

Use of photography in research with children and adolescents with chronic conditions: an integrative review

Useo da fotografia em pesquisas com crianças e adolescentes com condições crônicas: revisão integrativa
 Uso de la fotografía en estudios con infantes y adolescentes con condiciones crónicas: revisión integradora

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How to cite:

Evangelista TA, Nunes MD, Machado SG, Santos MA, Olegário BC, Nascimento LC. Use of photography in research with children and adolescents with chronic conditions: an integrative review. *Acta Paul Enferm.* 2023;36:eAPE01994.

DOI

<http://dx.doi.org/10.37689/acta-ape/2023AR0019944>



Keywords

Child; Adolescent; Photography; Data collection; Chronic disease

Descritores

Criança; Adolescente; Fotografia; Coleta de dados; Doença crônica

Descriptores

Nino; Adolescente; Fotografia; Recolección de datos

Submitted

September 23, 2022

Accepted

May 31, 2023

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Abstract

Objective: To identify studies that used Photo-Elicitation and Photovoice techniques as a strategy for data collection with children and adolescents with chronic conditions.

Methods: This is an integrative literature review, carried out in the Web of Science, CINAHL, MEDLINE, PsycINFO and LILACS databases, with a search for articles published in English, Portuguese and Spanish, between 2010 and 2021. The searches were conducted between February and April 2022. Data were analyzed descriptively and organized into categories.

Results: A total of 28 articles were included and, based on the analytical process, the following categories were constructed: *Advantages of using Photo-Elicitation and Photovoice*; and *Challenges in using these techniques*.

Conclusion: The literature is converging when considering that the visual approach is configured as a tool that facilitates the communication of the experiences of children and adolescents with chronic conditions, although it may present some challenges in its applicability.

Resumo

Objetivo: Identificar estudos que utilizaram as técnicas de Foto-Elicitação e *Photovoice* como estratégia para coleta de dados com crianças e adolescentes com condições crônicas.

Métodos: Revisão integrativa da literatura, efetuada nas bases de dados *Web of Science*, CINAHL, MEDLINE, PsycINFO e LILACS, com busca de artigos publicados em inglês, português e espanhol, entre os anos 2010 e 2021. As buscas foram conduzidas entre os meses de fevereiro e abril de 2022. Os dados foram analisados de forma descritiva e organizados em categorias.

Resultados: Foram incluídos 28 artigos e, a partir do processo analítico, construíram-se as seguintes categorias: 1 - Vantagens do uso da Foto-Elicitação e do *Photovoice*; e 2 – Desafios no uso dessas técnicas.

Conclusão: A literatura é convergente ao considerar que a abordagem visual se configura como uma ferramenta facilitadora da comunicação das experiências de crianças e adolescentes com condições crônicas, ainda que possa apresentar alguns desafios na sua aplicabilidade.

Resumen

Objetivo: Identificar estudios que utilizaron las técnicas de foto-elicitación y fotovoz como estrategia de recopilación de datos con infantes y adolescentes con condiciones crónicas.

Métodos: Revisión integradora de la literatura, realizada en las bases de datos *Web of Science*, CINAHL, MEDLINE, PsycINFO y LILACS, con búsqueda de artículos publicados en inglés, portugués y español, entre

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Conflict of interest: nothing to declare.

los años 2010 y 2021. Las búsquedas se llevaron a cabo entre los meses de febrero y abril de 2022. Los datos se analizaron de forma descriptiva y se organizaron en categorías.

Resultados: Se incluyeron 28 artículos y, a partir del proceso analítico, se crearon las siguientes categorías: 1) Ventajas del uso de la foto-elicitación y de la fotovoz, 2) Desafíos del uso de estas técnicas.

Conclusión: La literatura es convergente al considerar que el enfoque visual se presenta como una herramienta facilitadora de la comunicación de las experiencias de infantes y adolescentes con condiciones crónicas, aunque puede presentar algunos desafíos para su aplicabilidad.

Introduction

Photography has been increasingly explored in data collection processes, based on the principle that it expands the richness of data and allows the interviewee to assume a protagonist position, by imprinting his vision on the researched object.⁽¹⁾ The use of photographs in the data collection process aims to provoke verbal discussion, generating information that evoke feelings, information and memories. Its use differs from the traditional interview because it is based on the way in which the participants respond to the symbolic representations contained in photographs. Thus, the use of photographs enhances the process of conducting an interview, making it a process that extracts more elaborate information by exploring different layers of meanings.⁽²⁾

Since children easily lose focus and may have difficulty verbalizing their responses, participatory methodologies arouse interest and help to release their potential for generating information about their way of thinking. Adolescents, in turn, may feel more attracted to the dynamic process provided by these innovative methodologies.⁽¹⁾ Thus, using them can expand the richness of the data collected and streamline the relationship between the researcher and the participant.⁽¹⁾

Among the methods that allow the use of images, Photovoice and Photo-Elicitation stand out. Photovoice is a participatory methodology that makes it possible to visualize and approach the narrative from a new perspective that explores the everyday social context, historical and cultural expression, people's wishes and problems. Members of a community take pictures about a certain issue and take them to the group, in order to spark discussions that promote dialogue on matters of importance to their members.⁽²⁾

Photo-Elicitation, on the other hand, is configured as the use of photographs to generate a verbal discussion. This is a widely used technique, which involves the production of images that will be used during the interview. These images can either be produced by the interviewee, based on a triggering question, or taken by the researcher after a pre-selection focusing on the objective of the study. Although both cases motivate the expression of participants' perspectives, it is observed that when they photograph their own images, they have greater freedom to talk about what they want and the researcher can observe the emotions that emerge as they attribute meaning to these photographs.⁽²⁾

When it comes to children with chronic conditions, it can be said that the manifestations generated have the potential to completely transform their lives and those of everyone involved, regardless of the degree of complexity of the condition. Children may need to use special medications and technological devices, adopt a different diet and have functional limitations, among other needs, such as assistance in health or educational services beyond what is expected for their age.^(3,4) Through the role played by participants during the interviews, using Photo-Elicitation and Photovoice, there is great potential in obtaining data that are capable of representing and validating their experiences and feelings. Their optics are printed through the photographs, and the meanings behind each one of them reveal their unique reality.

Allowing these subjects to express themselves can support the development of forms of care that best suit their realities.⁽¹⁾ Understanding that children and adolescents with chronic conditions are able to construct information about themselves opens many doors regarding ways of researching, in the sense of exploring the world of these subjects through their lens.⁽¹⁾

Considering the above, the originality and the importance of strategies that make it possible to deepen data collection with children and adolescents, it was decided to carry out an integrative review with the objective of identifying studies that used Photo-Elicitation and Photovoice as a strategy for data collection with children and adolescents with chronic conditions. The use of images adds a new dimension to existing techniques, by evoking multidimensional data and by adding value to the insights contained in participants' words about their daily lives.

Thus, the construction of this study is justified by exploring innovative techniques for data collection capable of exploring social phenomena in more depth. Due to technological advances, there was a need to create new ways to develop research, and visual resources allow exploring the most diverse layers behind subjects' experience, enriching the analysis and understanding of the object of study. Moreover, it includes groups that are not capable of expressing themselves through writing, such as the most socially vulnerable groups, since it is a technique that goes beyond textual walls.⁽⁵⁾

Methods

This is an integrative review, based on the steps proposed by authors who systematized the method.⁽⁶⁾ The review question was: What scientific evidence is available in studies on the use of Photo-Elicitation and Photovoice techniques as strategies for data collection with children and adolescents with chronic conditions? It was elaborated based on the PICO strategy,⁽⁷⁾ with P corresponding to the population (children and adolescents with a chronic condition); I, to the phenomenon of interest (photographs, Photo-Elicitation and Photovoice); and C, to context (research/data collection).

Searches were conducted between February and April 2022. Articles published between January 1, 2010 and December 31, 2021, in English, Portuguese and Spanish, empirical with children and adolescents with chronic conditions who used photography as a data collection technique, that

brought contributions on the operationalization of the Photovoice and Photo-Elicitation stages with children and adolescents, were included.

Studies with healthy children and adolescents or with acute illnesses, which did not use any type of photography as a data collection strategy, literature review, gray literature and studies that included subjects over 19 years of age in their samples, considering the definition of children and adolescents by the World Health Organization were excluded.⁽⁸⁾

The databases searched were Web of Science, Cumulative Index of Nursing and Allied Health (CINAHL), MEDLINE®, PsycINFO and Latin American and Caribbean Literature on Health Sciences (LILACS).

The descriptors used, previously selected after consulting the Medical Subject Headings (MESH), were: children, adolescent, photography, interview and data collection together with the keywords "photo-elicitation", "photovoice", "photo-elicitation interview" and "Imaging". Personalized search strategy was used in each database, taking into account its particularities to expand the recruitment of references. The Boolean operators "OR", "AND" and "NOT" were used in each of them. The standard search strategy was: (child OR adolescent) AND (photography OR "photo-elicitation interview" OR "photo elicitation" OR "photo-elicitation" OR photovoice NOT imaging) AND (interview OR "data collection").

After surveying the databases, titles and abstracts underwent exhaustive reading by two authors independently, to ensure that the texts contemplated the review question and met the established eligibility criteria. In case of doubt regarding the selection, it was decided to initially include the publication and decide on its selection only after reading its content in full.

The articles that met the eligibility criteria were separated into a table, prepared by the authors for this purpose, for the extraction and synthesis of data from each primary study included in the review, containing the following information: article title, country of origin, area of expertise of authors, year of publication, objectives, participants, specificities about the use of photography, main results

and considerations about Photo-Elicitation and Photovoice. This chart allowed the comparison and organization of data according to their differences and similarities, which were analyzed and presented in categories.⁽⁹⁾

Results

Initially, 2,961 abstracts were identified, of which 234 were selected for full reading and 28 met the eligibility criteria (Figure 1).

After exhaustive reading of articles by two independent researchers, a synthesis of the 28 included articles was carried out, which is presented in Chart 1.

Characterization of the studies included in the review

Year of publication, country and area

The largest number of publications occurred in 2021 (n=9), evidencing the recent increase in interest in the use of these strategies.⁽¹¹⁻¹⁹⁾

Regarding the origin of the studies, the United Kingdom stood out (n=6).^(14,17,21,25,28,38) Then came United States, with 4 publications.^(16,31,36,37) and Brazil, also with 4 publications.^(11,12,19,30)

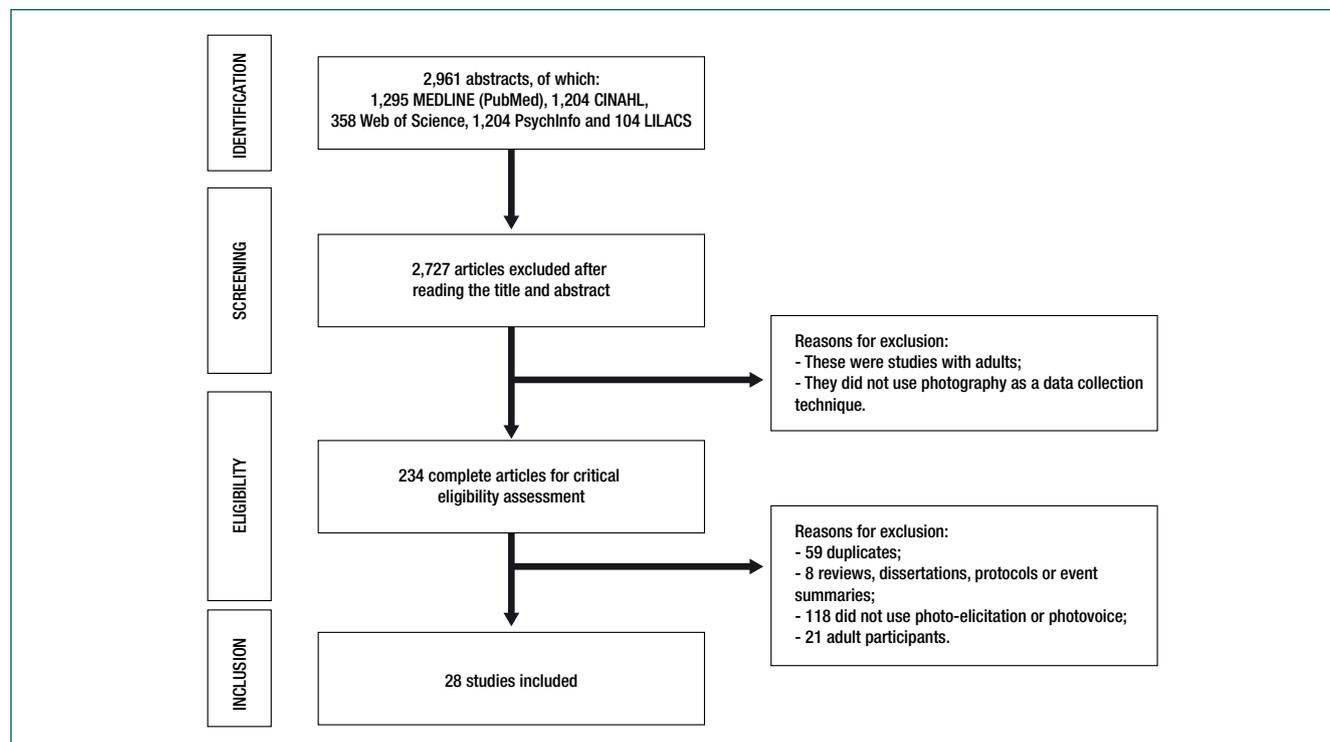
Nursing had the highest number of analyzed references (n=10),^(11,12,15,24,26,30,33,34,37,38) followed by medicine^(17,27,31,32,36) and psychology,^(13,18,19,23,28) with five publications, education, with four,^(14,16,25,35) occupational therapy, with two,^(20,21) and physiotherapy,⁽²²⁾ public health⁽²⁹⁾ and physical education,⁽³⁵⁾ all with only one publication.

Participants' age and number

Participants' age ranged between 5 and 19 years, with emphasis on the use of the technique from school age onwards. The number of participants per study ranged from 5 to 45.

Choosing the device

With regard to the stages of the process for obtaining data, it was identified, in 11 studies, the use of participants' own devices to capture the photographs,^(21-24,29,36,38) while, in oth-



Source: Page MJ et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021 Mar 29;372(71). DOI: 10.1136/bmj.n71.⁽¹⁰⁾

Figure 1. Data collection flowchart, PRISMA (2020)⁽¹⁰⁾

Chart 1. Synthesis of articles included in the study

Database	Authors, year, country, reference number	Participants/technique	Objectives
MEDLINE	Alvarenga, Leite, Menochelli, Ortiz La Banca, De Bortoli, Neris, et al. (2021). Brazil ⁽¹¹⁾	15 adolescents aged 7 to 17 years, hospitalized with cancer. Photo-Elicitation	Develop and assess a conversation model for a spiritual approach with children and adolescents with cancer.
MEDLINE	Alvarenga, Machado, Leite, Caldeira, Vieira, Rocha, et al. (2021). Brazil ⁽¹²⁾	35 children and adolescents between 7 and 18 years diagnosed with cancer, cystic fibrosis and type 1 diabetes. Photo-Elicitation	Identify the spiritual needs of children and adolescents with chronic diseases and how these needs are perceived by health professionals during hospitalization.
CINAHL	Andriana & Evans, (2021). Indonesia ⁽¹³⁾	7 students with intellectual disabilities from 9 to 3 years. Photo-Elicitation	Report experiences of transitions in different contexts, such as from "regular school" to "inclusive school", from special class to regular class.
Web of Science	Bagnall, Fox & Skipper (2021). United Kingdom ⁽¹⁴⁾	6 children in the 5 th grade and 11 children in the 6 th grade with social, emotional and mental health difficulties (ages of participants not specified). Photo-Elicitation	Examine how children with social, emotional and mental difficulties in a special school experience the transition from elementary to high school and how they are supported, in order to propose recommendations to improve this transition.
Web of Science	Ebrahimipour, Mirlashari, Hosseini, Zarani & Thorne. (2021). Iran ⁽¹⁵⁾	20 children aged 6 to 12 years with cancer. Photovoice	Identify the view of hospitalized children with cancer on the circumstances and factors that provide hope in the oncology ward.
Web of Science	Mott, Tummons, Simonsen, & Vandermau (2021). United States ⁽¹⁶⁾	Adolescents between 17 and 18 years (number of participants and diagnosis not specified). Photo-Elicitation	Describe a Photo-Elicitation protocol used with youth involved in livestock production throughout childhood and to assess the benefits and challenges of using Photo-Elicitation for qualitative research purposes.
Web of Science	Netherton, Horton, Stock, Shaw, Noons & Evans. (2021). United Kingdom ⁽¹⁷⁾	4 adolescents aged 11 to 15 years with Apert syndrome and their mothers. Photo-Elicitation	Explore psychological adjustment to Apert syndrome from the perspective of young people and their parents, with the broader aim of analyzing care and support for this population.
CINAHL	Pals, Hviid, Cleal & Grabowski. (2021). Denmark ⁽¹⁸⁾	18 children with type 1 diabetes mellitus between 10 and 14 years. Photo-Elicitation	Explore how children with type 1 diabetes perceive, make sense of, and deal with diabetes treatment technologies in their everyday lives.
Web of Science	Ramalho, El Husseini, Bloc, Bucher-Maluschke, Moro & Lachal. (2021). Brazil ⁽¹⁹⁾	8 adolescents aged 12 to 18 years with anorexia nervosa or bulimia nervosa. Photo-Elicitation	Investigate the role of food in the family relationships of adolescents with anorexia nervosa and bulimia in Northeast Brazil using Photo-Elicitation as well as identify the main problems and what adaptations can be suggested.
Web of Science	Coussens, Destoop, De Baets, Desoete, Oostra, Vanderstraeten, et al. (2020). Belgium ⁽²⁰⁾	16 children between 5 and 9 years with developmental disorders such as attention deficit, hyperactivity, dyspraxia and autism. Photo-Elicitation	Capture the subjective experiences of young children with developmental disabilities about participating in life situations.
Web of Science	Powrie, Copley, Turpin, Ziviani & Kolehmainen. (2020). United Kingdom ⁽²¹⁾	6 participants, aged between 9 and 19 years and with physical disabilities. Photovoice	Understand meaningful leisure from the perspective of children and young people with physical disabilities.
MEDLINE	Vänskä, Sipari & Haataja. (2020). Finland ⁽²²⁾	9 children aged 5 to 10 with disabilities. Photo-Elicitation	Describe meaningful participation in everyday life from the perspective of children with disabilities.
MEDLINE	Denford, Hill, Mackintosh, McNarry, Barker & Williams. (2019). England ⁽²³⁾	12 adolescents aged 12 to 18 years with cystic fibrosis. Photo-Elicitation	Explore reasons, barriers and facilitators for physical activity in this population.
Web of Science	Poku, Caress & Kirk. (2019). Ghana ⁽²⁴⁾	Children aged 12 to 17 with sickle cell anemia in Ghana (number of participants not specified). Photo-Elicitation	Develop a theory to explain fatigue related to sickle cell disease in adolescence.
Web of Science	Cooper. (2017). United Kingdom ⁽²⁵⁾	20 children from 6 to 10 years. Photo-Elicitation	Provide opportunities for children to build 'all about me' narratives using images as an encouragement to talk.
Web of Science	Ford, Bray, Water, Dickinson, Arnott & Carter. (2017). England, Australia and New Zealand ⁽²⁶⁾	No sample Photo-Elicitation	Raise ethical and practical considerations for the use of photo elicitation interviews in research with children.
MEDLINE	Sibeoni, Costa-Drolon, Poulmarc'h, Colin, Valentin, Pradère, et al. (2017). France ⁽²⁷⁾	15 adolescents between 13 and 18 years with psychological disorders (anxiety, depression, personality disorder and panic disorder). Photo-Elicitation	Examine the value and feasibility of using Photo-Elicitation in adolescent psychiatry research by exploring the role of food in family relationships.
Web of Science	King, Williams & Gleeson. (2017). United Kingdom ⁽²⁸⁾	5 adolescents aged 13 to 15 diagnosed with autism or Asperger's syndrome. Photo-Elicitation	Explore self-understanding among five adolescent boys diagnosed with an autism spectrum condition.
Web of Science	Ha & Whittaker. (2016). Vietnam ⁽²⁹⁾	9 adolescents between 10 and 17 years with autism spectrum disorders. Photovoice	Report the use of a modified form of Photovoice in adolescents with autism spectrum disorder, as a means of promoting meaningful participation in research that addresses their lives and experiences.
LILACS	Pereira, Coimbra, Cardoso, Oliveira, Vieira, Nobre, et al. (2016). Brazil ⁽³⁰⁾	Children between 6 and 11 years with difficulties with interpersonal relationships, concentration problems and learning disabilities. Photovoice	Report the use of participatory methodologies in research with children.
CINAHL	Walker, Johnson, Schatz, Silverstein, Lyles & Rohrs. (2015). United States ⁽³¹⁾	40 adolescents between 12 and 19 years with type 1 diabetes. Photo-Elicitation	Better understand the perspectives of young people with type 1 diabetes according to key demographic variables.
Web of Science	Watts, Lovato, Barr, Hanning & Mässe. (2015). Canada ⁽³²⁾	22 overweight/obese adolescents between 11 and 16 years. Photovoice	Explore the perceived factors that prevent or facilitate healthy eating in the home environment among overweight adolescents.
MEDLINE	Whiting (2015). England ⁽³³⁾	20 children between 9 and 11 years (unspecified diagnosis). Photo-Elicitation	Reflect on the use of photo elicitation as a data collection method in research with school-aged children.

Continue...

Continuation.

Database	Authors, year, country, reference number	Participants/technique	Objectives
CINAHL	Fournier, Bridge, Kennedy, Alibhal & Konde-Lule. (2014). Uganda ⁽⁶⁴⁾	13 adolescents between 12 and 18 years living with HIV. Photovoice	Explore the experiences of HIV-positive orphan children living in foster homes in semi-urban western Uganda through the use of Photovoice.
Web of Science	Lamb, Firbank & Aldous. (2014). England ⁽⁶⁵⁾	5 adolescents aged 12 to 16 years with autism spectrum disorders. Photo-Elicitation	Analyze physical education experiences from the perspective of five young people with autism spectrum disorder.
CINAHL	Desai, Sutton, Staley & Hannon. (2013). United States ⁽⁶⁶⁾	13 children and adolescents between 9 and 16 years with complex cardiac disorders. Photo-Elicitation	Explore what children and adolescents with complex congenital heart disease find meaningful when attending a therapeutic camp in the company of peers with similar medical diagnoses.
MEDLINE	Stegenga & Burks. (2013). United States ⁽⁶⁷⁾	12 children and adolescents between 6 and 14 years diagnosed with sickle cell anemia. Photovoice	Examine the perspective of children/adolescents with sickle cell anemia using photovoice, both to better understand the perspective of these patients and to assess the usefulness of the research method with this population.
Web of Science	Wells, Ritchie & McPherson. (2012). United Kingdom ⁽⁶⁸⁾	10 adolescents aged 13 to 17 years with chronic kidney disease. Photo-Elicitation	Explore the experiences of adolescents with established renal failure on dialysis and to identify potential barriers to effective treatment.

ers,^(13-15,25,27,28,30-35,37) the devices were provided by the researchers.

The devices provided by the researchers were disposable cameras with 27 poses (n=5)^(14,28,31,33,37) and digital camera (n=6).^(13,25,30,32,34) A study also allowed the use of their own device together with a digital camera (n=1),⁽²⁷⁾ iPad (n=1)⁽³⁵⁾ and cell phone without a SIM card (n=1).⁽¹⁵⁾

According to the results found, the use of a disposable camera, although valid and likely to arouse participants' interest, can impair photograph quality or even result in losses due to malfunction. The use of digital cameras represents a power in future research, even if they are more expensive.⁽³⁷⁾

In some studies, the use of disposable cameras aims to control the release of images in compliance with the ethical aspects involved in the use of images. However, for this use to be adequate, it is necessary to provide prior and clear information regarding its operation, since some participants may never have had contact with the device before. The same training can be offered for using digital cameras.^(33,34) Two surveys included in this review did not use cameras, as they used photographs pre-selected by the researchers for the time of the interview.^(11,12) Two studies did not specify the device used.^(16,26)

Number of photographs

The number of photos requested by participants before the interview ranged from one^(19,27) to 27 photos.^(24,28,31) Nine studies did not determine the

number of photographs.^(13,15,20,22,26,29,34,35,37) Only two studies used pre-selected photos, taken by the interviewer and not captured by participants.^(11,12)

Time to capture the photographs

No uniformity was observed regarding the time stipulated for capturing photographs, ranging from 15 minutes during a proposed activity to 12 weeks. Most stipulated a limit of 1 week (n=5).^(14,20,27,29,38) Nine studies did not specify the determined time for capturing photos.^(15,17,18,21-25,34) Two studies used pre-selected photos, with no capture time by participants.^(11,12)

Performance site

Interview site varied between participants' homes, in most studies (n=17),^(15-25,27,29,31-33,38) schools (n=6),^(13,14,28,30,34,35) hospitals (n=2)^(11,12) and outpatient clinics (n=2).^(36,37) One study did not specify the data collection site.⁽²⁶⁾ It should be noted that, when the research involves capturing images, the home may be a place with less ethical implications and need for guidance, considering that health and education professionals may be uncomfortable with the child or family member photographing their activities.

Category presentation

Advantages of using Photo-Elicitation and Photovoice

Studies have shown that children and adolescents may have moments of difficulty in expressing and articulating their experiences, relying solely on the

use of words.^(22,29) Providing opportunities for them to express themselves through methods that encourage their participation in the research can favor the expression of feelings and perspectives. Thus, the use of photography encompasses different forms of communication by children about their identity, experiences, making them participate in the research directly.^(14,17,18,25,27,35,37,38)

The task of taking photographs can be pleasurable and involving, and this can make research more dynamic and attractive for children and adolescents, as indicated by some authors.^(20,27,28,37) Furthermore, it helps them talk about themselves and the world, and can be used in different contexts and with different types of participants.⁽²⁹⁾ It is also a good method of communication and a link between researcher, participant and parents, with the potential to help as a starting point for interviews, in the sense of reducing the initial barrier or tension between researcher and participant, encouraging the report of experiences and expression of feelings.^(11,12,16,29)

By evoking emotions, insights and reviving memory, photographs also have the potential to offer a dynamic, intimate and detailed account of a certain experience from the perspective of a person with an emphasis on what is really important to them. Narratives become even richer when they promote reflection on experiences by capturing significant and relevant elements.^(18,24,30,33,36)

Although the review was specifically aimed at the population of children and adolescents with chronic conditions, most primary studies did not address specificities of the use of photography with this population. Only four of them point out that Photo-Elicitation and Photovoice are also viable and useful for interviewing adolescents with psychiatric disorders^(27,28,35) and with autism spectrum disorder,⁽²⁹⁾ although it is necessary to consider some particularities in the use of technique to contemplate participants' skills, interests and practical considerations.

Thus, prior training was required with all participants and recurring visits. All children held training sessions on the photovoice technique at home with an experienced interviewer and also with the

help of their teachers at school. Furthermore, they were given a pamphlet with instructions on data collection written in simple language and with illustrative figures.⁽²⁹⁾

The interviewer's prior preparation to deal with children with autism spectrum disorder and attention deficit hyperactivity disorder proved to be a facilitator in conducting data collection. The choice of a person with a good relationship with participants, in order to help in the perception of possible discomforts and the use of an iPad and a pictorial dictionary of emotions as a way of reminding them that they were in the research environment, were also strategies used.⁽³⁵⁾

In addition to their importance for research, the use of these techniques can help plan interventions that meet the pediatric population's needs, since their report and vision are the starting point.^(13,22,31)

Challenges in using these techniques

Despite the benefits of both techniques, some challenges were identified for their use. Thus, it is recommended to carefully choose the research topic and observe participant characteristics. Specific factors must be considered in planning and conducting the interviews. The techniques require time and dedication from the researcher, so at least two meetings are necessary.⁽¹⁶⁾ Applying them also requires time to process the images and talk about them.⁽²⁶⁾

Participants' ages and developmental stages are relevant. For instance, teenagers are capable of abstract thinking and, therefore, are excellent candidates for using the techniques. Younger children do not have the ability to articulate their thoughts to the same depth and, as their language skills are still being refined, they may not be able to construct longer, more complex sentences, producing brief responses.^(15,16,33)

Photographs can limit the topics of the interview, as participants themselves guide the discussion. This may result in a lack of information on certain points that could be relevant for deepening the researched topic.⁽²⁴⁾ Other researchers identified as a limitation the possibility that the interviews follow different paths for each participant, as they are active during the process, and highlighted the

need for the interviewer to have the ability to create interactions and be creative in the approach, in addition to encouraging verbal communication and adapting language to age.^(11,12) The inclusion of other types of images, in addition to photography, such as drawings, was a suggestion to make the method more flexible and inclusive, especially in research with few resources.⁽²⁴⁾

Some studies revealed that parents influenced children in the decision of what to photograph, since, at the time of the interview, when asked about the meaning of the photograph, they demonstrated difficulty and claimed that one of the parents was responsible for the photo. In these cases, the researchers encouraged parents to remind their children and teenagers about the task, but not to take the pictures for them.^(16,26,33) It is worth emphasizing the importance of guidance to parents or guardians.

In one of the studies, shared photographs were taken or directed by family members. Some presented activities staged, captured by other people and directed by children. For instance, some children acted out their fatigue-related self-management strategies, such as sleeping, and asked others to capture these moments. Children wanted their photographs to be realistic and therefore preferred to have others photograph them rather than taking selfies.⁽²⁴⁾ In another study, participants did not remember to photograph or reported difficulty deciding what to photograph.⁽²⁸⁾

An important point about the use of these techniques refers to ethical care, since it involves images. Some family members refused to participate due to fear of exposure, although image protection was guaranteed.⁽³³⁾ There was concern about the images that would be captured by children and adolescents so that they would not be exposed or inappropriate.⁽²⁶⁾ Researchers consider that studies carried out with hospitalized children and adolescents that use photographs taken by the participants themselves may present ethical difficulties because it is not easy to manage their production. In some cases, it is possible to use images previously selected by the researcher and taken to assist in this moment of the interview.^(11,12)

Discussion

Regarding study characterization, there was an increase in the number of studies over the years, with an exponential increase in publications in 2021.⁽¹¹⁻¹⁹⁾ This data reveals that methodologies that use photographs as a technique for data collection with children have recently become more used, and may be related to the character of these techniques, since it is a facilitating element in communication with the child population and that privileges the expression of feelings and ideas.

In developed countries there is a greater investment in advanced research compared to those in development, such as Latin American countries, such as Brazil. Therefore, finding a greater number of publications in countries such as the United Kingdom^(14,17,21,25,28,38) and the United States^(16,31,36,37) can be considered an expected finding.

With regard to the areas of knowledge, the area of nursing^(11,12,15,24,26,30,33,34,37,38) was prevalent in the number of publications, which can be explained by the qualitative nature of the research, considering that the area has been concerned with investigating the phenomena experienced by participants.

As identified in this review, studies with other populations of children and adolescents highlighted that the photos and narratives arising from this profile of participants outline the direction of the questions, providing elements to be explored. Additionally, they enhance the involvement and participation in the interviews, as they allow extracting data that would possibly not be revealed only with a conversation.⁽³⁹⁾ In this way, they allow participants to show their reality in different ways;⁽⁴⁰⁾ favor insights that promote the expression of participants and their context;⁽⁴¹⁾ and encourage them to use their voice, having the image as a basis for adjusting their words.⁽⁴²⁾ Moreover, studies highlight interest in the method, curiosity about the results of the photos and reflection on the way to photograph, making children appreciate their participation and relate objects to abstract concepts.⁽⁴³⁾

As limiting factors, the literature corroborates the ethical challenges that involve using photographs, highlighting the fear of improperly disclos-

ing the images and the non-guarantee of privacy⁽⁴⁴⁾ and anonymity of the people present in the images. Therefore, it is important to obtain written consent from those responsible and the consent form of minors, in addition to excluding potentially compromising photos.⁽⁴⁵⁾

The influence of parents in the decision of what to photograph was also identified in the literature as a possible obstacle. According to the authors, a collaborative approach, in which parents guarantee the child's role and comply with the guidelines in the process, without assuming control, seems to generate greater satisfaction for participants.⁽⁴³⁾ In addition to parents' influence, another challenge found referred to the difficulty of children in remembering to take pictures, since some were easily distracted and could not understand the task, requiring flexibility from the researcher in carrying out the interviews to obtain the data, in addition to the establishing a routine of reminders to participants.⁽¹⁾

Although Photo-Elicitation and Photovoice enrich and enhance data collection with children and adolescents in general, including those with chronic conditions, it is worth noting that they need to be appropriate to the age group, the stage of development and the specificities demanded by each chronic condition presented by each of the participants.⁽⁴⁶⁾ Four studies included in this review with adolescents with psychiatric disorders highlighted the need for adaptations to contemplate the subjects' conditions.^(27-29,35) These same four studies referred to the particularity regarding the use of the technique specifically with children and adolescents with chronic conditions.^(27-29,35)

This fact highlights the need to insert the necessary adaptations for the use of strategies in future research using these techniques, in addition to the need to also assess the type of chronic condition, which can add other challenges to its implementation.

For children with complex physical or neurological disabilities, for instance, it is necessary to recognize that some activities, such as drawing, photographing or writing, can be difficult and, therefore, require adaptations that allow access to

these resources. Participatory methodologies for children and adolescents with disabilities reinforce the importance of selecting techniques that allow participants to express themselves.⁽⁴⁷⁾

It is noteworthy that, although participants guide the data collection process through their photos, the researcher is not exempt from responsibility in conducting the interviews, as he must ensure that there is active participation, taking into account the specificities of each participant, without losing considering the objectives of the study.⁽³⁹⁾

Conclusion

The results of this review allow us to identify that Photo-Elicitation and Photovoice are considered facilitating techniques in the communication of the experiences of children and adolescents with chronic conditions, even with psychiatric disorders, physical or complex neurological deficiencies. The use of these techniques requires organization, good definition of the methodological path and adaptations for its implementation in some situations. The inclusion of participatory methodologies, such as Photo-Elicitation and Photovoice techniques, for data collection, proves to be an innovative movement, with the potential to reveal profound information on various research topics relevant to the child and adolescent population. However, it is recognized that few studies have used photographs as a data collection strategy with this public in the researched databases, making room for new discoveries, future primary research. Including the use of other evidence synthesis methods, such as the scope review, which provides for the inclusion and analysis of other data sources.

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