



ARTICLE ORIGINAL

MULTIPROFESSIONAL HOSPITAL CARE FOR CHILDREN WITH KAWASAKI DISEASE

ASSISTÊNCIA HOSPITALAR MULTIPROFISSIONAL À CRIANÇA COM DOENÇA DE KAWASAKI

ASISTENCIA HOSPITALARIA MULTIPROFESIONAL A NIÑOS CON ENFERMEDAD DE KAWASAKI

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ABSTRACT

Objective: to map the multiprofessional hospital care for children with Kawasaki Disease.

Method: this is a scoping review, conducted from the Journal Portal of the Coordination for the Improvement of Higher Education Personnel, using seven databases as sources of collection. Articles, dissertations and theses produced by Portuguese, English and Spanish-speaking researchers that addressed the multidisciplinary care to the health of children with Kawasaki Disease were analyzed.

Simple descriptive statistics were used to analyze the data. **Results:** the final sample consisted of 16 studies. The following were cited as members of the multiprofessional team: nurses, physicians, speech therapists, psychologists, dentists and physical therapists. It was pointed out that the nurse is a professional who develops his work in direct and indirect assistance to children with Kawasaki Disease. It was emphasized the importance of all members of the team knowing the symptoms of the disease, because, being a disease with clinical identification, all caregivers are involved in this process. **Conclusion:** the presence of six professionals mentioned in the multiprofessional hospital care to children with Kawasaki disease was observed. However, few studies describing the integrated functions within a multidisciplinary team were noted. The physician and the nurse were cited more.

Descriptors: Mucocutaneous Lymph Node Syndrome; Patient Care Team; Hospitals; Child Health; Child; Nursing.

RESUMO

Objetivo: mapear a assistência hospitalar multiprofissional à criança com Doença de Kawasaki.

Método: trata-se de uma *scoping review*, realizada a partir do Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, utilizando, como fontes de coleta, sete bases de dados. Analisaram-se artigos, dissertações e teses, produzidos por pesquisadores de línguas portuguesa, inglesa e espanhola, que abordassem a assistência multiprofissional à saúde da criança

com Doença de Kawasaki. Utilizou-se a estatística descritiva simples para a análise dos dados. **Resultados:**constituiu-se a amostra final de 16 pesquisas. Citaram-se como membros da equipe multiprofissional: enfermeiro; médico; fonoaudiólogo; psicólogo; odontólogo e fisioterapeuta. Pontua-se que o enfermeiro é um profissional que desenvolve o seu trabalho na assistência direta e indireta à criança com Doença de Kawasaki. Ressaltou-se a importância de todos da equipe saberem a sintomatologia da doença, pois, sendo uma enfermidade com identificação clínica, todos os assistencialistas estão envolvidos nesse processo. **Conclusão:**observou-se a presença de seis profissionais citados na assistência hospitalar multiprofissional à criança com aDoença de Kawasaki. Notaram-se, entretanto, poucos estudos que descrevessem as funções integradas dentro de uma equipe multidisciplinar. Citaram-se mais o médico e o enfermeiro.

Descritores: Síndrome de Linfonodos Mucocutâneos; Equipe de Assistência ao Paciente; Hospitais; Saúde da Criança; Criança; Enfermagem.

RESUMEN

Objetivo: mapear la atención hospitalaria multiprofesional para niños con Enfermedad de Kawasaki. **Método:** se trata de una **scoping review** realizada desde el Portal de Revistas de la Coordinación para el Perfeccionamiento del Personal de Educación Superior, utilizando siete bases de datos como fuentes de recolección. Se analizaron artículos, disertaciones y tesis, elaborados por investigadores en portugués, inglés y español, que abordaron la atención multidisciplinaria de salud de los niños con Enfermedad de Kawasaki. Se utilizó estadística descriptiva simple para el análisis de datos. **Resultados:** se constituyó la muestra final de 16 investigaciones. Se mencionaron como miembros del equipo multiprofesional: enfermero; médico; fonoaudiologo; psicólogo; dentista y fisioterapeuta. Se destaca que el enfermero es un profesional que desarrolla su labor en la asistencia directa e indirecta a niños con Enfermedad de Kawasaki. Se enfatizó la importancia de que todos los integrantes del equipo conozcan los síntomas de la enfermedad, ya que al ser una enfermedad con identificación clínica, todos los asistentes están involucrados en este proceso. **Conclusión:** se observó la presencia de seis profesionales mencionados en la atención hospitalaria multiprofesional de niños con Enfermedad de Kawasaki. Sin embargo, se han señalado pocos estudios que describan las funciones integradas dentro de un equipo multidisciplinario. Se mencionaron más al médico y el enfermero.

Descriptores:Síndrome MucocutáneoLinfonodular; Grupo de Atención al Paciente; Hospitales; Salud del Niño; Niño; Enfermería.

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INTRODUCTION

Kawasaki Disease (KD) is known to be a generalized systemic vasculitis affecting small and large blood vessels, with a predilection for coronary arteries. It is the second leading cause of vasculitis in children under the age of five. It is configured, in developed countries, as the main cause of acquired heart disease and the second in developing countries, second only to rheumatic fever.^{1,2} It is a disease that occurs worldwide and has a higher prevalence in the Asian population, whether or not they reside on the Asian continent, suggesting a genetic predisposition.^{3,4}

KD was first described by Tomisaku Kawasaki in 1967, but the cause of the disease was not discovered despite clinical (self-limiting febrile illness) and epidemiological factors (seasonality, outbreaks) leading to the idea of an infectious agent.^{3,5} Thus, through infection, a super-antigen is formed, leading to an abnormal immune response in genetically susceptible individuals.^{3,6}

Because there is no specific complementary test, KD is a difficult pathology to diagnose, due to the similarity of the signs and symptoms of common childhood conditions. Therefore, it is informed that the investigation is clinical based on the criteria established by the American Heart Association (AHA) and the European League Against Rheumatism/Pediatric Rheumatology European Society (EULAR/PRES).⁷ Signs and symptoms are based on the presence of fever lasting five or more days and associated with four or five other criteria: bilateral non-exudative conjunctivitis; cervical lymphadenopathy; alteration of the extremities; polymorphous exanthema and alteration in the mouth (erythema, edema and cleft lip, hyperemia and hypertrophy of the lingual papillae, the strawberry tongue).⁸ It is noted, however, that there is incomplete or atypical KD, which is

characterized by the patient presenting with unexplained fever with two or three other medical findings of KD.^{5,7}

The multi-professional approach contributes to the care, identification, and treatment of KD with a broader view, giving patients and families real knowledge about all phases of the disease and assistance within each of its specificities.⁹

It is important, therefore, that the health professional has knowledge of the clinical findings and of the existence of the incomplete/atypical form in order not to have a delay in the diagnosis and the therapy to be started early in order not to generate greater complications.⁶

It becomes crucial, thus, as a characteristic of teamwork, a care plan common to all health professionals, which includes language, objective and proposals, through a communication relationship and the execution of technical interventions.¹⁰

It is known, moreover, that many families search the Internet to understand about the disease, so it is up to the multi-professional team to guide the parents about the changes that may occur in the child, such as: skin abnormalities; behavioral changes; arthritis and loss of appetite.¹¹

It is noteworthy, in view of the above, with the scope of knowing the multidisciplinary hospital care to the health of the child with KD, the interest in knowing which professionals are involved in this process and the care provided by them. Therefore, the research question is: "What is the multi-professional care provided in a hospital to children with KD?"

OBJECTIVE

To map the multi-professional hospital care for children with Kawasaki Disease.

METHOD

This is a scoping review guided by the recommendations of the JBI Institute Reviewer's Manual,¹² according to the theoretical framework proposed by Arksey and O'Malley ¹³, presented according to the recommendations of PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. The aim of this type of review is to map the main concepts that support a particular area of knowledge, examine the extent, scope, and nature of the research, summarize and disseminate research data, and identify gaps in existing research.¹²

The study population consisted of articles, dissertations and theses produced by Portuguese, English and Spanish-speaking researchers, which were configured as research addressing multidisciplinary care in KD.

For the formulation of the question, the PCC strategy was used, as described: P (Population) - Health professionals; C (Concept) - Care/child/Kawasaki disease; C (Context) - Hospital. Therefore, the question that guided the scoping review was the following: "What is the multi-professional hospital care provided to the child with KD?"

A preliminary search in the Scientific Electronic Library Online (SciELO), Latin American and Caribbean Health Sciences Literature (LILACS) and the National Library of Medicine (PubMed) databases was performed and no reviews with a similar theme were found, thus justifying the search.

Thus, the research was conducted from the Periodical Portal of the Coordination for the Improvement of Higher Education Personnel (CAPES), from the Federated Academic Community (CAFe), with access provided by the Federal University of Rio Grande do Norte (UFRN), in August 2019, to the following databases: Cochrane CENTRAL; PubMed; CAPES Catalogue of Theses and Dissertations; Web of Science; SCOPUS; LILACS; SciELO; Virtual Health Library (VHL); Nursing Database (BDENF); Science Direct; Scientific Electronic library (MEDLINE). The Google Scholar tool was also included.

The search was conducted by combining the descriptors extracted from the Descriptors in Health Sciences (DeCS), which corresponded to the three initial elements of the PCC mnemonic of this research - (P) Healthcare Professional AND (C) Assistance; children; Disease Kawasaki AND (C) Hospital. In addition, we used the filter "subject available" in the databases themselves to select the research corresponding to the theme. The combination of descriptors and filters used for each database was adapted in order to obtain the largest quantity of material available on the theme.

The study included articles, dissertations, and theses produced in Portuguese, English, and Spanish and published in full online, with no time limit stipulated. The exclusion criteria eliminated were editorials and studies that did not present abstracts and full text online.

A total of 314 publications were found without filters, and 23 were excluded for being duplicates. With the application of the filter in the databases, 124 studies were found. The title and abstract of all identified studies were evaluated. Afterwards, the selected publications were retrieved for a complete reading in their entirety, and the data were extracted. In this last step, 108 studies were excluded for not presenting the details of multidisciplinary care in the KD (Figure 1).

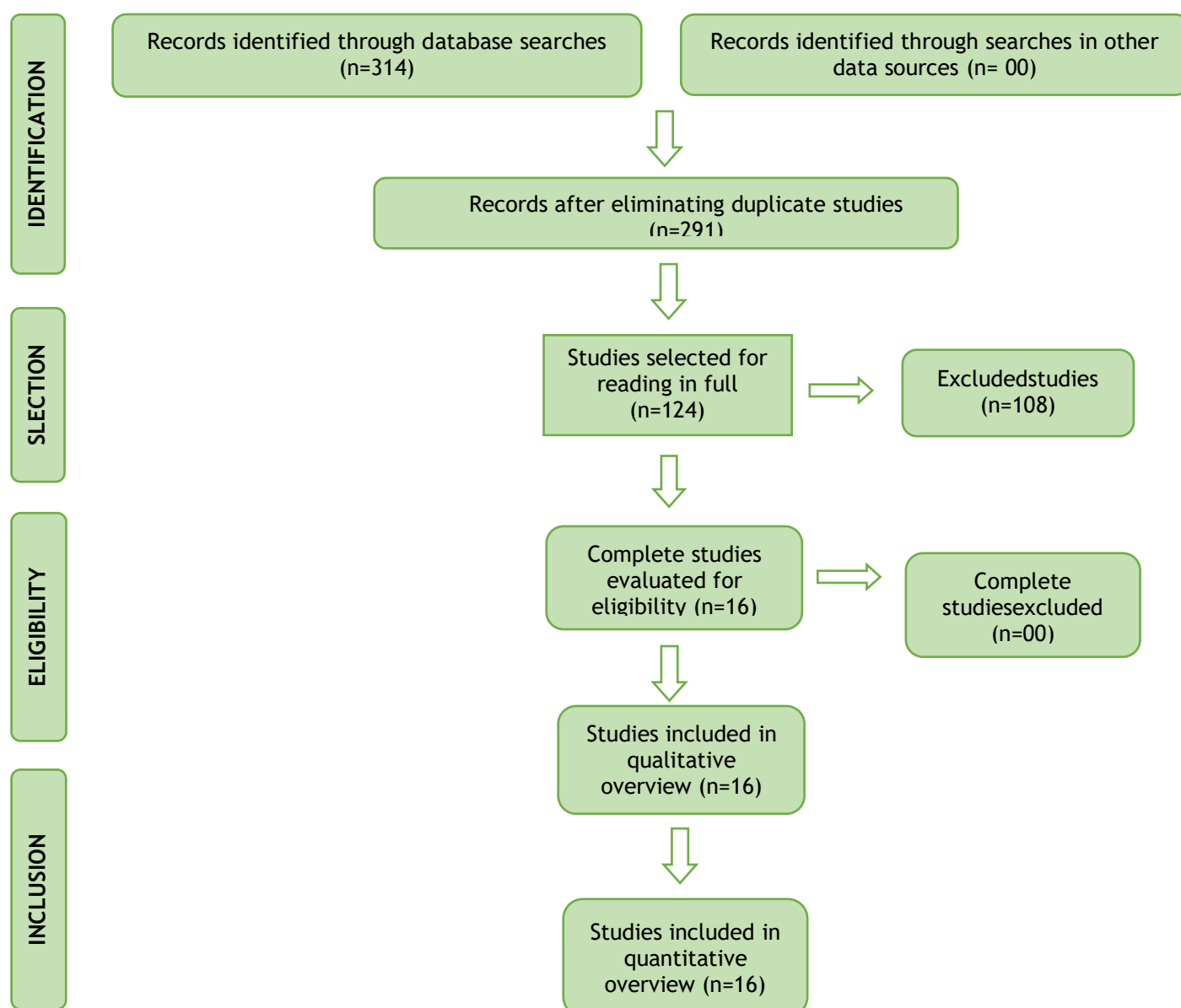


Figure 1. Flowchart of study selection adapted from the Preferred Reporting Items Extension for Scoping Reviews (PRISMA-ScR). Natal (RN), Brazil, 2020.

The 16 studies included in the final sample were analyzed based on the following data: type of study (if article, dissertation or thesis); year of publication; country of origin; objective; study method; research institution; author's training; multidisciplinary care in KD; nurse's role in KD care; physician's role in KD care; dentist's role in KD care; speech therapist's role in KD care and role of other health professionals in the care of children with KD.

The data was analyzed using simple descriptive statistics, but no ethical review was required because the studies were in the public domain.

RESULTS

It is exposed that, from the quantitative of 314 researches initially identified in the databases, the final sample was 16 (5.09%) results that described the multidisciplinary care to the health of children with KD (Figure 1).

The final sample consisted of 16 studies: two (12.5%) doctoral theses and 14 (87.5%) articles. It is described that the temporal dimension of the selected studies varied from 2002 to 2019, with the largest quantity of published research, three, in the year 2011 (18.75% each).

It should be added that the authors of the analyzed studies came from four different undergraduate programs. It is informed that seven (43.75%) of the study's authors had a degree in Nursing, and the other fields of study were Medicine (four research studies; 25%); Dentistry (three research studies; 18.75%) and Speech Therapy (two research studies; 12.5%).

The analyses were developed in 14 research institutions, with the Federal University of Brasilia standing out (three research studies; 18.75%), while the others were developed in different institutions from several countries (Figure 2).

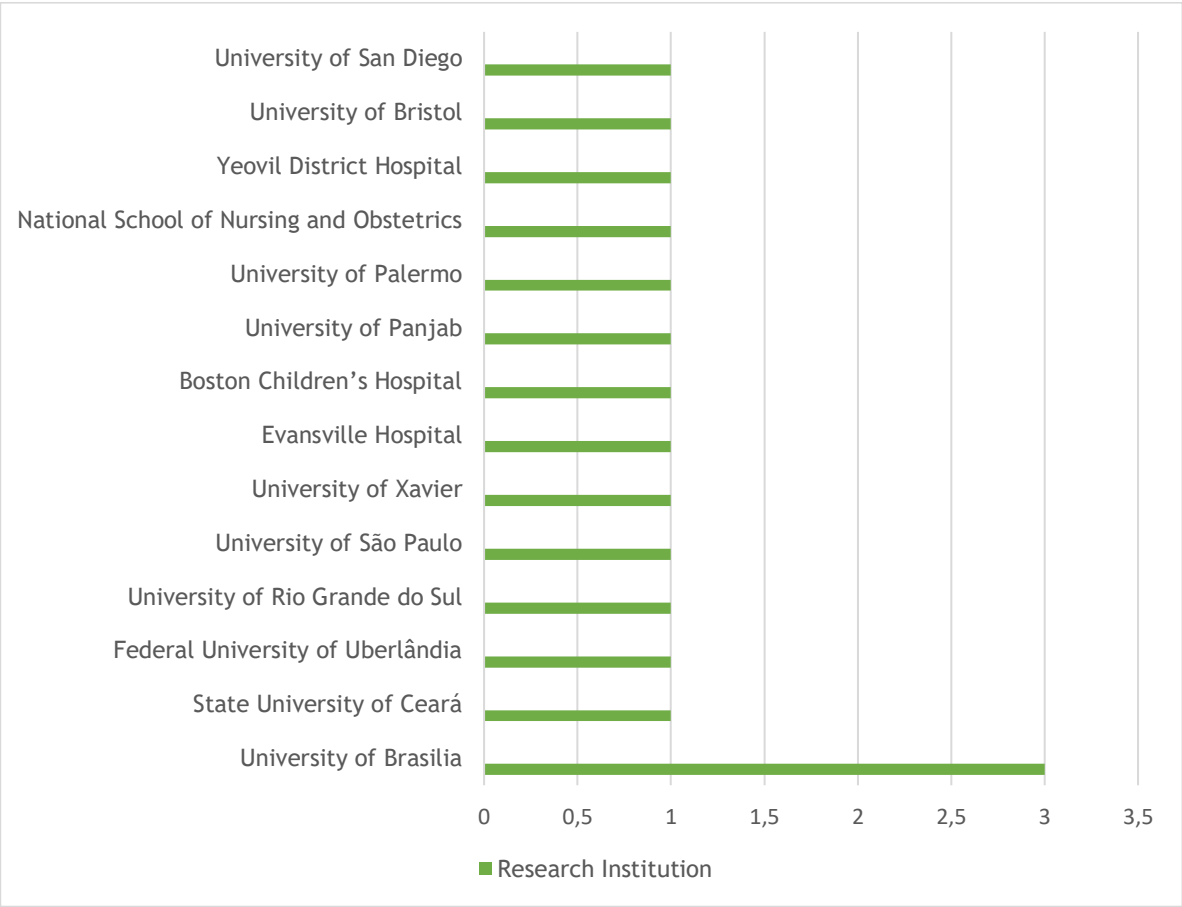


Figure 2. Chart of research institutions (absolute number). Natal (RN), Brazil, 2019.

When observing the countries of the entities where the studies were developed, Brazil (seven studies; 43.75%) and the United States (four studies; 25%) stood out, while India, England, Italy, Mexico and the United Kingdom had one study each (six studies; 25%).

Figure 3 shows the characterization of the publications (P) included in the scoping review according to the purpose, type and study population. They are represented by the letter "P", followed by the sequential number, ranging from one to 16, the total of the final sample.

Publication (P)	Objective	Type	Population
P1 ¹⁴	Illustrate a serious complication of KD.	Case study	One year and seven months old boy diagnosed with KD.
P2 ¹⁵	Identify significant changes in the child's psychological health.	Field research	Patients aged three to 18 years diagnosed with KD.
P3 ¹⁶	Analyzing oral mucositis in an infant affected by KD.	Case study	Three-Month-Old Boy.
P4 ⁸	To evaluate the prevalence of sensorineural hearing loss in patients with KD.	Prospectivestudy (clinicalcohort)	40 children aged two months to 11 years diagnosed with KD.
P5 ⁹	To address multidisciplinary care for the care of patients with KD.	Case study	One-year-old girl diagnosed with KD.

P6 ¹⁷	To describe the clinical case of a child with KD.	Case study.	Eight-month-old boy with a diagnosis of KD.
P7 ¹⁸	To evaluate the clinical manifestations and laboratory findings of KD in a group of children followed up over a period of up to ten years.	Prospectivestudy (clinicalcohort)	301 patient diagnosed with KD from January 2007 to December 2016.
P8 ¹⁹	To draw attention to the complications that may arise at any stage of KD, to the risk factors contributing to the onset of these complications, and to the possible sequelae of the disease, whether transient or permanent.	Prospectivestudy (clinicalcohort)	Children from two months to 11 years with a diagnosis of KD.
P9 ²⁰	To present a clinical case and review the existing literature on Kawasaki Syndrome.	Case study	Four-year, seven-month-old boy diagnosed with KD.
P10 ²¹	To describe the communicative, motor and cognitive performance of a girl diagnosed with KD.	Case study	Four-year, six-month-old girl diagnosed with KD.
P11 ²²	To accelerate the diagnosis and treatment of patients with KD.	Case study	Four-year-old boy diagnosed with KD.
P12 ²³	To understand the importance of nursing care in KD.	Literature review	Databaserelatedto KD.
P13 ¹¹	Descrever a importância do diagnóstico precoce da DK.	Case study	Three-year-old boy diagnosed with KD.
P14 ²⁴	Know the importance of dental care and treatment in KD.	Case study	Eight-year-old girl diagnosed with KD.
P15 ²⁵	Optimize the time to diagnosis and treatment of children with KD.	Literature review.	Maindatabases.
P16 ²⁶	Discuss the signs and symptoms of typical versus atypical KD.	Case study	Five-year-old boy diagnosed with KD.

Figure 3. Characterization of the publications according to the objective, type and study population (n=16). Natal (RN), Brazil, 2019.

P7 was noteworthy for the time limit in which the collection occurred, between December 2007 and January 2016, evaluating 301 children, 183 males (60.79%) and 118 females (39.20%) and for having been performed in a children's hospital reference for KD in Brazil.

In the case and prospective studies (P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P13, P14, and P16), 531 children were examined: 192 (36.15%) females and 339 (63.85%) males. In addition, the ages ranged from two months to 18 years, with a mean age of four years, the age range of higher incidence of the disease.

The members of the multi-professional team were mentioned with their actions within the specificities of their training and they are: nurses (8; 50%) always acting together with the physician; speech therapist (4; 25%); psychologist (4; 25%); dentist (3; 18.75%) and physical therapist (1; 6.25%) (Figure 4).

It is observed, regarding multidisciplinary care in KD, that the practice of doctors is the fundamental function of the health area in the treatment of this disease. It is revealed that, in 100% of the articles, the profession was cited. In this context, the physical examination was highlighted: the main tool for the clinical diagnosis of KD, since there is no specific test to detect the disease.

Team Members	Physician (100%) Nurse (50%) Speech Therapist (25%) Psychologist (25%) Dentist (18.75%) Physiotherapist (6.25%)
Type of study	Literature review (12.5%) Case study (62.5%) Prospective study (clinical cohort) (18.75%)
Signs and symptoms	Persistent fever (71.42%) Conjunctivitis (50%) Polymorphic exanthema of the trunk (50%) Erythema and edema of extremities (42.85%) Strawberry tongue (42.85%) Erythematous and swollen lips (42.85%) Cervical lymphadenopathy (42.85%) Erythema of the oral mucosa (28.75%) Periungual scaling (14.28%)
Treatment	Intravenous gamma globulin (IVIG) 2g/kg/day (37.5%) Endovenous gammaglobulin without dosage (25%) Aspirin 3 to 5 mg/kg/day associated with IGIV (12.5%) Aspirin 80 to 100 mg/kg/day associated with IGIV (12.5%) They did not mention the therapeutic resource (37.5%)
Lab results	CBC (35.7%) Leukogram (49.98%) Platelets (49.98%) Erythrocyte sedimentation rate (35.7%) C-reactive protein (35.7%)

Figure 4. Summary chart of findings according to team members, type of study, signs and symptoms, treatment and laboratory results. (n=16). Natal (RN), Brazil, 2019.

It can be noticed the diagnosis made by clinical criteria according to the standards of the American Heart Association (AHA), an American association that aims to reduce cardiovascular diseases, which appears in most studies (12; 75%), followed by the Atlanta Center for Disease Control (1; 6.25%). It was obtained, by P3 (1; 6.25%), a late and wrong identification, leading to death, and P6 and P16 (2; 12.5%) did not inform what they based themselves to diagnose the disease.

It is detailed that, of the 16 results, two (12.5%) are literature reviews and bring the signs and symptoms proposed by the AHA; in the remaining studies (14; 87.5%), the clinical manifestations that were most observed by physicians were: persistent fever (ten; 42%); conjunctivitis (seven; 50%); polymorphic exanthema on the trunk (seven; 50%); erythema and edema of extremities (six; 42.85%); strawberry tongue (six; 42.85%); erythematous and edematous lips (six; 42.85%); cervical lymphadenopathy (six; 42.85%); oral mucosal erythema (four; 28.57%) and periungual desquamation (two; 14.28%).

The following are observed with regard to laboratory findings requested by the physician: complete blood count (P1, P4, P5, P14 and P16); white blood cell count (P1, P3, P5, P7, P11, P14 and P16); platelets (P1, P4, P5, P7, P8, P14 and P16); erythrocyte sedimentation rate-VHS (P1, P4, P5, P8 and P9) and C-reactive protein-PCR (P1, P4, P9, P11 and P14). It turns out that the serologies that appear requested to differ are: toxoplasmosis (P1); mononucleosis (P2); rubella (P1); cytomegalovirus (P1 and P16) and tuberculosis (P14).

It is specified that the echocardiogram appears as the imaging exam most requested by medicine (11; 68.75%), followed by the electrocardiogram (five; 31.25%) and chest X-ray (two; 12.5%).

It is complemented that the treatment most used by the physicians was intravenous gamma globulin (IVIG), cited in the dose of 2g/kg/day (six; 37.5%) and without dosage (four; 25%). The IVIG was always associated with aspirin, which appears from: three to 5mg/kg/day (two; 12.5%); 80 to 100mg/kg/day (two; 12.5%) and without dosage (six; 37.5%); six articles (37.5%) did not mention which therapeutic resource was used.

Among the complications that most appear are: coronary aneurysm (six; 37.5%); sensorineural hearing loss (five; 31.25%); behavioral sequelae (five; 31.25%); facial paralysis (four; 25%); ataxia (two; 12.5%); Beau's nails (two; 12.5%), among others.

It is noted that nurses are professionals who develop their work in direct and indirect assistance to children with KD. Their performance was described with the following aspects: with the Nursing team (P5, P6, P11, P12, P13, P15 and P16); in the coordination of multi-professional teams (P5); assisting the physician in the clinical diagnosis (P5, P11 and P15) and assembling and executing the patient's care plans. These plans include: monitoring vital signs (P5, P6, P11, P12, P13, P15, and P16); puncturing peripheral venous access (P5); assessing nutritional risk and dehydration (P12 and P14); the administration of medication according to medical prescription (P5, P6, P11, P12, P13, P15, and P16); the verification of possible adverse reactions (P13) and the orientation to parents about the disease in all its aspects and phases (P5, P11, P12, P13, P15, and P16). It was observed, in two articles (P6 and P12), the adoption of the Systematization of Nursing Care (SNC).

Neurosensory hearing loss is assessed and measured by the speech pathologist as a complication of DK. It is mentioned, in article P4, the examination for auditory acuity by means of the acoustic emittance test and, in P1 and P7, through Brainstem Evoked Responses Audiometry (BERA) - Brainstem Evoked Potential Audiometry. It was observed in P10 that the professional also works with the communicative, motor, and cognitive performance of the child by applying the Communicative Behavior Observation (OCC), Early Language Milestone Scale (ELMS), Gesell and Amatrauda Behavioral Development Scale (EDCGA), and Operationalized Portage Inventory (OPI).

It is noticed that the dentist appears (P3, P9 and P14) to help diagnose KD during their consultation, identifying some typical signs and symptoms of the disease, such as "raspberry" tongue (redness of the tongue and hypertrophy of the lingual papillae), erythema with cleft lip and erythema in the oral mucosa. The professional is also mentioned to pay attention to the use of antimicrobial in patients with the disease before any dental procedure (P9 and P14).

The other professionals mentioned were the physical therapist (P7) and the psychologist (P2, P4 and P7), with the physical therapist appearing to act in the subacute phase of the disease, when the

complication of facial paralysis appears, and only P7 showed that the intervention of the professional was necessary in this complication. The other studies (P4 and P1) showed that paralysis is treated and reversed after administration of intravenous immunoglobulin. It was found that several behavioral sequelae are associated with KD and, when observed, should be referred for evaluation and treatment with a psychologist, the most commonly mentioned being: hyperactivity; decreased concentration; aggressiveness; emotional instability, and others.

DISCUSSION

A difference was observed in the number of publications by countries, with Brazil appearing with seven publications and the USA with four. KD is recognized, however, as a public health problem in developed countries, and is not given due importance in underdeveloped countries.^{27,28} In general, the incipency of studies and the need to promote further research on the subject are denoted.

In the Brazilian scenario, the P7 study, carried out with 301 children diagnosed with KD over a period of ten years, stands out, showing that this disease has become more frequent in the country. The scarcity of knowledge about KD in Brazil and Latin America reveals the need for further studies on the incidence, morbidity, and mortality of the disease in these locations.¹⁸

It is understood that KD is a serious disease that affects children in several countries. Thus, it is indicated that members of health care, in addition to the Ministry of Health, be alert to the growing presence of this serious condition in Brazil,^{18,28} It can have serious consequences, and professionals must be trained and aware that this disease does not only affect Asians. It was emphasized by the researchers that 3,500 children in the United States are hospitalized annually because of KD.^{27,29}

It was observed, in Brazil, with the limitation of studies on the subject, that the studies are poor in information and few have used the AHA criteria for diagnosis.²⁹ In view of this information, within the scope of this mapping, 71.42% of the studies in Brazil followed the identification proposed by the AHA.

A predominance of males was also observed, which was observed in a review study of case reports of children diagnosed with KD from 1999 to 2019 in Brazil. Regarding age, the results showed a variation from two months to 18 years, with the mean age of four years showing the highest incidence.²⁹ It should be noted that this condition is atypical in people over five years of age, with approximately 85% in the younger age group.^{3,7}

It is informed that the productions written by nurses occupied 50% of the studies. It is noteworthy, in the P5 study, the care provided by nurses to children with KD in primary care, emergency room, wards, and intensive care units.⁹

The multidisciplinary approach becomes fundamental for the care of patients who have KD, consisting of a joint work modality that represents a reciprocal association between the technical

activities and the communication of health members from different areas.⁹Since there is no specific laboratory test to identify KD, this approach is based on signs and symptoms. It is believed that when attending a child with symptoms of the disease, the professional who recognizes these manifestations will refer the patient to the doctor and treatment will be started more quickly.

KD represents a challenge for the pediatrician working in Brazil, as it is an uncommon disease that requires specific intervention during the critical period, with medication being initiated in an attempt to avoid serious or fatal sequelae. At the same time, it is noticed that it has a common clinical presentation with other febrile infectious diseases that are prevalent in childhood, making its diagnosis even more difficult.¹⁴Atypical KD is presented with symptoms uncommon from incomplete KD, and it is essential to differentiate the latter, which presents classic symptoms, from the former, which is characterized by enlargement of the liver, sensorineural hearing loss, and jaundice.³⁰

It can be observed as to the interventional guidelines of nurses reported in the studies: the assistance to the doctor in identifying clinical manifestations; the assembly and implementation of the patient's care plan; the administration of medication according to medical prescription and guidance to parents. It becomes necessary the training of nursing professionals so that the SNC, with the identification of diagnoses and implementation of interventions, provides an integral and effective care with the improvement of the patient's clinical picture.¹⁷

During the follow-up of children with KD, it is important that at least one audiological evaluation with a speech therapist be routinely performed, since transient or recurrent sensorineural hearing loss appears in some clients with this pathology, and this complication can be diagnosed early.¹⁴This finding is in agreement with a research presented in P4, carried out in a university hospital in Brazil with a total of 40 patients, with ages ranging from two months to 11 years, which identified that sensorineural hearing loss occurred in most children.⁸

It is warned that after the acute phase of KD, relevant behavioral sequelae may appear, and the pediatrician should, when necessary, refer the child to a psychologist.¹⁵In theory, these consequences should be analyzed in greater detail in future research, using neuropsychiatric tests in order to rule out other possible causes of this behavior. The authors found, in the P8 study, based on questionnaires evaluating these findings, 20% of the patients with these alterations. In both studies, conduct problems (aggressiveness, hyperactivity, and argumentative behavior) were described as predominant.^{15,19}

The case study presented in P9, conducted with a four-year-old male child, indicates the relevance of early diagnosis of KD.²⁰In P14, this relevance is reaffirmed and it is added that dental surgeons should be aware of the oral manifestations of this disease, which can help in the correct identification. It is also emphasized that dental care to this patient requires specific precautions in

an attempt to prevent comorbidities associated with KD.²⁴It is observed, within the scope of physical therapy, the improvement of prognosis, and may help in the length of hospital stay.³¹

It is noteworthy that the only study that aimed to discuss multidisciplinary care to patients with KD was P5, which highlighted the part of Medicine and Nursing and their specificities in primary care and hospital. Physiotherapy, psychology, and speech therapy were also mentioned in the tertiary care setting, in addition to technical professionals from the following sectors.¹⁴It is expected, by the insertion of the work of professionals from several areas in emergency, an improvement of the service, treating the patient integrally.^{31,32}

It is pointed out that many diseases can have their symptoms minimized by the association of the triad: correct diagnosis, early therapeutic interventions, and joint multi-professional care. This care, which includes the presence of the dental surgeon, integrating him into the care team, denotes the importance of further studies in order to conduct the management of patients with KD with greater clarity and better results.

It is inferred that when there is intervention by a multi-professional and interdisciplinary team, hospital care, with professionals who understand the suffering characteristic of the child with KD, brings benefits to the family and a good evolution for the patient.²Thus, teamwork provides an exchange of knowledge, and is also important in human relations, because it motivates health care workers to seek, in a correct way, the objectives of treatment.

As limitations of the research, it should be noted that it was initially proposed to evaluate most of the existing literature; however, there may be research published in other languages and indexing bases not included in this study, but referred to in the methodology. Thus, the results presented should be understood based on the context researched in this scoping review.

It has, as an implication for the Nursing area, the awareness of the professional nurse as a team leader, as well as the importance of his care role, enabling the promotion of changes in the practice that transforms the health care system. The nurse will be able to redefine his area of work and improve his performance during the service.

CONCLUSION

It was observed the presence of six professionals mentioned in the multi-professional hospital care to children with KD: physician; nurse; speech therapist; psychologist; dentist and physiotherapist. However, few studies describing the integrated functions within a multidisciplinary team were noted. The physician and the nurse were cited most often.

It is concluded that the results of this scope are useful for future research in the area, for the practice and for the formation of the multi-professional team. Thus, in order to make a difference in health care, it is essential to link the knowledge derived from research and from the practice of a

collective work modality, the result of the reciprocal relationship between multiple technical interventions and the interaction of professionals from different areas of health care through communication and cooperation.

CONTRIBUTIONS

All authors contributed equally in the conception of the research project, data collection, analysis and discussion, as well as in the writing and critical review of the content, with intellectual contribution, and approval of the final version of the study.

CONFLICT OF INTERESTS

Nothing to declare.

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