Screening of adverse childhood experiences in preschoolers: a systematic review

Maribel Vega-Arce^{1*} and Gastón Núñez-Ulloa²

¹Universidad Católica del Maule, Talca; ²Escuela de Lenguaje, San Clemente, Chile

Abstract

The present review aims to describe scientific publications available that detail strategies and screening tools for adverse childhood experiences in preschoolers (2 to 5 years of age). A systematic review of the topic was carried out through research articles published in peer-reviewed journals from January 1998 to June 2017 and indexed in seven international databases (Cochrane Library, EBSCO, PubMed, Science Direct, Springer, Web of Science and Scielo). The articles were selected based on predefined criteria, using limiters and manual screening. Twenty articles published between 1999 and 2017 were selected. The screening of adverse childhood experiences is performed through opportunistic recruitment in a professional context aimed at caregivers and children, which integrates training actions, application of screening tools, and reception of identified cases. Screening tools differ between interviews and questionnaires. In addition, we report the periodicity of the screening, the behaviors, and beliefs of the professionals against it and the barriers to its implementation. This review confirms that the screening of adverse childhood experiences is an emerging topic in the research field. We emphasize the need to systematize and evaluate the strategies and tools for screening adverse childhood experiences, as well as to develop local approaches to respond to the needs of children exposed to adversity.

Key words: Childhood. Psychosocial factors. Systematic review.

Cribado de las experiencias adversas en la infancia en preescolares: revisión sistemática

Resumen

El presente artículo busca describir las publicaciones científicas que detallan estrategias y herramientas de cribado del parámetro experiencias adversas en la infancia, disponibles para población preescolar (2 a 5 años). Para esto, se realizó una revisión sistemática exploratoria del tema a través de artículos de investigación publicados en revistas de revisión por pares entre enero de 1998 y junio de 2017 e indexados en siete bases de datos internacionales (Biblioteca Cochrane, EBSCO, PubMed, Science Direct, Springer, Web of Science y Scielo). Los artículos fueron seleccionados con base en criterios predefinidos, haciendo uso de limitadores y tamización manual. En total, se seleccionaron 20 artículos publicados entre 1999 y el 2017. El cribado de las experiencias adversas en la infancia se realiza por medio de una captación oportunista en un contexto profesional orientado a los cuidadores y niños, que integra acciones de capacitación, aplicación de herramientas de tamización y acogida de los casos identificados. Las herramientas de cribado se diferencian entre entrevistas y

Correspondence:

*Maribel Vega-Arce
Email: mvega@ucm.cl

Received: 06-04-2017

Accepted: 13-07-2017

DOI: 10.24875/BMHIME.M17000010

Available online: 25-06-2018

Bol Med Hosp Infant Mex. 2017;74:383-393

www.bmhim.com

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cuestionarios. De igual modo, se reporta la periodicidad del cribado, los comportamientos y creencias de los profesionales frente a este y las barreras para su implementación. La revisión realizada confirma que el cribado de las experiencias adversas en la infancia es una temática emergente en el ámbito investigativo. Se hace énfasis en la necesidad de sistematizar y evaluar las estrategias y herramientas para cribado de las experiencias adversas en la infancia, así como desarrollar aproximaciones locales que permitan responder a las necesidades de los niños expuestos a adversidad.

Palabras clave: Infancia. Factores psicosociales. Revisión sistemática.

Introduction

In recent years, the parameter *adverse childhood experiences* (ACE) has become a benchmark in research on the early impact of stress on child development.¹ Its use has been extended in a context of awareness of the extent of the mistreatment of children,^{2,3} as well as the severity of the consequences of exposure to multiple victimizations.⁴

ACE include different non-normative events, such as physical or psychological abuse, sexual abuse, negligence, witnessing interfamily violence, substance abuse by a family member, separation or divorce of the parents, mental illness or incarceration of a family member.⁵ Over time, these categories have been expanded, including social factors⁶ and other types of commonly experienced adversities during childhood.⁷

Several studies have allowed us to conclude that ACEs operate as a conglomerate with cumulative impact and dose-response effect. Four or more ACEs are associated with the primary risk factors for morbidity and mortality in adulthood.^{8,9} There is evidence on the association of ACEs and cancer,¹⁰ type 2 diabetes,¹¹ depression¹², suicide attempts, post-traumatic stress, addictions,¹³ psychosis,¹⁴ among other problems. These findings have led us to consider ACEs as a milestone of prevention in health.¹⁵

Retrospective research carried out in adults indicates that ACEs are frequent and co-occurring.^{9,16} In preschoolers, it is estimated that over 60% have experienced at least one ACE¹⁷ and 12.5% have experienced two or more.¹⁸ The first ACE occurs in the first year and a half of life,¹⁹ and may signify the child's entry into a risks spiral. In this regard, Dong et al.²⁰ establish that the exposure to an event increases between 2 and 18 times the probability of suffering another type of adversity.

The intergenerational transmission of ACEs^{21,22} is related to the parent's complications, which have experienced adversity early in the exercise of their role, and may involve greater stress²³ and hostility toward their preschooler children.²⁴ The exposure of children < 5 years of age to intense and diverse ACEs in the absence of stable and protective bonds that support

healthy adaptation²⁵ is associated with toxic stress,²⁶ and may have an unfavorable impact on their development, health, and education.²⁷ Therefore, it has been recommended early detection of factors that may pose a higher risk for small children.²⁸

The screening tools for potentially traumatic situations meant for children have the purpose of detecting the exposure to these types of events and the possible reactions to these experiences. Screening is the initial step of a systematic process aimed at assessing the condition in asymptomatic people. If positive, it allows focusing the diagnosis, and eventually, recommending an appropriate treatment plan.²⁹ In general, brief and universal evaluations³⁰ guided by several core principles to identify social determinants, such as favoring a conversation with parents in routine appointments for the expression of their concerns, recognize risk and protection factors in children and families, detect specific problems, and refer those for future diagnosis with the corresponding professionals.³¹

Screening ACEs in preschool children becomes relevant because of the excellent results from early interventions aimed at strengthening their environments.³² In this regard, the development of screening programs supported by standardized tools is recommended as a priority of the work with children.³³ However, no consensus exists on the best way to detect the psychosocial problems that affect families with young children.³⁴ In primary care, some programs incorporate universal screening of the ACE,³⁵ while other professionals manage to identify and successfully manage ACEs as part of their routine or to establish alliances with departments in case of a patient detection.³³

Defining screening options for ACE as precipitants of toxic stress—the most severe response in the absence of an effective reliever—is part of the challenges in a scenario in which children's physical health is closely linked to their mental and social well-being.³⁶ This review aimed to describe the available data that detail strategies and screening tools of the available ACEs parameter for the preschool population (2 to 5 years of age), to illustrate the approaches used in the general evaluation of these risk factors.

Figure 1. The systematic process for the selection of articles.

Methods

A review of the literature was carried out through an exploratory systematic review methodology.³⁷ This type of study synthesizes the scientific evidence about a health subject, allowing to develop emerging areas of study.³⁸

The search was conducted through the consultation to the following databases: Cochrane Library, EBSCO (Academic Search Complete, CINAHL Complete, Education Source, MEDLINE, MEDLINE Complete and Psychology and Behavioral Sciences Collection), PubMed, Science Direct Springer, Web of Science and Scielo.

The search terms were “*adverse childhood experiences*” and “*life events*”, combining “*screen*”, “*assess*”, “*pediatric*”, and “*paediatric*” with the Boolean operators «AND» and «OR». The search was completed from October 2016 until June 2017.

The inclusion criteria used were the following:

- a) Research published in refereed journals
- b) The publication period between January 1998 to June 2017. This restriction was established based on the year of publication of the seminal article of the ACEs parameter⁹ and the search date in the databases

c) The ACEs parameter is used in the screening of children between 2 and 5 years of age

d) The strategy or the used screening tool is described
In contrast, the exclusion criteria were as follows:

- a) Narrative reviews, book chapters, editorials, comments, letters to the editor or articles with subsequent retraction and posters
- b) Articles or chapters with inaccessible full text
- c) No restrictions were established in the language of publication

The article selection process comprised four phases (Fig. 1):

1. Identification of the articles through databases and the selected paper references
2. Selection. The title, summary, keywords and, year of each article were reviewed. Through a manual screening, the papers that did not meet the search criteria and those duplicated were eliminated
3. Eligibility. Subsequently, one of the researchers extracted the data from all the texts and then, independently, assessed their relevance according to the objective of our research, guided by the full-text article

4. Inclusion of eligible articles in the systematic exploratory review

The selected papers were synthesized and characterized according to their bibliometric variables (author, publication year, country, type, language, and journal) their objectives, results, and theme in ACEs screening.

Subsequently, we proceeded to the analysis according to the data mapping technique by Arksey and O'Malley for systematic exploratory reviews.³⁷ This approach seeks to synthesize and interpret qualitative data through a systematic process consisting of the definition of a thematic structure that arises from the papers included in the study, and the subsequent screening, mapping, and classification of data, allowing the definition of an analytical framework according to the objective.^{38,39} The extraction of the data from the screening tools had to be complemented to specify its general characteristics and confirm its applicability to the preschool population.⁴⁰ Subsequently, a categorical analysis was carried out according to the convergences and divergences found in the extracted material, as well as a global analysis of the information.

Results

Twenty academic articles that detail strategies and screening tools of the ACEs parameter available for preschool population (2 to 5 years old) were selected. Table 1 describes those that were included in this review, indicating the name of the main author, objective, year, country, type of publication, language, and journal.⁴¹⁻⁶⁰

The origin of the selected articles corresponds to the United States (80%), the Netherlands (10%), Colombia (5%) and Israel-USA (5%). In total, 90 authors were identified, ranging from 1-8 in the different publications. Of these, 12 presented authorship in more than one selected article. The totality of the data was published between 1999 and 2017, with an increase in the volume of articles from 2013 to date, which allows us to infer a growing interest in studying this phenomenon. From 1999 to 2011, all authors come from the USA. However, from 2012, the country of origin of the authors diversified.

The categorical analysis reveals that the papers give relevance to the screening of the ACE due to its harmful effects in the child development,^{46,48,49,54-58,60} as a precipitating factor for toxic stress^{42,43,47,50,56,59} or as a source of childhood stress.^{41,44,51-53}

The theme addressed is focused on four aspects: the selective screening directed to a group of high risk^{41,42,44,46,48,51,53,55,56,60} and the evaluation of a screening tool,^{44,52,54,57,58} the professional role in early clinical

detection (*case finding*),^{43,50,53,59} and the universal screening of adversities.^{45,47,49}

Of the 20 selected articles, four refer to screening strategies,^{41,49,50,59} seven report or use screening tools,^{42,46,48,52,53,57,58} and nine consider both screening strategies and tools for this purpose.^{43-45,47,51,54-56,60} Except for the article by Flynn et al.,⁴⁵ which corresponds to a systematic review, the rest is quantitative research about the studied phenomenon.^{41-44,46-60}

ACE screening strategies

The articles recognize ACE screening strategies in preschoolers as part of a fundamental role in their care. Table 2 lists the thirteen articles that address targeted screening strategies in preschool population, considering the type of study, sample, and conclusions on the subject.

In general, the screening strategy is oriented to a opportunistic, universal^{41,43,47,50,59} or selective^{44,45,49,51,54-56,60} detection. The universal screening comes from a validated and daily professional platform in the environment of families, such as the physician's pediatric care,^{41,43,47,50,59} professionals of first level health care units^{45,52,53} or through the education system.⁶⁰ In the selective screening, users are captured in scenarios such as the emergency department for adults,⁴⁴ programs aimed at a specific child population^{45,49,53-55} or referred to specialized mental health units.^{51,56}

The ACE screening strategy described in some papers integrates actions such as training those who interact with children and their caregivers as agents sensitive to stress and childhood trauma, the application of screening tools and the reception of identified cases.^{41,44,45,49,54-56}

Regarding the research of the ACEs, it explores both the current situation of the child and his family and the history of adversities.^{45,54,55,60} Two of the articles^{56,59} refer to a screening in two generations, in which the caregiver answers questions about his own childhood experience, and subsequently about those ACEs that the child at his charge has faced. Evidence suggests that data from the total number of ACE, rather than identifying each, can promote more accurate responses from caregivers.⁴⁷

The periodicity with which the screening is implemented varies. Also, it considers screening the ACEs as part of the pediatric controls,⁴¹ the admission of a child to a program,⁴⁵ in the first months after an event,^{47,54} when detecting alarm signs in the child behavior,⁴⁹ or in the presence of conditions that could constitute adversities

Table 1. General characteristics of the selected items (N = 20)

Author	Goal (s)	Year	Country	Publication type	Language	Journal
Bair-Merritt ⁴¹	Define specific and measurable elements that allow adapting the Patient-Centered Medical Home to adequately respond to the needs of patients with adverse psychosocial experiences	2015	USA	Research	English	Journal of Primary Prevention
Barrios-Acosta ⁴²	Analyze the correlation between growth and exposure to ACE in children living in unfavorable social conditions, attending a development center in the city of Bogotá, Colombia	2017	Colombia	Research	English	Journal of Child and Adolescent Trauma
Bright ⁴³	Compare the established prevalence of ACE with that estimated by pediatricians. Compare the screening practices recommended for pediatricians with those reported by them. Evaluate the prevention and intervention recommendations, the barriers perceived when screening, and positive ACE screenings management; Also define the prevalence of physicians who have had formal training on ACE	2015	USA	Research	English	Journal of Health Care for the Poor and Underserved
Diderich ⁴⁴	Assess whether the Hague Protocol for the screening of domestic violence, substance abuse, suicide attempts or other serious psychiatric problems, among adult consultants in the Medical Emergency, allows identifying children at high risk of abuse	2013	Holland	Research	English	Child Abuse and Neglect
Flynn ⁴⁵	Systematically evaluate the evidence for the prevention and treatment of childhood traumatic stress in primary care	2015	USA	Research	English	Academic Pediatrics
Ghosh ⁴⁶	Reanalyze data from a randomized controlled trial that examines whether parent-child psychotherapy is effective for children who have experienced multiple stressful and traumatic life events	2011	USA	Research	English	Child Abuse and Neglect
Gillespie ⁴⁷	To assess the feasibility of implementing a parental ACE assessment tool in the pediatric context. Determine differences in the disclosure of ACE when inquiring about the disaggregated ACE versus consulting the total number of ACE. Evaluate the acceptance of the providers of the parental ACE evaluation	2017	USA	Research	English	Journal of Child and Adolescent Trauma
Graham-Bermann ⁴⁸	Determine the types of traumatic event to which preschoolers are exposed. Establish the symptoms and their expression on preschoolers. Specify the group of symptoms or categories associated with the different traumatic events	2008	USA	Research	English	American Journal of Orthopsychiatry
Holmes ⁴⁹	Report the development of a model to create a culture informed by trauma, which allows knowing the needs of young children in pre-school contexts	2015	USA	Research	English	Journal of Child and Family Studies
Kerker ⁵⁰	Describe how often pediatricians ask parents about ACEs. Describe how familiarized pediatricians are with the original ACE study. Identify the characteristics, training and attitudes/beliefs of physicians about ACEs	2016	USA	Research	English	Academic Pediatrics

(Continue)

Table 1. General characteristics of the selected items (N = 20) (*Continued*)

Author	Goal (s)	Year	Country	Publication type	Language	Journal
Lamers-Winkelmann ⁵¹	Establish whether the severity and duration of intimate partner violence and ACE are related to behavioral problems, emotional problems and trauma in children exposed to domestic violence	2012	Holland	Research	English	Child Abuse and Neglect
Marie-Mitchell ⁵²	Evaluate a tool to screen ACE and explore its ability to distinguish early outcomes among low and high-risk children	2013	USA	Research	English	Academic Pediatrics
Marie-Mitchell ⁵³	Explore the perspective of low-income caregivers and minorities to inform about the design of pediatric interventions to prevent mental health problems	2016	USA	Research	English	Families, Systems, and Health
McKelvey ⁵⁴	Evaluate the exposure to ACE (0-5 years). Examine parental beliefs and behaviors that can be positively screened with an ACE index. Examine whether the psychosocial well-being of children is negatively impacted by the ACEs	2016	USA	Research	English	Child Abuse and Neglect
McKelvey ⁵⁵	Identify patterns of ACE exposure in children (0-3 years) of low socioeconomic status	2017	USA	Research	English	Child Abuse and Neglect
Murphy ⁵⁶	Describe a group intervention of trauma based on attachment, aimed at vulnerable families with children (0-3 years). Present the results of a clinical trial to illustrate some of the challenges faced by parents and children	2015	USA	Research	English	Family Community Health
Saylor ⁵⁷	Present the Pediatric Emotional Distress Scale (PEDS), describing the data obtained from the clinic and school samples; the analysis of reliability and validity with children exposed to traumatic events and without a history in this regard; its clinical use and the possible areas of development and research	1999	USA	Research	English	Journal of Clinical Child Psychology
Saylor ⁵⁸	Summarize data from 4 years of surveys applied to diverse samples to establish the rates of potentially traumatic life events in children with special needs, versus children without this condition	2009	USA	Research	English	Child Psychiatry and Human Development
Szilagy ⁵⁹	Examine pediatric practice about asking parents about adversity	2016	USA	Research	English	Academic Pediatrics
Wolmer ⁶⁰	Describe the psychological responses of young children to missile attacks	2015	Israel-USA	Research	English	Journal of Traumatic Stress

Table 2. Study type, sample, and conclusions on the screening strategy aimed at the preschool population (N = 13)

First Author	Year	Study type	Sample	Conclusions concerning the screening strategy ACE
Bair-Merritt ⁴¹	2015	Observational descriptive cross-sectional	37 experts in psychosocial adversity, coming from diverse disciplinary and labor areas	Universal and opportunistic application of a screening tool for current and past adversities in children is emphasized. It is suggested that caregivers complete the screening tool before the appointment. It is not specified what adversities should be included in the screening
Bright ⁴³	2015	Observational descriptive cross-sectional	210 pediatricians	Participants attach importance to ACE screening. A part of them carries out an opportunistic universal screening directly with the child and their caregivers. However, the ACEs are not necessarily screened completely nor do they have a homogeneous frequency of inquiry and importance among them
Diderich ⁴⁴	2013	Quasi-experimental pretest-post-test with control group nonrandom	222,647 adults	The Hague Protocol identifies 91% of children at risk of abuse through the screening of adults in emergency care for domestic violence, substance abuse, suicide attempts or other problems
Flynn ⁴⁵	2015	Systematic review	10 items	Interventions to prevent or treat traumatic stress in children consider screening as part of a set of actions that include the training of professionals, the connection with social workers or nurses and the delivery of educational material for families and physicians
Gillespie ⁴⁷	2017	Analytical longitudinal observational cohort	2,283 parents	Parents declared more ACE when the instrument used requested the total number of experiences, instead of individualized. Parents and pediatricians evaluate how useful it is to discuss the relationship between their traumatic experiences and the way parenthood is exercised. The ACE is integrated into a confidential record, different from the clinical record
Holmes ⁴⁹	2015	Quasi-experimental pretest-post-test without a control group	81 children 31-76 months	The screening of childhood trauma in the context of a comprehensive improvement program for the learning and development of preschool children (Head Start, USA), contemplates training those who interact with children to understand childhood emotions and recognize traumas, apply screening tools in case of possible cases. Case confirmation activates services of a trauma-sensitive platform
Kerker ⁵⁰	2016	Observational descriptive cross-sectional	302 pediatricians	The attitudes and beliefs of pediatricians are related to their ACE screening practice. In general, pediatricians do not use frequently screen ACE, or they do not screen them completely
Lamers-Winkelmann ⁵¹	2012	Transversal correlational	208 children 2-12 years	Children who witness domestic violence are also exposed to other ACE. Therefore, they constitute a high-risk group to screen for ACE
McKelvey ⁵⁴	2016	Transversal correlational	1,282 children 13-53 months	ACE screening can be done in a family-friendly context through platforms such as home visits or other programs
McKelvey ⁵⁵	2017	Observational descriptive longitudinal	2,250 children 14 to 36 months	The patterns of exposure to ACE are associated with differentiated impacts according to whether the adversity is proximal or distal about the time of screening. Proximal ACEs impact the cognitive, physical and language development; ACE is occurring proximally or distally affect the child's social-emotional health. Therefore, the screening tools must evaluate the current situation and the children's history
Murphy ⁵⁶	2015	Assay clinical controlled trial	60 mothers and 60 children 0-3 years	Screening is used in two generations, the exposure of the mother to ACE is studied, and after the ACE the child has experienced is explored
Szilagy ⁵⁹	2016	Observational descriptive transversal	302 pediatricians	Pediatricians value the influence of positive parenting on the children's life trajectory, the influence they can exert on parental skills and the screening of socio-emotional risks as part of their work. However, most pediatricians do not screen for ACS
Wolmer ⁶⁰	2015	Observational Descriptive transverse	122 c hildren 3-6 years	Screening of stressful life events should consider the current situation of children as well as his life history

for children, such as war contexts⁶⁰ or problems that involve their caregivers.^{44,51,56} This topic is highlighted in the Hague Protocol,⁴⁴ intended to investigate domestic violence, substance abuse, attempted suicide or other serious psychiatric problems among adult consultants in the medical emergency. Ninety-one percent of the cases identified through this protocol was confirmed, revealing a high predictive value and a notable increase in the detection of cases in the Dutch regions in which it is applied.

Among the behaviors and beliefs of professionals about screening, it is established that the importance attributed to ACEs does not necessarily imply that they will be consulted.^{43,59} Also, the frequency of search for ACE is different. For example, it asks more for divorce than for the imprisonment of a family member.⁴³ On the other hand, the generation of *rappor*t among the examiner and the caregivers is highlighted as a way to identify ACE and favor parental commitment to their child well-being.^{43,54,56} Similarly, feedback to those who screen, indicating whether the case was confirmed or not, is associated with the motivation of the professionals in this process.⁴⁴

Barriers to the screening process are often not reported. However, in the study by Bright et al.,⁴³ a reference is made to the lack of resources, lack of instruments, and the overload of screening that must be carried out.

The harmful effects of screening are not reported among the selected articles.

ACE screening tools

In the selected articles, all the tools screen for children's adversities through consultation with the responsible adult,⁴²⁻⁶⁰ although it is also valid to address the issue directly with the children.⁴³ Screening is carried out based on interviews^{43,50,53,59,60} or through questionnaires.^{42,44-46,48,52-58} Table 3 describes the questionnaires used in the articles to screen ACE in the preschool population.

Screening conducted through open or semi-structured interviews is widely used,^{43,50,53,59,60} but it may be associated with an increased risk of bias on the part of the person applying the tool. On the other hand, the questionnaires are differentiated between those that address adversities, such as the risk of child abuse or drug abuse by caregivers,^{44-46,48,57,58} and those specifically designed to inquire about the ACE.^{42,52-56} In the case of the former, their use is combined with

information from sources such as records of the child's history and, together with the information provided by the instrument itself, allow the reconstruction of the categories of the ACE parameter by dichotomizing the presence or absence of adversities, and add them to obtain the number of childhood adversities.⁴⁶ Although the questionnaires designed to investigate directly in the ACE in preschool children^{42,47,52-55} come from the definitions of the seminal study,^{9,20} complemented by the scientific evidence related to the topic.⁶¹ From them, the Child-ACEs^{52,53} and the FMI-ACEs^{54,55} have proven to be tools with validity and sensitivity to screen high-risk children: in the context of pediatric care in the first case, and of home visits in the second.⁶¹

Discussion

During the last decades, the study of ACE in preschoolers has generated a growing interest that is supported by the progressive increase of articles identified as of 2013. The results of the systematic exploratory review around the screening of ACEs in preschool children lead to conclude that this is an emerging topic at the research level, but still in progressive development. This fact contrasts with a large number of approaches to the subject reported in book chapters,⁶² unindexed journals,⁶³ broadcast and other resources, such as posters.⁶⁴

The selected articles describe some strategies and tools that can help prevent the child's entry into an escalation of risks, through early detection. In general terms, ACE screening responds to the principles for the identification of social determinants,³¹ but without yet forming a chain of evidence that supports the process from the research to the proven reduction in morbidity and associated mortality. Moreover, in recent years, new tools are being used to screen ACE in preschool children, which open the possibility to obtain empirical data that could permit evidence-based decision-making. Similarly, the design, implementation, and evaluation of screening in other contexts, such as education, where there is daily contact between professionals, children, and their caregivers, can promote an alliance that enhances good results.

The limited number of Latin American research on the topic leads us to suppose that this issue represents a challenge. The design of strategies and the use of culturally adapted tools, implemented in a collaborative framework that anticipates the emerging care requirements resulting from screening, is an imperative need

Table 3. Description of the questionnaires used to screen ACE in preschoolers (N = 11)

First author	Name of the tool	Overview tool	Purpose of the tool
Barrios-Acosta ⁴²	ACE-Plus	12 questions questionnaire aimed at parents	Based on the ACE questionnaire developed by Dong et al. ²⁰ adds two articles: (a) Maternal consumption of alcohol or drugs in pregnancy and (b) Child or siblings under state protection measures before evaluation
Diderich ⁴⁴	CARE-nl	18 questions questionnaire aimed at caregiver of children aged 0-18 years	Risk assessment of child abuse that inquires factors from parents, child, the relationship between them, and from the rest of the family
Flynn ⁴⁵	Parent Screening Questionnaire (PSQ)	Self-report 20 questions questionnaire aimed at parents of children between 0-5 years	Evaluates safety, exposure to domestic violence, drugs abuse by the caregiver, maternal depression, and parental stress
Flynn ⁴⁵	Pediatric Symptom Checklist (PSC)	35 questions questionnaire for parents of children between 4 and 16 years	For the recognition of children with cognitive, emotional and behavioral problems
Flynn ⁴⁵	WE CARE	Self-report ten questions questionnaire aimed at parents	Screen psychosocial problems that affect family: alcohol abuse, child care, depression, domestic violence, drug abuse, the risk of losing their home, low education, inadequate food supply, cigarette consumption, unemployment
Graham-Bermann ⁴⁸	The Preschool Posttraumatic Stress Symptoms Inventory (PPSSI)	Open-ended questions questionnaire and 17 articles for caregivers of preschool children.	Screens the symptoms of post-traumatic stress disorder (PTSD) that preschoolers can present
Lamers-Winkelmann ⁵¹	Trauma Symptom Checklist for Young Children (TSCYC)	90 direct questions questionnaire aimed at caregivers	Screens the symptoms of post-traumatic stress disorder (PTSD) that children between 3 and 12 years can present
Marie-Mitchell ^{52,53}	Child ACE Tool (C-ACE)	41 questions questionnaire aimed at caregivers	Explores the ACE of 4-5 years children
McKelvey ^{54,55}	Family Map Inventory ACEs (FMI-ACEs)	Nine questions questionnaire aimed at caregivers	Explores the ACE of 1-4 years children
Murphy ⁵⁶	ACE questionnaire	Questionnaire that examines ten categories of ACE in adults	It is used to screen ACE in adults, and also for these, in their role as caregivers, to account for the ACE that the child has suffered
Saylor ^{57,58}	The Pediatric Emotional Distress Scale for Young Children Exposed to Traumatic Events (PEDS)	Questionnaire with 21 questions directed at caregivers of children between 2-10 years	Evaluates the general child behavior and his symptoms associated with childhood trauma

for the commitment to comprehensive health for all children, particularly for preschoolers, since the effect of the ACE are more harmful at this stage of life.⁶⁵

Finally, we agree with the ideas of Van Neil et al.:⁶⁶ the screening of ACE in boys and girls can have multiple benefits, including strengthening ties with the family to build a resilient environment against adversity. However, it is necessary to understand it as a resource in favor of child welfare, and not as an instrument for the pathologization of childhood.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

Conflict of interest

The authors declare no conflicts of interest.

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