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Impact of COVID-19 pandemic on characteristics, extent and trends in child maltreatment in 34 Euro-CAN COST Action countries: a scoping review protocol

Sinem Cankardas ,[1] Nara Tagiyeva-Milne,[2] Mélanie Loiseau,[3,4] Aideen Naughton,[5] Chryssa Grylli,[6] Clarissa Sammut - Scerri,[7] Jolanta Pivoriene,[8] Johanna Schöggl,[6] Anastasia Pantazidou,[6] Catherine Quantin ,[9,10] Eva Anna Mora-Theuer[6]

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For numbered affiliations see end of article.

Correspondence to
Eva Anna Mora-Theuer; eva.mora-theuer@meduniwien.ac.at

ABSTRACT

Introduction While the factors commonly associated with an increased risk of child maltreatment (CM) were found to be increased during COVID-19, reports of actual maltreatment showed varying trends. Similarly, evidence regarding the impact of COVID-19 on CM within the European Cooperation on Science and Technology and Network Collaborative (COST) Action countries remains inconsistent. This scoping review aims to explore the extent and nature of evidence pertaining to CM within the countries affiliated with the Child Abuse and Neglect in Europe Action Network (Euro-CAN), funded by the COST.

Methods and analysis Key electronic databases were searched to identify eligible papers, reports and other material published between January 2020 and April 2023: PubMed, EMBASE, PsycINFO, Social Policy and Practice, Scopus and Web of Science. To cover the breadth of evidence, a systematic and broad search strategy was applied using a combination of keywords and controlled vocabulary for four concepts: children, maltreatment, COVID-19 and Euro-CAN countries, without restrictions on study design or language. Grey literature was searched in OpenGrey and Google Scholar. Two reviewers will independently screen full-text publications for eligibility and undertake data extraction, using a customised grid. The screening criteria and data charting will be piloted by the research team.

The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) extension for scoping reviews will be followed to present the results. Results will be summarised in a tabular form and narratively.

Ethics and dissemination This review will identify and summarise publicly available data, without requiring ethical approval. The findings will be disseminated to the Euro-CAN Network and reported to the COST Association. They will also be published in a peer-reviewed journal. This protocol is registered on Open Science Framework.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This is the first review to systematically and comprehensively map the evidence on child maltreatment during the COVID-19 pandemic in the countries affiliated to the European Cooperation on Science and Technology and Network Collaborative-funded Action Network on Child Abuse and Neglect in Europe, adhering to the Preferred Reporting Items for Systematic reviews and Meta-Analyses-Scoping Review guidelines to ensure rigour, transparency and replicability.

⇒ A well-balanced across relevant expertise and perspectives multidisciplinary team of paediatricians, public health professionals, clinical psychologists, epidemiologists, sociologists, forensic scientists and methodologists, capable of effectively supporting all stages of the review process from developing a viable question to performing the technical aspects of the review.

⇒ The generated evidence will be important in shaping the direction of future policies, practices and research.

⇒ Possible omission of relevant publications due to limited sources of grey literature and potential language limitation during the paper selection process.

⇒ Due to the nature of the data, they are subject to considerable publication and reporting bias.

INTRODUCTION

The WHO defines child maltreatment (CM) as 'actual or potential harm to the child's health, survival, development, or dignity' caused by sexual, physical, emotional abuse or neglect.[1] CM is a significant public and social health concern with profound and lasting physical and mental health effects.[2] It is a common problem encountered by psychologists and other professionals in clinical settings.[3] CM's

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burden and long-term consequences are well recognised in both low-income and high-income countries.[4–9]

Globally, 23% and 13% of children report lifetime physical and sexual abuse, respectively.[10 11] Excluding minor violence, over a billion children faced past-year violence, with over half in Africa, Asia and Northern America, over a third in Latin America, and 8%–31% in Europe.[12] In affluent nations, one in five children encounter physical abuse, and Europe's rates exceed 70% for all violence.[12 13] [1] Many abused or neglected children experience multiple maltreatment forms.[14]

Before COVID-19, data from European countries revealed long-term declines in CM overall, with some showing CM rates remained stable.[15–17] The pandemic's impact on CM is uncertain. COVID-19 exacerbated known maltreatment triggers, such as unemployment, economic strain, social isolation and parental depression.[18] Additionally, the pandemic spurred online activity, evident in a 30% increase in internet usage in European countries, and the expansion of technology-facilitated communication, possibly elevating the risk of online abuse, including children's exposure to cyberbullying, sextortion, cyberstalking, sexual and other exploitation.[19–22]

WorldVision estimated a 20–30% global rise in CM during the first 3 months of COVID-19 restrictions and an increase of 759 600–1 215 360 maltreated children in Europe alone.[23] Studies from the USA, on the other hand, highlighted reduced CM reports and declining hospitalisation rates.[24 25] Findings from different countries in Europe are also mixed. Some have reported a rise in physical abuse injuries, in emergency visits due to physical abuse, or in children witnessing domestic violence and verbal abuse during this period.[26–28] Data from 48 children's helplines across 45 countries, including European nations, presented inconsistent results.[29] Likewise, global cyber abuse trends during COVID-19 exhibited divergent patterns.[30–32]

Differences in legal frameworks, varied definitions and classifications of CM types across disciplines and sectors, diverse methodologies and inconsistent reporting collectively hamper cross-population comparisons and temporal assessments of CM.[27 33–36] Evolving understanding and recognition of CM forms further complicates the matter.[37] Cultural variations and under-reporting due to fear or stigma can also distort accurate comparisons. The pandemic exacerbated the reporting issue, as measures to control the virus disrupted primary maltreatment detection systems.[38] The closure of schools, which played a crucial role in identifying and reporting CM, combined with the suspension of other children's activities, resulted in fewer interactions with potential reporters, limiting ways for children to seek help.[29] This environment also increased the risk of online abuse and exploitation, areas already challenged by under-reporting.[22 39]

Given a broad and complex topic, diversity of information sources and types of data identified through the pilot search, a scoping review was considered the most suitable approach to explore the range and nature of existing evidence.[40] The preliminary search revealed no current or ongoing systematic reviews or scoping reviews on this specific population in these countries and contexts. Although Kourti *et al* systematically reviewed the effect of COVID-19 on domestic violence, they only included the publications until July 2020 and did not focus on the European countries.[41]

Child Abuse and Neglect in Europe Action Network (Euro-CAN) is an European Cooperation on Science and Technology and Network Collaborative (COST) Action—funded multidisciplinary network (COST-Action-19106:"Multi-Sectoral Responses to Child Abuse and Neglect in Europe") of a diverse group of researchers and child protection professionals from 34 European countries and neighbouring regions. The network has been established to promote a unified European CM data collection system. One of the Euro-CAN working groups is concerned with the surveillance and monitoring of CM cases during the COVID-19 pandemic. Therefore, the objective of this scoping review is to map existing evidence on the characteristics, extent and trends in CM over the COVID-19 pandemic in Euro-CAN COST Action member countries. The review will identify the type of and gaps in available evidence and ascertain the need and feasibility of conducting a systematic review.[42]

The broader implication of this line of inquiry is to enhance preparedness in protecting children's well-being in the face of future pandemics. Recommendations to comprehensively investigate the broader impact of pandemics on children, with a particular focus on vulnerable populations have been proposed.[43] This review will lay a foundation for developing strategies to prevent CM in potential future pandemics playing a pivotal role in shaping the planning of child protection and well-being services in European countries.

METHODS AND ANALYSIS

This scoping review will follow the methodological framework by the Joanna Briggs Institute (JBI).[44] The protocol is written using the JBJ guidance for the development of scoping review protocols.[45] This review will be reported according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) extension for scoping reviews statement.[46]

This protocol is registered on Open Science Framework (https://osf.io/y8cas).

Review questions

The aim of this scoping review is to investigate available evidence on the impact of COVID-19 on CM in Euro-CAN COST Action countries.

The primary review questions are:

1. What were the extent and characteristics of maltreatment experienced by children in Euro-CAN COST Action countries during the COVID-19 pandemic?
2. Did the extent of CM change (increase or decrease) during the COVID-19 pandemic in the Euro-CAN

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COST Action countries compared with before the COVID-19 pandemic?
3. What were the key factors contributing to CM in Euro-CAN COST Action countries during the COVID-19 pandemic?

The sub-questions are as follows:

1. What are the nature and extent of evidence available on CM in Euro-CAN COST Action countries during COVID-19?
2. What are the limitations and gaps in evidence on CM in Euro-CAN COST Action countries during COVID-19?
3. Is a systematic review an appropriate next step in this research inquiry?

Eligibility criteria

The Population, Concept, Context (PCC) model was used in determining the inclusion criteria for this review.[47]

The population of interest for this review will be children under 18. No limitations will be applied regarding individual characteristics.

The concept under review is CM, which falls under the broader category of violence against children. 'CM' serves as an umbrella term encompassing child abuse and neglect, two main forms of harmful behaviour against children, active and passive, respectively.[1 48] Child abuse is further subdivided into physical, sexual and emotional abuse, while 'neglect' is categorised into physical and emotional neglect.

Any type of maltreatment within these forms and categories, of any severity, duration, settings and location, perpetrator's characteristics, methods of identification and reporting, one or multiple types, new or recurrent cases, are eligible for the review. Modern types of online abuse and exploitation, such as cyberbullying, trolling, grooming or sexting will be also included, as well as distinct forms of CM, such as witnessing intimate partner violence or witnessing domestic violence, which according to the WHO definition will be considered under the category of emotional abuse.[49 37]

The context is Euro-CAN COST Action Member Countries during the COVID-19 pandemic period. Euro-CAN is the designation of the COST-Action-19106 (CA-19106) project, titled 'Multi-Sectoral Responses to Child Abuse and Neglect in Europe: Incidence and Trends'. This network, at the time of the literature search, consisted of 34 out of 39 eligible countries in the European Region eligible for COST support. For the complete list of these 34 countries, please see online supplemental appendix 1. Each of the 34 countries represente in Euro-CAN has designated member delegates actively engaged in the network's working groups. These delegates can directly communicate with relevant experts in their respective countries, allowing them to verify any findings through the extensive network.

The context also includes factors during COVID-19, such as public health containment measures, parental stress and family tensions, that affect CM, and differences and changes in these factors across countries and pre- and during COVID-19.

Type of evidence

This review aims to identify all types of evidence available on the topic of interest and due to the broad nature of the questions and expected diversity of information sources, it will consider any research design and methods: primary studies and reviews, quantitative and qualitative, experimental, and observational, including cross-sectional, case–control, cohort studies, case reports and case series.

All types of reports based on any sources of evidence and data origin and collection approaches will be considered for inclusion in the review: self-reports, proxy reports, hospital records, public health statistics, police reports, clinical reports, journal articles, conference proceedings, and others.

Sources of evidence across a range of contextual factors or settings, including income, socioeconomic, cultural, geographical, community-based or healthcare-based, will be eligible for inclusion.

Exclusion criteria

The review will not consider books, book chapters, editorials, commentaries, letters, guidelines, policy documents, discussion and working papers, expert opinions, theoretical concepts, proposed frameworks, websites, or blogs.

As we are interested in maltreatment experienced by children during the pandemic, reports on adverse childhood experiences, which are experiences of adult survivors of CM will not be included in the review.[50]

Identifying relevant studies

Due to the nature of the topic and heterogeneity of evidence, established in the preliminary searches, the search strategy for this review will aim to be broad and cover both published and grey literature. To ensure its comprehensiveness and sensitivity, the search strategy was developed in consultation with librarians at the Medical University of Vienna.

Electronic database searching

Librarians at the Medical University of Vienna, who are experts in scientific database searches for scoping reviews, were consulted and involved in developing the search strategy.[51]

A search was conducted in the following electronic databases that comprehensively cover a broad range of disciplines, including medicine, health and social care, behavioural and social sciences: PubMed, Embase (EBSCO), PsycINFO (EBSCO), Social Policy and Practice (OVID), Scopus and Web of Science.

A three-step search strategy was used.[44] In the first step, an initial limited search was carried out in two online databases, EMBASE and PsycINFO.

Following the Cochrane Handbook recommendations, the structure of the search strategy is informed by the following major concepts: children, maltreatment, COVID-19 and Euro-CAN COST Action countries.

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Table 1 Search concepts for a scoping review on child maltreatment during COVID-19 in Euro-CAN COST-Action countries

Concept/theme	Keywords
Child	child* OR adolescen* OR infan* OR teen* OR youth* OR girl* OR boy* OR minor* OR baby* OR babies*OR toddler* OR paediatr* OR pediatr* OR newborn* OR juvenile* OR neonat* OR famil* OR preteen* OR underage* OR pubert* OR pubescen* OR pre-teen*
COVID-19	covid* OR 'sars cov 2' OR coronavirus* OR 'corona virus*' OR pandemic* OR ncov*
Maltreatment	abus* OR maltreat* OR mistreat* OR neglect* OR violen* OR harm* OR cruel* OR abandon* OR groom* OR manipulat* OR exploit* OR molest* OR bully* OR harass* OR victim* OR intentional injur* OR punish* OR incest* OR assault*
Euro-CAN COST-Action countries	german* or swed* or austria* or cypr* or denmark* or danish* or spain* or spanish* or estonia* or albania* or moldov* or france* or french* or uk or 'united kingdom*' or britain* or british* or england* or scotland* or scottish* or wales* or welsh* or greece* or greek* or hungar* or croatia* or italy* or italian* or israel* or iceland* or lithuania* or latvia* or macedonia* or malta* or maltese* or norway* or norwegian* or netherlands* or dutch* or holland* or portug* or poland* or polish* or romania* or slovenia* or turk* or belgium* or belgian* or bosnia* or herzegov* or bulgaria* or switzerland* or swiss* or ireland* or irish* or europ*

COST, European Cooperation on Science and Technology and Network Collaborative; Euro-CAN, Child Abuse and Neglect in Europe Action Network.

Synonyms, alternative terms, along with their variations and corresponding controlled vocabulary specific for each database (Emtree and APA Thesaurus of Psychological Index Terms for Embase and PsycINFO, respectively) were identified for each concept. The free-text keywords were truncated appropriately to retrieve all their variants.[52]

The free-text and controlled vocabulary terms were combined using the 'OR' operator within each concept and the 'AND' operator between the concepts as presented in table 1.

The generic search string that was used in all databases is presented below:

(child* OR adolescen* OR infan* OR teen* OR youth* OR girl* OR boy* OR minor* OR baby* OR babies*OR toddler* OR paediatr* OR pediatr* OR newborn* OR juvenile* OR neonat* OR famil* OR preteen* OR underage* OR pubert* OR pubescen* OR 'pre-teen*') AND (abus* OR maltreat* OR mistreat* OR neglect* OR violen* OR harm* OR cruel* OR abandon* OR groom* OR manipulat* OR exploit* OR molest* OR bully* OR harass* OR victim* OR intentional injur* OR punish* OR incest* OR assault*) AND (covid* OR 'sars cov 2' OR coronavirus* OR 'corona virus*' OR pandemic* OR ncov*) AND (german* or swed* or austria* or cypr* or denmark* or danish* or spain* or spanish* or estonia* or albania* or moldov* or france* or french* or uk or 'united kingdom*' or britain* or british* or england* or scotland* or scottish* or wales* or welsh* or greece* or greek* or hungar* or croatia* or italy* or italian* or israel* or iceland* or lithuania* or latvia* or macedonia* or malta* or maltese* or norway* or norwegian* or netherlands* or dutch* or holland* or portug* or poland* or polish* or romania* or slovenia* or turk* or belgium* or belgian* or bosnia* or herzegov* or bulgaria* or switzerland* or swiss* or ireland* or irish* or europ*)

This search string was translated to each database to include their specific controlled vocabulary. See online supplemental appendix 2 for the full search history that includes controlled vocabulary terms in the Embase database.

The text words in the titles and abstracts, as well as the index terms of the relevant papers retrieved at the initial stage, were used to finalise the search terms and develop the sensitive second-step search strategies, adapted for each of the selected electronic databases. The third step will be carried out to identify additional relevant papers and will include searching the reference lists and forward searching citations of the eligible papers that have been selected for the review.

Supplementary literature searching

The grey literature search was carried out on 'OpenGrey' via 'DANS EASY Data Archive' and will be performed in Google Scholar using combinations of the keywords and index terms finalised for the database search.

The authors of key papers and known experts in the field will be contacted with a list of selected papers for any missing or ongoing/unpublished studies.

Search limitations

There will be no search restriction by publication language. The review team members are fluent in English, German, French, Turkish, Greek, Russian and Lithuanian languages and therefore papers published in these languages will be included in the review. A pragmatic approach will be adopted with regard to identified publications in other languages. The review team will engage with the Euro-CAN network and personal professional networks to facilitate the inclusion of all relevant papers. This approach aims to ensure the comprehensiveness of the review, with only a minimal possibility that publications may be identified in languages that are not

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feasible to translate, even with the assistance of a broader network.

All searches will be limited to the publication period from January 2020 to April 2023. The end date for the search was chosen based on the WHO Director-General's declaration in May 2023 which marked the end of COVID-19 as a public health emergency.[53]

Study selection and management

Identified references from all databases and sources will be imported to the Zotero reference management software package and de-duplicated, before being screened for eligibility.[54]

We will undertake a pilot test of random 25% titles/abstracts by the whole team against eligibility criteria and definitions. Titles and abstracts of papers identified through the searches will be screened against the prespecified inclusion/exclusion criteria for potentially eligible studies. Full papers that are deemed relevant in the initial screening will be retrieved and evaluated in detail against the full inclusion/exclusion criteria. Papers excluded at full-text screening and reasons for the exclusion will be reported as an appendix. The papers that fulfil all the inclusion criteria will be selected for the review. These steps will be carried out by two researchers independently. Disagreement between the researchers will be resolved by consensus or arbitration involving a third researcher where necessary.

The final search results and the process of paper selection will be summarised using a PRISMA flow diagram[46] and narratively described.

Charting the data

A data charting form will be developed by the review team and pretested to ensure the form is easily and consistently interpreted and captures all relevant information (see online supplemental appendix 3 for a draft data extraction form). The results of the testing will be discussed, and the data charting form will be revised.

Two reviewers will independently extract data from all included papers. The completed forms will be compared for consistency and discrepancies resolved by consensus or referral to a third researcher if necessary. The agreed data will be entered into the master database.

The following key information from each included paper will be extracted: title, author(s), journal and year of publication, publication type, country where the study was published/conducted, aims/purpose, type of study/study design, study population and size, type of reported CM, methodology/methods, outcomes, and key findings related to the review questions. Defining categories of temporary public health and social measures introduced during the pandemic (such as partial, full, first lockdown, second lockdown, etc) a priori, is challenging due to variations in timeframes and implemented measures across different countries. Therefore, these data will be extracted exactly as outlined in the papers and categorised as necessary during the analysis stage of the review.

The content of the data charting form will be updated as required in an iterative process with a description and justification of changes recorded and presented as an appendix.

In case of incomplete or unclear reporting, where needed and possible, authors of the papers will be contacted for clarification and further information.

Collating, summarising and reporting the results

Narrative (descriptive) collation and summary of the results will be produced around research questions, key identified factors and themes. Key findings will be summarised in a systematic way in the text, in a tabular form or graphically, as appropriate, focusing on types and extent of maltreatment in children.

The results will include a description of the type and volume of literature available on the topic of interest over the period of interest aggregated by the study design, country, population and the timing of the study in relation to the COVID-19 pandemic and country-specific lockdown measures. Similarly, summaries of outcomes will be categorised by changes in numbers and/or type of maltreatment over time.

A link between the impact of maltreatment and the responses of different countries to the pandemic, including their respective social restrictions, school closures and other related measures will be investigated if data are available. The literature will be explored to identify any reported correlations between the prevalence of CM and the specific pandemic response strategies implemented by each country. The identified links between maltreatment trends and the varying pandemic responses across different countries will be reported.

Quantitative data will be reported as counts, frequencies and percentages. Qualitative data will be presented as concepts, themes and characteristics generated from the extracted data. While overall narrative characterisation of the type and quality of available evidence will be provided, the expected heterogeneity of the included studies and other sources of evidence will make formal critical appraisal inappropriate or difficult to standardise, and it is not required in a scoping review.[45] Therefore, methodological quality assessment of the included studies or formal synthesis of the data will not be carried out.

Similarly, the anticipated high level of methodological and/or clinical heterogeneity in the included sources from which the data will be derived and the diverse nature of the data will make it impossible to conduct a meta-analysis.

Results will be reported using the PRISMA-ScR guidelines[46]

Patient and public involvement

No patient or public were involved in the protocol design.

Ethics and dissemination

Given that this review will analyse the data collected from existing literature, ethical approval is not required. Our

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findings will be disseminated through conference presentations and publication in a peer-reviewed journal. The findings will show the knowledge available for future research aimed at providing evidence for the effect of the COVID-19 pandemic on CM in Euro-CAN Cost countries.

Author affiliations
[1]School of Health, Social Work & Sport, University of Central Lancashire, Preston, UK
[2]Faculty of Education, Liverpool School of Tropical Medicine, Liverpool, UK
[3]Forensic Medicine Unit, University Hospital, Dijon, France
[4]Inserm, UMR 1231, Lipides Nutrition Cancer, CHU Dijon Bourgogn, Dijon, France
[5]Public Health Wales, NHS Trust, Cardiff, UK
[6]Department of Pediatrics and Adolescent Medicine, Medical University of Vienna, Vienna, Austria
[7]Faculty for Social Wellbeing, Department of Child and Family Studies, University of Malta, Msida, Malta
[8]Faculty of Human and Social Studies, Mykolas Romeris University, Vilnius, Lithuania
[9]Biostatistics and Bioinformatics (DIM), University Hospital, Dijon, France
[10]University Paris-Saclay, UVSQ, Inserm, CESP, 94807, Villejuif, France

Contributors SC, EM-T and NT-M led the conceptualisation, design and drafting of the protocol. EM-T, SC, CQ, ML and NT-M developed the search strategy and SC, CQ and ML conducted the preliminary searches; AN, CG, CS-S, JP, JS and AP provided supervisory overview and feedback on the methodology and the manuscript. All authors reviewed the final version of the protocol.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not required.

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ORCID iDs
Sinem Cankardas http://orcid.org/0000-0003-4140-2068
Catherine Quantin http://orcid.org/0000-0001-5134-9411

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