

Development of a Checklist of Potentially Traumatic Events in Children and Adolescents (CEPT-CA)

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Keywords

Checklist · Trauma · Child · Adolescent · CEPT-CA

Abstract

Introduction: Since exposure to potentially traumatic events during childhood and adolescence has been shown to be very common, its screening is very important. Our aim was to develop a self-assessment checklist to perform screening of potentially traumatic events in childhood and adolescence. **Methods:** The development of the Checklist of Potentially Traumatic Events in Children and Adolescents (CEPT-CA) was based on: (a) the structure of Life Events Checklist that has been translated, back-translated, and adapted; (b) recommendations of renowned entities about trauma in childhood; (c) particularities of potentially traumatic events in childhood; (d) adapting the language to the target population's age group; (e) Portugal's sociocultural context. The

preliminary version of the CEPT-CA was again discussed with the Review Committee. Subsequently, a pre-test was carried out with 30 children/adolescents between the ages of 7 and 18 years. **Results:** The CEPT-CA includes the assessment of 16 potentially traumatic events. It also includes a 17th item, in which "any other very difficult/stressful event" may be added. Each event can be selected according to "It happened to me," "I saw it happen to someone else," "They told me," "I'm not sure," and "Not applicable." The mean time to complete the questionnaire was 9 min. **Conclusion:** This pioneering study presents a checklist of potentially traumatic events in childhood/adolescence. This tool is useful for tracking these traumatic events, thereby allowing an early and specific assessment and intervention.

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Desenvolvimento de uma Checklist de Eventos Potencialmente Traumáticos em Crianças e Adolescentes (CEPT-CA)

Palavras Chave

Checklist · Trauma · Criança · Adolescente · CEPT-CA

Resumo

Introdução: Como a exposição a eventos potencialmente traumáticos na infância e adolescência tem-se mostrado muito comum, o seu rastreio é muito importante. O nosso objetivo foi desenvolver uma checklist de auto-preenchimento para realizar o rastreio de eventos potencialmente traumáticos na infância e adolescência. **Métodos:** O desenvolvimento da Checklist de Eventos Potencialmente Traumáticos em Crianças e Adolescentes (CEPT-CA) baseou-se: (a) na estrutura da Checklist de Eventos de Vida, que foi traduzida, contra-traduzida e adaptada; (b) recomendações de entidades de renome sobre trauma na infância; (c) particularidades de eventos potencialmente traumáticos na infância; (d) adequação da linguagem à faixa etária da população-alvo; (e) contexto sociocultural de Portugal. A versão preliminar da CEPT-CA foi novamente discutida com a Comissão de Revisão. Posteriormente, foi realizado um pré-teste com 30 crianças/adolescentes, com idades entre 7 e 18 anos. **Resultados:** A CEPT-CA inclui a avaliação de 16 eventos potencialmente traumáticos. Também inclui um 17º item, no qual “qualquer outro evento muito difícil/stressante” pode ser adicionado. Cada evento pode ser selecionado de acordo com “Aconteceu comigo”, “Vi acontecer a outra pessoa”, “Contaram-me”, “Não tenho certeza”, “Não se aplica”. O tempo médio de conclusão foi de 9 minutos. **Conclusão:** Este estudo pioneiro apresenta uma checklist de eventos potencialmente traumáticos na infância/adolescência. Esta ferramenta é útil para rastrear esses eventos traumáticos, permitindo assim uma avaliação e intervenção precoces e específicas.

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Introduction

Since exposure to potentially traumatic events (PTEs) during childhood and adolescence has been shown to be very common, its screening is very important [1–3].

The aim of this article was the development of a brief and free screening tool for PTE in childhood and adolescence:

the Checklist of Potentially Traumatic Events in Children and Adolescents (CEPT-CA). The primary goals in the development of the CEPT-CA were (a) brevity; (b) simplicity of administration and interpretation; (c) incorporation of exposure to traumatic events in children and adolescents and recommendations of renowned entities about trauma in childhood and adolescence; (d) language adaptation to the target population according to the age group; (e) evaluation of various types of PTEs; (f) evaluation of the type of exposure in which it occurred; (g) assessment of exposure to PTE throughout life; (h) enabling a later application of a posttraumatic stress disorder (PTSD) assessment instrument; (i) adaptation to Portugal's socio-cultural context.

Materials and Methods

This study is part of a research project on the impact of PTEs in childhood and adolescence in Portugal.

Translation of the Life Events Checklist for DSM-5 (LEC-5)

The CEPT-CA was developed to assess exposure to PTE in children and adolescents, with the possibility of a later application of a PTSD assessment tool. The Clinician-Administered PTSD Scale (CAPS) has been described as the gold standard instrument for the assessment of PTSD [4, 5]. Although there is no standard tool, an instrument that has been widely used and a reference for application in association with the CAPS is the Life Events Checklist for DSM-5 (LEC-5). The LEC was originally designed to be applied to adults and, to our knowledge, there are no life events checklists developed specifically for children and adolescents.

Firstly, permission to adapt the LEC-5 to European Portuguese (PT-EURO) and to develop a specific version for children and adolescents was obtained from the authors. As the final version of the instrument created in this study would be a completely different instrument from the original LEC version, in agreement with the authors of the LEC-5, a different name and format were chosen.

Secondly, the original version of the LEC-5 was translated into PT-EURO by two native Portuguese physicians from the fields of Adults Psychiatry and Children and Adolescents Psychiatry. The translations were carried out separately and, later, a single final version was obtained by consensus, after discussion with a Review Committee constituted by a multidisciplinary team in the field of Pediatrics and Child and Adolescent Psychiatry, affiliated to Centro Hospitalar de Lisboa Ocidental. The version obtained in this phase was then translated back into English by two physicians from Centro Hospitalar de Lisboa Ocidental, Adults Psychiatry Unit, fluent in Portuguese and English, who did not have access to the original checklist. The translations were carried out separately and were subsequently discussed. The discrepancies found were analyzed and discussed with the Review Committee in order to obtain a final version of the back-translated checklist.

Targeted Domains and Dimensions

To determine the specific types of PTE to be assessed, several aspects were taken into account: (a) brevity – as brevity was one of the priorities, we included a smaller number of items that were

more global, rather than a larger number, but more specific, similar to the format of the original LEC-5; (b) simplicity of administration and interpretation – the language was adapted so that children between 7 and 18 years of age could understand it better and allowing for self-report; (c) incorporation of exposure to traumatic events in children and adolescents and recommendations of renowned entities about trauma in childhood and adolescence – these specific factors were selected considering the recommendations of renowned entities (The Diagnostic and Statistical Manual of Mental Disorders [DSM-5], American Psychological Association [APA], Centers of Disease Control and Prevention [CDC], The National Child Traumatic Stress Network [NCTSN], and International Society for Traumatic Stress Studies [ISTSS]) and also considering the clinical experience of all experts involved in the project.

Design and Structure

The structure of the CEPT-CA follows the structure of the LEC-5, including a brief list of general PTEs. Nevertheless, it includes the possibility of adding any other event that is considered difficult or stressful.

In addition to the identification of the PTEs, the CEPT-CA was developed with the objective of allowing the selection of the type of exposure for each event, like the LEC-5.

After its construction, the preliminary version of the CEPT-CA was again discussed with the Review Committee. Subsequently, a pre-test was carried out with 30 children/adolescents between the ages of 7 and 18 years, who had experienced at least one traumatic event. The following exclusion criteria were considered: difficulties in fluency in the Portuguese language, cognitive impairment, or having a psychotic disorder. All participants and their respective caregivers/family members signed an informed consent.

After the pre-test, some minor adaptations and linguistic adjustments were made. Regarding the types of exposure, the item “part of my job” was eliminated, as it is not suitable for childhood experiences and generated great doubts in the filling process.

Administration and Scoring

Although it is a self-assessment checklist, it should be answered with the help of the interviewer, who must, in all items, confirm the existence of the event and whether it is suited for the appointed category.

There is no standard scoring method. The 16-item CEPT-CA can generate a total score that represents the number and type of events endorsed. A final item allows for the report of traumatic experiences not covered by the previous items; in this item, the investigator must always confirm that the event described does not apply to a previous event mentioned in the list. In addition, to identify the number of events experienced, the CEPT-CA can be used to capture the most difficult life event(s) and to assess the types of exposure to each PTE. More than one event and/or type of exposure can be selected, as appropriate.

Results

The complete CEPT-CA is shown in online supplementary Appendix 1 (for all online suppl. material, see www.karger.com/doi/10.1159/000522221).

The design of the checklist prioritized the inclusion of 16 main PTEs that may occur throughout childhood and

adolescence. It also includes a 17th item, in which “any other very difficult/stressful event or experience not included in the previous points” may be scored. Each event can be selected according to one of the five options “It happened to me,” “I saw it happen to someone else,” “They told me,” “I’m not sure,” and “Not applicable”; more than one option can be selected.

The mean time to complete filling in the CEPT-CA was 9 min. The minimum value was 3 min and 5 s and the maximum was 14 min and 10 s.

Discussion

The CEPT-CA aims to fill a significant gap as a brief PTE screening tool for children and adolescents. This is a pioneering study carried out with the aim of providing a comprehensive review and overview of the development of the CEPT-CA and its possible applicability.

Several features and strengths of the CEPT-CA are noteworthy and may be responsible for its more widespread use in the future. It is relatively simple, short, and easy to apply in various contexts. It is also easy to understand, with the possibility of being filled in with the help of the interviewer, enabling its application in populations of different educational levels and in a wide range of community and clinical settings, thereby increasing the potential to assess trauma in populations that would otherwise not have access to a mental health professional [6–8].

It is also easy to apply and analyze, so, although it was primarily developed for use in investigations, health professionals can also benefit from its use as an assessment tool in different mental health settings [7, 8]. In addition, as a PTE screening tool, it can be a very useful tool for the subsequent application of PTSD assessment instruments, namely for the CAPS.

Furthermore, its development considered the children’s and adolescents’ particular features, with special attention to the particularities of the PTE at this stage of development and its possible impact, and the incorporation of a language accessible to this age group. The assessment of various types of PTEs, including the entire life cycle of the child/adolescent, will also enable researchers/clinicians to characterize and understand exposure to a PTE and better and more extensively correlate it with present concerns of the child/adolescent [7].

It should also be noted that the entire elaboration of the CEPT-CA involved specialists in child health, counting on their clinical experience, but also with the theoretical component of several reference entities in this area.

Limitations

This study only includes the construction of the CEPT-CA. Thus, it will be important, in the future, to apply the checklist to a sample and to test essential parameters, such as validity and reliability.

Conclusion

This study allowed the construction of a checklist of PTEs, taking into consideration the specific factors of childhood and adolescence. As such, it can be an extremely useful tool for tracking these experiences, allowing an earlier assessment and therapeutic intervention. In the future, studies will be needed so that the checklist can be validated.

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Statement of Ethics

Throughout the study, the ethical and deontological principles recommended for research in the area of Health Sciences were complied with, as described in the Declaration of Helsinki, World Health Organization, and European Community. This study protocol was reviewed and approved by the Ethics Committees of the hospitals involved in the study (Centro Hospitalar de Lisboa Ocidental, Hospital Fernando da Fonseca e Hospital Beatriz Ângelo). All participants and their respective caregivers/family members signed an informed consent.

References

- 1 Lewis SJ, Arseneault L, Caspi A, Fisher HL, Matthews T, Moffitt TE, et al. The epidemiology of trauma and post-traumatic stress disorder in a representative cohort of young people in England and Wales. *Lancet Psychiatry*. 2019;6(3):247–56.
- 2 Costello EJ, Erkanli A, Fairbank JA, Angold A. The prevalence of potentially traumatic events in childhood and adolescence. *J Trauma Stress*. 2002;15(2):99–112.
- 3 Mueser KT, Taub J. Trauma and PTSD among adolescents with severe emotional disorders involved in multiple service systems. *Psychiatr Serv*. 2008;59(6):627–34.
- 4 Nader K, Kriegler JA, Blake DD, Pynoos RS, Newman E, Weathers FW. *Clinician-administered PTSD scale: child and adolescent version*. White River Junction, VT: National Center for PTSD; 1996.
- 5 Weathers FW, Blake DD, Schnurr PP, Kaloupek DG, Mark BP, Keane TM. *The life events checklist for DSM-5 (LEC-5)*. White River Junction, VT: National Center for PTSD; 2013 [cited 2020 Apr 2]. Available from: www.ptsd.va.gov.
- 6 Lang JM, Connell CM. Development, and validation of a brief trauma screening measure for children: the child trauma screen. *Psychol Trauma*. 2017;9(3):390–8.
- 7 Widom CS, Dutton MA, Czaja SJ, DuMont KA. Development and validation of a new instrument to assess lifetime trauma and victimization history. *J Trauma Stress*. 2005; 18(5):519–31.
- 8 Carlson EB, Smith SR, Palmieri PA, Dalenbergh C, Ruzek JI, Kimerling R, et al. Development and validation of a brief self-report measure of trauma exposure: the trauma history screen. *Psychol Assess*. 2011;23(2):463–77.

Conflict of Interest Statement

The authors have no conflicts of interest to disclose.

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Author Contributions

Inês Barroca: substantial contribution to conception and design; obtaining the data; analysis and interpretation of data; manuscript elaboration; final approval of the submitted manuscript; research group leadership. Catarina Melo Santos: substantial contribution to conception and design; manuscript elaboration; critical review of the manuscript; final approval of the submitted manuscript. Ana Velosa: substantial contribution to conception and design; manuscript elaboration; critical review of the manuscript; final approval of the submitted manuscript. Gonçalo Cotovio: substantial contribution to conception and design; manuscript elaboration; critical review of the manuscript; final approval of the submitted manuscript. Kasia Kozłowska: substantial contribution to conception and design; analysis and interpretation of data; critical review of the manuscript; final approval of the submitted manuscript; supervision. Inês Pinto: substantial contribution to conception and design; analysis and interpretation of data; critical review of the manuscript; final approval of the submitted manuscript; supervision. Paula Saraiva Carvalho: substantial contribution to conception and design; analysis and interpretation of data; critical review of the manuscript; final approval of the submitted manuscript; supervision.

Data Availability Statement

The data that support the findings of this study are not publicly available due to their containing information that could compromise the privacy of research participants but are available from the corresponding author (I.B.).