

THE IMPACT OF HEALTH EDUCATION ON THE COMPREHENSIVE MANAGEMENT OF KAWASAKI DISEASE

O IMPACTO DA EDUCAÇÃO EM SAÚDE NO CUIDADO INTEGRAL DA DOENÇA DE KAWASAKI

IMPACTO DE LA EDUCACIÓN EN LA ATENCIÓN INTEGRAL DE LA ENFERMEDAD DE KAWASAKI



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**Carmen Julia Cruz Lima¹, Alejandrina Montes Quiroz², Salvador Ruiz Bernés³,
Verónica Benítez Guerrero⁴, Martha Ofelia Valle Solís⁵, Octavio Islas Estrada⁶**

ABSTRACT

Kawasaki disease presents a major challenge to child health due to its capacity to cause serious cardiovascular complications and its far-reaching psychosocial impact on both children and their caregivers. Beyond the clinical dimension, this chapter examines the pivotal role of health education and behavior-modification strategies in enhancing early recognition, promoting effective self-care practices, and strengthening therapeutic adherence. From an educational standpoint, the chapter argues that improving caregivers' health literacy and practical skills significantly reduces diagnostic delays and supports timely decision-making—factors that directly contribute to the prevention of coronary aneurysms and other long-term sequelae. The discussion also reviews international models and programs that have demonstrated effectiveness through structured educational interventions, psychological support, mobile-health tools, and clear, family-centered communication. These components not only influence adherence-related behaviors but also alleviate anxiety, financial strain, and emotional burden among families. The chapter concludes that integrating health education, psychosocial support, and specialized clinical follow-up provides the most robust pathway to reducing inequities, enhancing quality of life, and ensuring comprehensive, sustainable care for children affected by Kawasaki disease.

Keywords: Therapeutic Adherence. Quality of Life. Health Education. Early Detection and Diagnosis. Kawasaki Disease.

¹ Master's Degree in Public Health. Universidad Autónoma de Nayarit. E-mail: carmencruzlima@uan.edu.mx
Orcid: <https://orcid.org/0000-0002-3915-0781>

² Dr. in Natural and Biopsychosocial Sciences. Universidad Autónoma de Nayarit.
E-mail: alejandrina.montes@uan.edu.mx Orcid: <https://orcid.org/0000-0002-9110-3691>

³ Dr. in Natural and Biopsychosocial Sciences. Universidad Autónoma de Nayarit.
E-mail: salvador@uan.edu.mx Orcid: <https://orcid.org/0000-0003-1957-8649>

⁴ Dr. in Education. Universidad Autónoma de Nayarit. E-mail: veronica.benitez@uan.edu.mx
Orcid: <https://orcid.org/0000-0002-0036-1784>

⁵ Dr. in Nursing Sciences. Universidad Autónoma de Nayarit. E-mail: martha.valle@uan.edu.mx
Orcid: <https://orcid.org/0000-0001-8772-6549>

⁶ Medical Surgeon. Universidad Autónoma de Nayarit. E-mail: 22008540@uan.edu.mx
Orcid: <https://orcid.org/0009-0009-8308-8637>

RESUMO

A doença de Kawasaki representa um desafio significativo para a saúde infantil, tanto pelo risco de complicações cardiovasculares quanto pelos efeitos psicossociais que impactam crianças e cuidadores. Para além do manejo clínico, este capítulo examina o papel central da educação em saúde e da modificação de comportamentos como estratégias essenciais para aprimorar a detecção precoce, promover práticas eficazes de autocuidado e fortalecer a adesão terapêutica. Sob uma perspectiva educacional, argumenta-se que o desenvolvimento das competências e do letramento em saúde dos cuidadores reduz de forma expressiva os atrasos diagnósticos e favorece decisões oportunas, contribuindo diretamente para a prevenção de aneurismas coronários e outras sequelas. O capítulo também analisa modelos e programas internacionais que demonstraram eficácia por meio de intervenções educativas estruturadas, suporte psicológico, uso de tecnologias móveis e comunicação clara e colaborativa entre a equipe de saúde e a família. Esses elementos não apenas influenciam positivamente os comportamentos relacionados ao seguimento clínico, mas também reduzem a ansiedade, o estresse financeiro e a sobrecarga emocional. Conclui-se que a integração entre educação em saúde, apoio psicossocial e acompanhamento especializado constitui a estratégia mais consistente para diminuir desigualdades, melhorar a qualidade de vida e garantir um cuidado integral e sustentável às crianças com doença de Kawasaki.

Palavras-chave: Adesão Terapêutica. Qualidade de Vida. Educação em Saúde. Detecção e Diagnóstico Precoces. Doença de Kawasaki.

RESUMEN

La enfermedad de Kawasaki representa un desafío relevante para la salud infantil por su potencial de generar complicaciones cardiovasculares y por las implicaciones psicossociales que afecta tanto a los niños como a sus cuidadores. Más allá del abordaje clínico, este capítulo analiza el papel central de la educación en salud y la modificación de conductas como estrategias para mejorar la detección temprana, promover prácticas de autocuidado y fortalecer la adherencia terapéutica. Desde una perspectiva educativa, se plantea que el fortalecimiento del conocimiento y las habilidades de los cuidadores reduce significativamente los retrasos diagnósticos y favorece decisiones oportunas, lo que impacta directamente en la prevención de aneurismas coronarios y otras secuelas. Asimismo, se examinan modelos y programas internacionales que han demostrado eficacia a través de intervenciones educativas estructuradas, apoyo psicológico, uso de tecnologías móviles y comunicación efectiva entre el equipo de salud y la familia. Estos elementos no solo modifican conductas asociadas al seguimiento médico, sino que también disminuyen la ansiedad, el estrés financiero y las cargas emocionales. El capítulo concluye que la integración de estrategias de educación sanitaria, acompañamiento psicossocial y seguimiento especializado constituye la vía más sólida para reducir inequidades, mejorar la calidad de vida y asegurar una atención integral y sostenible en la enfermedad de Kawasaki.

Palabras clave: Adherencia Terapéutica. Calidad de Vida. Diagnóstico Temprano. Educación en Salud. Enfermedad de Kawasaki.

1 INTRODUCTION

Kawasaki disease (KD) is an acute systemic vasculitis and is recognized as the leading cause of childhood-acquired heart disease in many developed countries. Its importance is not limited to these regions, as in recent years a progressive increase has been documented in Latin America, including Mexico (Singh, 2024; Álvarez-Orozco et al., 2017a). The fact that it predominantly affects children under five years of age poses a substantial public health challenge due to the potential cardiovascular complications it can cause.

The clinical approach to KD involves considerable complexity. Patients require hospitalization, specialized follow-up, and repeated imaging studies such as echocardiograms. In many cases, intravenous immunoglobulin (IVIG) in combination with high-dose aspirin is essential. This therapeutic scheme places a significant economic burden on both families and health systems, especially in countries where resources are limited (Wang et al., 2023).

The social dimension of the disease is also notorious. Affected children need ongoing medical checkups and temporary restrictions on physical activity, which impacts family dynamics. In low- and middle-income countries, the high cost of IVIG is a critical barrier to ensuring timely and equitable care (Rowley & Shulman, 2018).

The magnitude of the problem can be illustrated by international data. Japan, the country with the highest global incidence, reports 264 cases per 100,000 children under five years of age (Makino et al., 2019). In Canada, a study identified a total of 31,595 children under the age of two, with a sex ratio of 1.34 in favor of boys. The incidence rate per 100,000 children aged 0-4 years was 330.2 (371.2 in boys, 287.3 in girls) in 2015, and 309.0 (343.2 in boys, 273.2 in girls) in 2016. The number of cases peaked in January, and the age- and sex-specific rate was highest between 9 and 11 months, progressively decreasing with age (Robinson et al., 2022). In the absence of treatment, up to 25% develop coronary aneurysms. The average cost of hospitalization, including IVIG and echocardiograms, ranges from \$7,000 to \$10,000 (McCrindle et al., 2017). In the United States, the incidence is 19 to 25 per 100,000 children in this age group, with a rate of 4 to 6% of coronary aneurysms despite treatment. Between 2016 and 2018, annual hospital costs reached \$55 million (Robinson et al., 2022).

In contrast, in Mexico and Latin America, epidemiological information is more limited, with incidences of 8 to 15 per 100,000 children in referral hospitals. When diagnosis is delayed, up to 15% of patients have cardiovascular complications, and the cost per patient can exceed \$5,000 (Álvarez-Orozco et al., 2017a). Added to this is the difficulty of accessing IVIG, whose price ranges between \$2,000 and \$5,000 per cycle (Singh et al., 2024; Wang et

al., 2023). In resource-constrained settings, underreporting and diagnostic delays exacerbate the frequency of complications.

Consequently, KD should be considered not only a pediatric emergency, but also a priority public health challenge that reflects inequities in access to diagnosis and treatment. Its relevance derives from the combination of clinical, economic and social impact, which justifies its inclusion in the priority agenda of child health.

2 IMPACT ON THE QUALITY OF LIFE OF CHILDREN AND THEIR FAMILIES

The effects of KD extend beyond the acute phase and encompass both clinical and psychosocial consequences. The scientific literature has documented that children with a history of KD have up to 2.5 times the risk of alterations in their neurological development compared to the general population (Robinson et al., 2021). These problems include anxiety disorders, sleep difficulties, and neurobehavioral disturbances. In a population-based study from Taiwan with 2,441 patients followed for ten years, a higher prevalence of attention deficit and behavioral problems was reported, especially in those who developed coronary complications (Kuo et al., 2014).

The family impact is also relevant. In Brazil, a study of 87 caregivers found that more than 65% had high anxiety and almost half had depressive symptoms in the first six months after diagnosis, related to fear of coronary complications and frequent medical visits (Silva et al., 2021). In Mexico, it has been documented that IVIG expenditure can represent up to 60% of the family's monthly income, increasing economic and emotional stress (Álvarez-Orozco et al., 2017b).

The negative effects are also reflected in the school and social spheres. A multicenter study in South Korea reported that about 28% of children with KD experienced prolonged absenteeism during the first year after diagnosis, with repercussions on their socialization and academic performance (Kim et al., 2020).

Faced with these difficulties, psychosocial strategies have been tested and show encouraging results. In China, a clinical trial with 124 families showed that structured educational programs, combined with psychological support and digital reminders, reduced parental anxiety by 35% and improved treatment adherence by 40% (Li et al., 2021). Similarly, improvements in family quality of life have been reported in South Korea thanks to interventions based on psychological counseling and support groups (Kim et al., 2020).

These findings underscore the need for a comprehensive approach that is not limited to medical management, but also includes psychosocial support as an essential part of

treatment. Recognizing KD as a multidimensional problem allows us to measure its true impact on the lives of children and their families.

3 HEALTH EDUCATION AS A PREVENTIVE TOOL IN KAWASAKI DISEASE

Health education is a continuous and systematic process that seeks to provide people with information, skills, and values that allow them to make informed decisions for their well-being. Since the beginning of the 20th century, hygiene and vaccination campaigns have proven effective in reducing infectious diseases. Today, it is recognized as a central strategy not only for the prevention of communicable diseases, but also for the control of chronic diseases, the reduction of health costs, and the improvement of quality of life (World Health Organization [WHO], 2022).

In the context of KK, health education plays a key role in empowering caregivers, facilitating early identification of symptoms, and promoting timely seeking of medical care. This translates into a lower frequency of serious complications and a significant improvement in clinical outcomes (Zhao et al., 2024).

3.1 CONCEPTUAL APPROACH TO HEALTH EDUCATION.

A widely used model to understand the impact of educational interventions is the Knowledge, Attitudes, and Practices (KAP) model, developed in the 1950s and widely used in vaccination, HIV control, and malaria prevention campaigns (Launiala, 2009; Singh, 2022). This model states that the knowledge acquired through educational interventions generates positive attitudes that, in turn, translate into sustainable health practices.

In the case of KD, this model allows us to assess the level of health literacy of caregivers and their willingness to act in the face of the appearance of cardinal signs. Studies have shown that caregivers with greater knowledge about KD adopt preventive behaviors and better comply with medical follow-up (Zhao et al., 2024). In contrast, in Mexico, the lack of recognition of cardinal symptoms contributes to late diagnoses and a higher frequency of coronary aneurysms (Álvarez-Orozco et al., 2017a).

3.2 EARLY DIAGNOSIS AND DETECTION OF WARNING SIGNS.

Health education has a direct effect on the reduction of cardiovascular complications by promoting the timely detection of clinical signs. The following table summarizes the main diagnostic criteria, cardiovascular complications, and the relevance of timely diagnosis and treatment, essential information that should be part of health education programs aimed at caregivers and health professionals.

Table 1

Diagnosis, clinical manifestations, cardiovascular complications and relevance of early diagnosis and treatment in Kawasaki Disease

Appearance	Description	References
Clinical manifestations (main diagnostic criteria)	<ul style="list-style-type: none"> - Fever \geq 5 days (essential criterion). - Non-purulent bilateral conjunctivitis. - Changes in the lips and oral cavity: dry, cracked lips, "strawberry" tongue. - Polymorphous rash (various forms). - Alterations in limbs: edema, erythema or scaling in hands and feet. - Cervical lymphadenopathy (\geq1.5 cm). - Evolutionary phases: <ul style="list-style-type: none"> o Acute (1-2 weeks): high fever, irritability, increased risk of early coronary involvement. o Subacute (2-4 weeks): disappearance of fever, peeling of extremities, persistent risk of aneurysms. o Convalescence (weeks-months): resolution of symptoms, but possible coronary sequelae. 	Singh et al., 2024; Rodríguez-Zapater et al., 2018; McCrindle et al., 2017
Cardiovascular complications	<ul style="list-style-type: none"> - Coronary aneurysms: up to 25% without treatment; classified as small (<5 mm), medium (5–8 mm) and giant (>8 mm). Risk of thrombosis, rupture and heart attack. - Myocarditis: common in the acute phase, with transient ventricular dysfunction. - Valvular heart disease: mitral and aortic regurgitation. <ul style="list-style-type: none"> o Arrhythmias: in acute and chronic phases. o Long-term subclinical sequelae: arterial stiffness and endothelial dysfunction detected even 15 years later. 	Printz et al., 2020; Kobayashi et al., 2021; American Heart Association [AHA], 2017
Importance of early diagnosis	<ul style="list-style-type: none"> - Each day of delay in diagnosis increases the risk of coronary aneurysms. - In Mexico, diagnoses after the 10th day of fever aneurysms in 32% of cases; before the 7th day only in 5%. - Supporting markers: elevated CRP (>3 mg/dL), ESR (>40 mm/h). - Echocardiogram: coronary dilation (Z-score >2.5), aneurysms, ventricular dysfunction, valve regurgitation. 	Álvarez-Orozco et al., 2017b; Rodríguez-Zapater et al., 2018; McCrindle et al., 2017
Timely treatment	<ul style="list-style-type: none"> - Intravenous immunoglobulin (IVIG) + aspirin: ideal within the first 7–10 days of fever; reduces aneurysms from 20–25% to <5%. - Resistant cases (10%–15%): rescue therapies such as corticosteroids, infliximab, cyclosporine, plasmapheresis. 	McCrindle et al., 2017; Yamaji et al., 2022; Álvarez-Orozco et al., 2017b

- Prolonged cardiological surveillance with serial echocardiograms.
- Reduction of hospitalizations, invasive procedures, and economic/psychosocial burden when applied in a timely manner.

Source: Authors.

Similarly, education aimed at families must translate clinical information into accessible messages. The following table presents the most relevant warning signs and symptoms for caregivers.

Table 2

Kawasaki Disease Warning Signs and Symptoms for Caregivers

Sign/Symptom	Clinical description	Importance for caregivers
Fever that lasts \geq 5 days	High temperature that does not respond to common antipyretics.	It is the main warning sign; requires immediate medical evaluation.
Non-purulent bilateral conjunctivitis	Redness of both eyes without discharge.	It can be confused with infectious conjunctivitis; its non-purulent character distinguishes it.
Altered lips and oral mucosa	Red, dry, or fissured lips; tongue in 'strawberry'.	A characteristic sign that facilitates the early suspicion of KD.
Polymorphous rash	Skin rash variable in shape and location.	It can be confused with allergies; its association with fever makes it relevant.
Redness and edema in the extremities	Swelling, redness, or peeling of the hands and feet.	It indicates vascular involvement; It usually appears in the acute phase.
Cervical adenopathy \geq 1.5 cm	Swollen lymph nodes in the neck.	It is less common, but increases diagnostic certainty if it is associated with other signs.
Other warning symptoms	Extreme irritability, abdominal pain, persistent vomiting.	They are not part of the cardinal criteria, but they may indicate early complications.

Source: Authors.

3.3 EDUCATIONAL STRATEGIES IMPLEMENTED AT THE INTERNATIONAL LEVEL

Health education has also been consolidated as a secondary and tertiary prevention strategy in EK. A number of countries have implemented programmes with encouraging results, as shown below.

Table 3

Educational strategies aimed at families with children who suffered from Kawasaki disease

Country / Institution	Strategies implemented	Main components	Reported Results	Source
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United States – Boston Children’s Hospital (Kawasaki Disease Program)	Comprehensive program of education, clinical follow-up and emotional support.	Educational workshops. Written and digital materials. Annual Symposium - Evaluation with pre- and post-workshop questionnaires	Reduced anxiety. Improved adherence to treatment and follow-up	Vainstein et al., 2018
Argentina – Ricardo Gutiérrez Children’s Hospital	Group workshops, educational materials, and phone follow-up.	Weekly sessions. Detection of persistent fever and mucocutaneous changes. Cardiological check-ups. Pharmacological management. Individual and group psychological support	Greater parental knowledge. Increased adherence to treatment-Reduction of anxiety	Vainstein et al., 2018
Chile – Hospital Dr. Sótero del Río	Mixed program of theory, practice and psychological support.	Three workshops in one month. Monthly phone follow-up for six months. Printed material and educational videos	Increased adherence - Greater confidence in detecting warning signs	González et al., 2012
Mexico	No documented programs of specific educational strategies.	There are only clinical and epidemiological studies	Opportunity to design and implement formal family education programs	García Rodríguez et al., 2016

Note: Prepared by the author based on the sources indicated.

4 MODALITIES AND EXPERIENCES OF HEALTH EDUCATION

4.1 WORKSHOPS AND EDUCATIONAL SESSIONS IN HOSPITALS

Workshops and educational sessions are an effective strategy for empowering families of children with Kawasaki disease, enabling them to recognize warning signs, understand treatment, and actively participate in caregiving. (Vainstein et al., 2018).

In Argentina and Chile, these initiatives have been shown to improve parental knowledge, therapeutic adherence, and early detection of complications (Vainstein et al., 2018; González, et al., 2012). Likewise, the Kawasaki Disease Foundation (2024) promotes virtual symposia that overcome geographical barriers and encourage exchange with experts.

4.2 PRINTED AND DIGITAL MATERIALS

Educational materials (leaflets, infographics, primers and brochures) facilitate the understanding and retention of key information. Notable examples include materials from the Argentine Society of Rheumatology (n.d.) and the Vasculitis Foundation (2025). In Mexico, hospital education booklets serve a similar function, empowering caregivers in home monitoring.

4.3 USE OF MOBILE TECHNOLOGIES AND APPLICATIONS

Mobile applications and digital platforms have proven to be effective in therapeutic adherence and doctor-patient communication. Examples such as MyChart, CareZone, and Kawasaki Disease Companion allow you to record symptoms, remember appointments, and access reliable information (Kobayashi et al., 2021; Ramanathan et al., 2021). In Mexico, tools such as Heart Alert can be adapted for the monitoring and education of families (Secretaría de Salud [SS], 2015).

4.4 TRAINING PROGRAMS FOR COMMUNITY CAREGIVERS

Community education expands the preventive reach of health systems. In Brazil, the Community Health Agents program has strengthened the early detection of pediatric symptoms (Macinko & Harris, 2015), while in Japan, teachers and community leaders are trained to identify early signs of KD (Saji et al., 2016). In Mexico, community promoters represent a valuable resource for future educational strategies (SS, 2018).

5 ADHERENCE TO MEDICAL TREATMENT AND FOLLOW-UP

Adherence to treatment in Kawasaki KD is essential to reduce complications and improve prognosis. It is defined as the degree to which caregivers comply with medication administration, consultation attendance, and other recommendations (Vrijens et al., 2012). In pediatrics, this responsibility falls on parents, who face difficulties similar to those observed in other chronic diseases, where between 30% and 50% have compliance problems (Gomes et al., 2021a; Sabaté, 2022).

In KD, adherence is especially relevant due to the need to administer IVIG, aspirin and guarantee echocardiographic follow-up. Non-compliance increases the risk of coronary aneurysms and other serious cardiovascular complications (Li et al., 2021; Silva et al., 2021). To optimize adherence, digital reminders, calls, and home visits have been implemented, which favor the continuity of treatment and attendance at medical consultations (Li et al., 2021; Kim et al., 2020).

6 EFFECTIVE COMMUNICATION BETWEEN FAMILY AND HEALTH EQUITY

Clear and empathetic communication between the medical team and families is a pillar of comprehensive management in KD, as it improves adherence, reduces anxiety, and increases satisfaction with the care received (Cohen et al., 2020). The absence of accessible information, on the other hand, generates uncertainty and makes it difficult to make informed decisions (Burney et al., 2022).

The active participation of parents in medical rounds and the delivery of understandable information is related to greater understanding of treatment and better clinical outcomes (Wright et al., 2018). In addition, adequate communication can mitigate negative cognitive and emotional effects on children and their families, strengthening long-term comprehensive health (Kim et al., 2021; Eleftheriou et al., 2014).

7 SECONDARY AND TERTIARY PREVENTION: BEYOND MEDICAL TREATMENT

Following administration of IVIG, the risk of cardiovascular complications, such as aneurysms, endothelial dysfunction, and premature atherosclerosis, persists. Therefore, healthy lifestyle habits are a key complement (McCrindle et al., 2017). A balanced diet, with low consumption of saturated fats and refined sugars, together with moderate daily physical activity, supports vascular function (de Ferranti et al., 2014). In case of coronary aneurysms, recommendations should be individualized. Sleeping between eight and ten hours contributes to immune and metabolic regulation, while limiting screens before sleep improves the quality of rest (Hirata et al., 2002). This comprehensive approach empowers families and reduces long-term cardiovascular complications.

8 IMPORTANCE OF PERIODIC CHECK-UPS WITH PEDIATRICS AND CARDIOLOGY

Periodic monitoring allows risks to be stratified and complications to be detected in a timely manner. According to the AHA (2017), the frequency of studies depends on the severity of coronary aneurysms.

- No coronary involvement: paediatric check-ups and an initial cardiological evaluation.
- Small or transient aneurysms: serial echocardiograms and annual check-ups.
- Giant or persistent aneurysms: lifelong follow-up, with advanced studies and stress tests (McCrindle et al., 2017).

A 20-year Japanese study showed an increased risk of serious cardiovascular events in adulthood in those who developed aneurysms (Kato et al., 1996).

Follow-up includes echocardiography, electrocardiography, biomarkers and family education on heart-healthy habits. Japan and the U.S. have consolidated protocols, while in Mexico international guides are adapted in a multidisciplinary approach.

9 PREPARATION FOR THE CHILD'S SCHOOL AND SOCIAL LIFE

The return to school and social life requires considering physical and emotional aspects. Although academic performance is often comparable to that of healthy children (King et al., 2020), up to 40% are anxious or withdrawn (Andrews et al., 2002). The Child Health

Questionnaire shows that patients without aneurysms maintain well-being comparable to the general population, although those who had giant aneurysms report lower physical health (Hopkins et al., 2003).

In Japan, a higher frequency of electrocardiographic abnormalities has been documented in adolescents with a history of Kawasaki (Hirata et al., 2002). In addition, although cases of sudden school death have decreased, teachers are still required to be able to prevent risks during physical activity (Ayusawa et al., 2022).

10 CHALLENGES AND BARRIERS IN HEALTH EDUCATION

Sociocultural factors and educational level of families

Health education about Kawasaki disease faces challenges linked to the sociocultural context and the educational level of caregivers, which makes it difficult to recognize warning signs and comply with medical follow-up. Between 30% and 50% of caregivers of children with chronic diseases have difficulties adhering to medical indications, with educational level being a determining factor (Gomes et al., 2021b; Sabaté, 2022).

In rural communities or communities with limited access to information, symptoms such as fever, rash, and conjunctivitis are often interpreted as common diseases, delaying diagnosis (Wakimizu et al., 2011). The digital divide also affects the use of apps and tracking platforms, especially in low-income families (Ventola, 2014). In addition, emotional factors associated with low schooling increase anxiety and uncertainty in the face of the disease, which reinforces the need for culturally sensitive education and clear language (Wakimizu et al., 2011).

10.1 LIMITATIONS OF THE HEALTH SYSTEM IN RESOURCE-CONSTRAINED SETTINGS

Limited access to IVIG in the acute phase, due to its high cost, and the shortage of specialists in pediatric pediatrics and pediatric cardiology make adequate follow-up difficult (Salcedo-Vargas et al., 2018; Newburger et al., 2016). The restricted availability of high-resolution echocardiography and the fragmentation of health systems generate inequalities in care and discontinuity in care (Marrani et al., 2021; Pan American Health Organization [PAHO], 2021). Likewise, low investment in educational programs limits community prevention and leaves caregivers with insufficient information to manage the disease (Ramírez-García et al., 2019).

11 CONCLUSIONS AND FUTURE RECOMMENDATIONS

Kawasaki disease is a child health problem of great clinical, social and economic relevance. Its impact transcends the acute phase, affecting the neurological, emotional and school environment of patients, as well as the psychological and financial well-being of their families. Inequalities in access to diagnosis and treatment, especially in countries with limited resources, reinforce the need to place it as a public health priority.

Therapeutic adherence and effective communication between family and health team are inseparable pillars in treatment, as they contribute to reducing cardiovascular complications, optimizing quality of life, and strengthening trust in the doctor-patient relationship.

Health education, based on models such as the KAP, is consolidated as an essential tool for early detection, the prevention of complications and the improvement of family well-being. Evidence shows that educational and psychosocial interventions reduce caregivers' anxiety, improve adherence to treatment, and promote the comprehensive recovery of affected children.

Taken together, addressing KD from a comprehensive perspective that combines medical care, psychosocial support, and health education represents the most promising strategy to reduce its impact and move toward more equitable and effective care.

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