portuguese language for free and online;

studies focusing on reflections, surveys or experiences on the context of indigenous health in the Legal Amazon, in addition to the strategies of health services. Theses, dissertations, reply letters, editorials, studies that were not located in full in the search addresses or those repeated in the consulted databases were excluded, having been computed only once for analysis.

It is pointed out that the search was carried out by two researchers, guaranteeing the rigor of the selection process of the articles in the databases and in the virtual library, using DeCS such as "Health of indigenous populations " (n=22), " Indigenous health service " (n=11) and " Assistance to indians" (n=11). The crossover of the DeCS combined with the use of the Boolean operator AND: "Indigenous Health" AND "Amazon" (n=45) and "Indigenous Community" AND "Health" (n=10) was conducted.

It should be mentioned that after the search strategy in the database and virtual library, a total of 99 articles were found, 23 in the BDENF database; 58 in SciELO; and 18 in LILACS. 82 articles were chosen in the pre-selection stage. 72 were then excluded after reading the selected articles, leaving only ten articles as the final sample of this review, as shown in figure 1. It can be noted that the crossovers of BDENF, LILACS and SciELO resulted in 99 publications; out of those, three were not articles and seven articles did not exist, thus accounting for 89. The articles were then pre-selected by reading the titles and abstracts of the studies that had been found. 10 studies found to be duplicated and 20 did not meet the inclusion criteria, with 59 remaining. The studies were filed in separate folders, using alphanumeric codes (for example, A1 being "A" for "Article", and "1" for the sequence number). At the second moment of the selection, a floating reading of the 59 complete documents was done, 49 of which did not meet the inclusion criteria, resulting in a total of 10 articles included.

The collection of data from the selected studies was carried out by means of an instrument prepared exclusively for the study, which includes the title of the work, the authors (title, education and origin of the institution), title of the journal (year, volume and number), study design, objectives, level of evidence, place of study (region, municipality and state), ethnicity, subjects investigated, result, conclusion and score of the journal in the Qualis system of the Coordination for the Improvement of Higher Level Staff (CAPES).

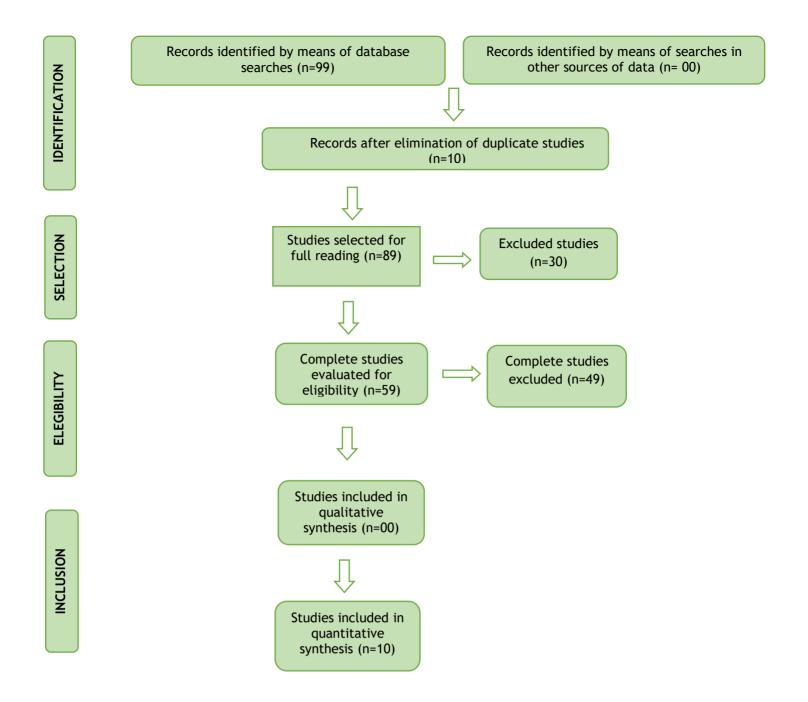


Figure 1. Study selection flowchart adapted from *Preferred Reporting Items for Systematic Reviews* and *Meta-Analyses* (PRISMA 2009). Coari (AM), Brazil, 2019.

A critical appraisal of the publications found through the application of the instrument adapted from the *Critical Appraisal Skills Programme* (CASP)¹¹ elaborated by the Oxford University in 2002 was carried out. Through this validated instrument, studies are classified with the following scores: six to ten points (good methodological quality and reduced bias), and a minimum of five points (satisfactory methodological quality, but with increased risk of bias). It was thus decided to only use articles classified from six to ten points.

The evidence levels of the analyzed articles were classified based on the following hierarchical levels: I - systematic reviews or meta-analysis of relevant clinical essays; II - evidence of at least one well-outlined randomized controlled clinical essay; III - well-designed clinical essay, without randomization; IV - well-designed cohort and case-control studies; V - systematic review; VI - evidence of at least one of the qualitative or descriptive studies; VII - opinions of authorities or expert committees, including non-research based interpretations of information. ¹²

As for the discussion of the results, the data were compared through the findings of other authors in the literature, with delimitations of the conclusions and interference of researchers.

Through the ILR, we tried to present the outcomes by means of figures and tables, using the *Microsoft Excel* program (version 2016). The data were analyzed in a descriptive way in order to make it easier for the reader to understand the study.

It should be noted, with regard to the ethical aspects of the survey, that all authors consulted were mentioned in the text and referenced. It is emphasized that the ILR waives the submission of the study to a Committee of Ethics in Research. (CER).

RESULTS

Characterization of the articles

In relation to the ten selected articles, it is pointed out that each of the years 2015, 2016, 2017 and 2018 presented two publications, while in the years 2009 to 2013 one study per year was published according to figure 2.

Most of the scientific productions were found in the SciELO virtual library, followed by those published in Revista Epidemiologia e Serviços de Saúde, Revista de Saúde Pública, Revista Brasileira de Epidemiologia and Revista Caderno Saúde Pública. It is reported that the scoring of those articles in the Qualis system showed that five articles fit level A3; two, B2; one, B1; and another, A2.

Code	Títle	Journal	Year	Qualis
A1 ¹³	Health care for the haliti-paresí indigenous woman.	Rev Enferm UFPE on line.	2018	B2
A2 ¹⁴	Spatial distribution of tuberculosis amongst indigenous and non-indigenous populations in the state of Pará, Brazil, 2005-2013.	Esc Anna Nery Rev Enferm	2017	B1
A3 ¹⁵	Breastfeeding of indigenous children in two municipalities of the Brazilian Western Amazon.	Acta Paul Enferm	2016	А3
A4 ¹⁶	Differentiated attention model in the Indigenous Special Sanitary Districts: reflections from the Upper Rio Negro/AM, Brazil.	Ciênc Saúde Colet	2015	А3
A5 ¹⁷	Assistance provided by the National Health System of Teresina to the indigenous population of Maranhão, 2011: a descriptive study.	Epidemiol Serv Saúde	2016	В2
A6 ¹⁸	Tuberculosis and intestinal parasitism in the indigenous population of the Brazilian Amazon.	Rev Saúde Pública	2009	A2
A7 ¹⁹	Socio-environmental inequalities in the occurrence of dental decay in the indigenous population in Brazil: evidence between 2000 and 2007.	RevBras Epidemiol	2013	B2
A8 ²⁰	Intermedicality and protagonism: the action of the Munduruku indigenous health agents at the Kwatá-Laranjal Indigenous Reservation, Amazonas, Brazil.	Cad Saúde Pública	2015	А3
A9 ²¹	Access of indigenous users to health services in Cuiabá, Mato Grosso, Brazil.	Cad Saúde Pública	2017	A3
A10 ²²	Oral health care in the Xingu Indigenous Park, Brazil, 2004-2013: a look on the basis of evaluation indicators.	Cad Saúde Pública	2018	А3

Figure 2. Distribution of articles by author, title, journal, year and Qualis. Coari (AM), Brazil, 2020.

Regarding the background of the authors of the ten articles selected for this research, it is noteworthy that 26 were developed by PhD professors; five by post-doctorate students; one by a PhD student in the field of tropical diseases; one by a master's degree student in the field of health; and ten by master researchers.

Regarding the authors' area of activity in figure 3, nurses stand out in the number of 13, followed by doctors and odontologists, each with seven.

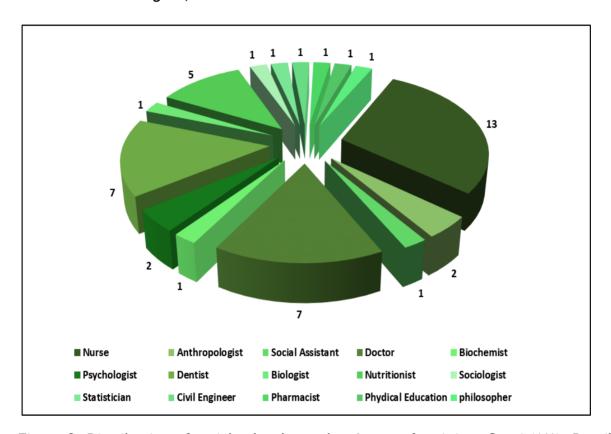


Figure 3. Distribution of articles by the authors' area of training. Coari (AM), Brazil, 2020.

Figure 4 shows that, as regards the authors' institutions of origin, six articles corresponded to the Federal University of São Paulo, followed by five from the University of the State of Mato Grosso.

Origin	N
Federal University of São Paulo	6
University of the State of Mato Grosso	5
Oswaldo Cruz Institute	4
Federal University of Piauí (UFPI)	4
University of the State of Pará (UEPA)	4
Federal University of Rio de Janeiro	4
Federal University of Acre (UFAC)	2
Federal University of Santa Catarina (UFSC)	2
University of Amazonia	1
National School of Public Health (ENSP)	1
University of the State of Rio de Janeiro	1
Nilton Lins University	1
Caruaruense Association of Higher Education	1
Family Health Support Center	1
University of São Paulo (USP)	1
United Colleges of Araguaia Valley (UNIVAR)	1
Federal University of Bahia (UFBA)	1
State Health Secretariat of Mato Grosso	1
University of Massachusetts, Amherst	1
Federal University of Minas Gerais (UFMG)	1
University of the State of Amazonas (UFAM)	1

Figure 4. Distribution of articles by the authors' institution of origin. Coari (AM), Brazil, 2020.

The routine of health services specialized in indigenous health is described according to the care offered, the activity records, the transfer flow and the access of users to indigenous health in the Amazon.

Among the articles in this review, 29 female authors stood out, with Revista Caderno Saúde Pública having the highest number of publications, that is, three articles. The states that most developed the study themes are listed as follows: Amazonas and Mato Grosso, both with three articles, followed by the states of Acre, Pará and Maranhão. However, one article was observed to include ten states in its analysis: Mato Grosso, Amazonas, Tocantins. Ceará, São Paulo, Pernambuco, Rio de Janeiro, Santa Catarina, Paraíba and Amapá.

As of a full reading and synthesis of the results of all contents, the characterization of the selected articles is presented in figure 5.

In relation to the design of the studied articles, five were developed with a qualitative approach and five with a quantitative approach. In the selected studies, the Kaiabi ethnicity stood out in two articles, and the level of evidence of the analyzed articles corresponded to VI.

The themes of the contents of the articles

"Oral health" and "tuberculosis" were registered to have been addressed most frequently in the analyzed articles (each theme was analyzed in two studies). The objective of article A1 was to verify how indigenous women define and promote health. The result showed that in the sociodemographic profile of the indigenous populations who were part of these studies, the female gender was represented by the image of some women who are still housewives, responsible for taking care of their families, emphasizing the profile of the traditional family.

It is observed that only article A3 highlighted breastfeeding among indigenous children, noting that the objective of the study was to analyze the type of breastfeeding practices among indigenous children from zero to two years old in the municipalities of Cruzeiro do Sul and Mâncio Lima, located in the extreme west of the Brazilian western Amazon, as well as to identify the factors associated with early weaning. In this way, the results on the profile of indigenous women matched those of the A1 survey; however, most of those women had had normal deliveries.

Code	Ethnicity/ Design	Main results	Theme	LE
AA1	Haliti-paresí Design: QLS	- The age range of the 12 participants was between 20 and 59 years old. Most had finished Elementary School, were in a stable union and lived in typical indigenous houses. The results were divided into three topics on the definition and promotion of health: the perception of indigenous women regarding health: the health dimension was given by personal and family well-being; self-care to promote health and prevent diseases, an issue linked to the health of their children, verifying that these women dedicate their time to household tasks and to promote cleaning, hygiene and control of urban habits in relation to feeding; in addition to the behavior adopted in the face of health problems.	Indigenous women's health	VI
AA2	NI Design: QTS	 - 31,071 new cases of tuberculosis were reported among indigenous and non-indigenous resident populations. - 98.6% were not indigenous while 1.3% were. 405 new cases of tuberculosis were estimated. - The difference between tuberculosis rates among indigenous and non-indigenous people in health regions was registered. 	Tuberculosis	VI
AA3	Katukina, Nukini, Nawa and Poyanawa. Design: QTS	 The average age of the mothers of those children was calculated at 26 years of age. Many had partners, were illiterate and housewives. Regarding gestational features, 60% had fewer than six prenatal visits, most had a normal delivery (87.9%), and malaria during pregnancy was observed in 39% of the women. As for the children, 98% of them were born full term, 53% were male, and in relation to health problems, respiratory disorders (83%) and diarrhea (76%) were the most frequent. Complementary breastfeeding among the 57 children who participated in the study was verified in 73.7% of the cases, i.e., this type was more frequent among children older than six months; however, Exclusive Breastfeeding (EBF) was 12.3%, followed by mixed breastfeeding, with 1.7%. Out of the 82 children who did not have EBF, 50% had early weaning. 	Breast- feeding	VI
AA4	Baniwa. Design: QLS	 The research presented how the DSEI (Indigenous Special Health Districts) and the assistance model are organized. The conducts carried out in the two villages were identified. The care found were domiciliary/domestic, and when the indigenous people had no resources, they used the radio to request the removal of a sick person to the city, which highlights the need for nurses and doctors to stay in the indigenous area for longer. The routine of the professionals who provide this type of assistance was reported based on the activities that were carried out, such as home visits, lectures and filling in demographic data in the villages of Buriti and Açaí. 	National Policy for the Peoples' Health Care	VI
AA5	Kanela and Guajajara. Design: QTS	 - 67 family representatives were interviewed, corresponding to 44.7% of the indigenous people from two ethnic groups who were referred to the CASAI (Indigenous Health Support Houses) of Teresina (PI). - 48% of the chiefs reported that the hospital is the most used unit and 15 families need monthly access to this health service, with 13 resorting to hospitals of medium and high complexity. - Regarding the services that are provided, 43 chiefs reported that they feel satisfied with the assistance. 	SUS assistance to an indigenous population	
AA6	Tariana, Tukano and Piratapuya. Design: QTS	- Among the participants from the two communities, 5% to 35% were illiterate, belonging to three ethnic groups (Tariana, Tukano and Piratapuya) The sputum exam was collected. The BAAR survey confirmed six positive tests, and the parasite tests detected infections by Ascaris lumbricoides, Trichuris trichiura, ancylostomideos, Entamoeba histolytica/Entamoeba dispar and Giardia lamblia among the residents of the Village of Fatima.	Tuberculosis and intestinal Parasitosis	VI
AA7	Kaiabi, Kaiapó, Tremembé and Guarani. Design: QLS	- Study of 48 indigenous peoples investigated in 19 surveys The occurrence of dental decay was inversely associated with the location of villages outside the Legal Amazon region (at 12, 15 to 19, and 20 to 34 years of age) and with electrification (at 15 to 19, and 20 to 34 years of age) The presence of school was statistically associated with higher DMFT averages (at 15 to 19, and 20 to 34 years).	Oral health	VI
A8	Munduruku. Design: QLS	It was found that Indigenous Health Agents (IHAs) are fully dedicated to the MTIH at times of medical appointments or vaccination campaigns. Kwatá village IHAs provided support to Nursing technicians in maintaining base center activities, from cleaning services to organizing input stocks and document files. - It has been shown that the practice and the time of service help these IHAs to carry out procedures such as measuring blood pressure, suturing, among others; on the other hand, these agents also maintain their care practices, such as the use of medicinal plants, blessings and shamans. - 84% of the IHAs were male, 55% had finished Elementary School and 77% claimed to participate in training courses.	Indigenous health agent	VI

А9	NI. Design: QLS	 The results systematized in the analysis matrix were aggregated by dimensions, namely: The socio-organizational dimension was classified as partially satisfactory (45%). Most of the professionals working in the establishment reported that they received some kind of training in the field of anthropology, aiming at an intercultural operation. The socio-cultural dimension emphasized the participation of religious rituals in health services, such practices being strictly related to the patient's health problems. The geographical dimension is related to the type of transport for the removal of those people to the specialized health services of Cuiabá (MT). It was found that this dimension is the main element of dissatisfaction by the professionals interviewed, besides the abundant description on the subject in the analyzed documents. 	Indigenous Health Service	VI
A10	Kisêdje, Ikpeng, Kaiabi, Trumai, Kamayura, Yudjá, Waurá and Tapayuna. Design: QTS	 The coverage of the first programmatic dental appointment was observed to be over 60% in all analyzed years, except in 2009 and 2010, when the coverage was 44.7% and 53.4%, respectively. The indicator of finished basic dental treatment showed a significant increase from 44.9% to 79.9% between 2006 and 2008. The proportion of dental extractions in all procedures decreased from 24.3% in 2004 to 3.8% in 2011. The coverage of the average collective action of supervised tooth brushing obtained greater variability (1.2% to 23.3%) in the period analyzed. Access to oral health showed good coverage, and the indicator of finished treatment showed a higher percentage compared to the same period regarding other indigenous peoples. 	Oral health	VI

Figure 5. Distribution of articles according to ethnicity, design, main results, theme and level of evidence. Coari (AM), Brazil, 2020. Note: LE-Level of Evidence; NI- Not Identified.

With regard to the children, it should be noted that the majority had early weaning, and among the diseases that affect them are diarrhea and respiratory disorders.

It is observed that articles A2 and A6 aimed to analyze the occurrence of tuberculosis in indigenous and non-indigenous populations living in the state of Pará between 2005 and 2013, as well as to estimate the frequency of tuberculosis and intestinal parasitosis in indigenous people. The results of these two articles identified the epidemiological profile of these regions, and among the notifications it is noted that 1.3% (n=405) of new cases in the state of Pará between the years 2013 and 2015 occurred with indigenous people. The use of the BAAR method to identify cases of tuberculosis is noteworthy, and, among the participants, illiteracy is still one of the variables present in some indigenous communities.

It is noticeable that surveys A7 and A10 aimed to compare epidemiological profiles for dental decay and to test the association between average DMFT and the socio-environmental characteristics of indigenous populations in Brazil, besides analyzing the evolution of these indicators, proposed by the Ministry of Health, in the Xingu Indigenous Park, Brazil, from 2004 to 2013, addressing the issue of oral health in the indigenous population. Regarding dental decay analysis, the results presented in these two articles show that according to article 7 most cases occurred among indigenous who did not belong to the Legal Amazon, while article A10 presented the evolution of the actions for oral health protection and promotion.

In addition, articles A4, A5, A8 and A9 addressed the issue of the differentiated care model, the assistance of the IHAs and the access of indigenous populations to health services provided by the DSEIs. It was evident from the results in article A4 that the health services offered to indigenous populations promote their treatment based on epidemiological and cultural needs while respecting traditional knowledge. In other words, the health of indigenous populations in the Legal Amazon is still linked to the care of the community leader (*pajé*) for the treatment of diseases in primary care. A similar result was registered in article A8, in which the IHA was found to act actively in health education activities and in the training carried out by nurses and doctors.

In articles A9 and A5, the conduct of the professionals who work in the assistance of these services was highlighted, evaluating that the patients were satisfied with the care provided. However, hospital environments are still strange places due to cultural differences, emphasizing that these professionals received training directed at intercultural contextualization.

DISCUSSION

It was shown in this ILR that in the period under study (2015 to 2018) there was an increase in the number of publications of surveys carried out in the territory of the Legal Amazon on the theme of indigenous health. It was pointed out, in relation to the publications analyzed in this study, that

the North region predominated in the articles. As a result, data from the Brazilian Institute of Geography and Statistics (IBGE) were corroborated in relation to the profile of the distribution of indigenous lands, which reported that 48.7% correspond to the North region. It was pointed out that the state of Mato Grosso had its central-western region represented in three articles, with 20.1% of the distribution of indigenous lands. This difference is explained by the fact that most of the self-declared indigenous people are in the state of Amazonas, which illustrates the disposition to study this population.²³

It is pointed out that most of the selected articles belonged to the Cadernos de Saúde Pública journal, which demonstrates the increase in studies on indigenous health and the interest in research in the area of Public Health. It is noteworthy that most authors of the selected articles were professors with PhDs and graduated in Nursing, the Federal University of São Paulo being the institution of origin that mostly produced research on the subject of indigenous health of the Legal Amazon.

The analysis of the articles revealed a heterogeneous epidemiological profile. Among the diseases that affect the indigenous populations, some diseases such as tuberculosis, oral health problems and intestinal parasitosis were evidenced.

It was understood in a review that the introduction of foods other than breast milk follows in accordance with the natural nutrients available in those communities; thus, complementary breastfeeding is a method that is associated with traditional practices. However, the occurrence of diarrhea may be related to the lack of cleanliness during the preparation of the food, one of the hypotheses that contribute to the occurrence of infection in the indigenous children in this survey due to the unhealthy conditions of some communities.²⁴

It is estimated that the statistical data on morbidities affecting the health of small indians in Colombia met the characteristics of the Brazilian peoples, reporting that illiteracy is an indicator for the occurrence of malnutrition, anemia and parasitosis; therefore, they are frequent cases and demonstrate an increase in these notifications in distinct ethnic groups.²⁵

It was found that the prevalence of the dental decay issue indicates a concern with the oral health of those native peoples. The importance of these services was recognized, since access to dental treatments, guidance and information promotes quality of life for those people who are in remote areas or urban centers, a practice that minimizes oral complications and ensures that the problem is reduced.⁹

It has been demonstrated that data on the incidence of tuberculosis are significant and ratify the presence of this problem in indigenous populations in the Legal Amazon. From this perspective, it was observed that the epidemiological profile of those communities contributes to the spread of

the disease due to unfavorable economic conditions and precarious basic sanitation present in some villages. ²⁶⁻²⁷ The causes of the presence of such diseases were inferred to be the imbalance of territorial invasions in the Legal Amazon and the insertion of life habits of non-indigenous people in urban and rural areas. ^{5,28}

It was observed in this study that gender representativeness was illustrated by Brazilian indigenous women, by the power and participation of women in politics and in work in an indigenous community in the state of Mato Grosso do Sul. The experiences of those people were compared to a different profile of women who take care of their families, but who seek to attend universities, becoming breadwinners and encouraging their children to attend higher education.²⁹

In the field of indigenous health, a debate on the model of basic care was held, and this survey demonstrated the concern about the resolubility of this system. It has been suggested, in practice, that the excellence of these services requires an intercultural view of the National Policy for the Health Care of Indigenous Peoples, so that the human resources and techniques used are effective.³⁰⁻³¹

The model of differentiated attention to indigenous peoples is considered to be articulated and integrated to the services of the National Health System (SUS), with the actions that are developed having the objective of guaranteeing and defending access based on the ethnic, cultural, geographic and epidemiological specificities of those different native groups. Thus, for the flow of services to take place, it is necessary to train indigenous and non-indigenous professionals, in addition to respecting the suggestions of indigenous representatives for the development of an organized and active management.³²

It is noteworthy that the specialized care, the actions and health promotions are performed by the Multidisciplinary Team of Indigenous Health (MTIH). It is pointed out that these professionals carry out a set of activities in different contexts. However, this area is highlighted as revealing some misadventures due to the work environment, and the experiences of the MTIH are made up of a lack of material resources, a difficulty in communication and of cultural and geographic peculiarities, aspects that interfere in the assistance to those individuals, reflecting the fragility of the system that manages and provides the resources to those areas.^{30,33}

The IHAs stood out for their dedication as intermediaries during the appointments. It is important to emphasize that their services are of paramount importance so that, in the course of the assistance in the villages, the flow of actions can be streamlined and optimized. It is considered important to value the knowledge about health and well-being of the indigenous people, so that they can decide and participate in issues that directly affect their way of life.³³⁻³⁴

The limitations of this ILR include the scarcity of up-to-date studies, the few productions of scientific research on indigenous health in the Legal Amazon, and the fact that only two databases and a virtual library were consulted. It is emphasized that the methodology precisely followed the eligibility criteria, but the possibility that some studies were not included at the time of the selection of articles is not ruled out.

It is argued that the synthesis of the evidence elucidated in this ILR may trigger new research on indigenous health in the Legal Amazon in order to get to know the adversities faced by those populations, aiming to contribute to the quality of health service assistance and set off measures to prevent diseases and promote the health of those individuals, easing the problems mentioned in this review and controlling the diseases that affect some regions of the Legal Amazon.

CONCLUSION

It is concluded that this review allowed the compilation of scientific evidence on the health of indigenous peoples in the context of the Legal Amazon. The ILR method was found to have been essential during the development and analysis of the obtained results, in relation to which, regarding the characterization of the publications of the analyzed articles, a predominance of authors with PhD degrees was observed, the Federal University of São Paulo being the institution of origin to which most articles are linked.

It should be noted that there are few studies in the period between 2015 and 2018 that conceptualize indigenous health in the context of the Legal Amazon; however, it is clear that the population growth attracted the attention of researchers to develop projects and studies on those populations. The states of Mato Grosso and Amazonas stood out for the largest number of developed studies; however, there is a shortage of studies published in other states of the Legal Amazon, showing the need for new research on the reality of those peoples. Studies with a quantitative approach were the most frequent in the methodological design of the analyzed articles.

As for the diseases that have affected those indigenous populations over the years, the fact that tuberculosis is still one of the public health problems that most affect them is emphasized. This could be eased with techniques such as health education and the intensification of preventive campaigns, as well as the identification of factors that directly interfere with the growth in cases of the disease in those regions.

In the analysis of the studies, the choice of different themes was verified; however, the issue of the profile of the model of specialized attention services to indigenous health is still a theme that raises questions about the operation process of the programs and about the services of health professionals. Throughout these articles, the essence of indigenous health in Brazil was suggested,

based on three pillars: the cultural one, defending the respect for the diversity of each individual and the inclusion of the traditional knowledge of the representatives of the indigenous communities; the epidemiological profile, which seeks the prevention of diseases and the promotion of health in accordance with the context of each village; and the geographical one, aiming to meet the needs of any population, seeking methods that mitigate the distance from advanced support services.

Finally, it should be observed that the ILR strictly followed the methodological stages during the selection of inclusion and exclusion criteria alongside the objective of getting to know the scientific evidence in the national literature on indigenous health in the context of the Legal Amazon.

CONTRIBUTIONS

All authors have contributed equally to the conception, analysis and interpretation of the survey, to the writing and critical review with intellectual contribution, as well as to the approval of the final version.

CONFLICT OF INTEREST

Nothing to declare.

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