286 THE IMPACT OF ADVERSE CHILDHOOD EXPERIENCES ON HEALTH: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background A growing number of studies are seeking to examine the long-term impacts of adverse childhood experiences (ACEs; including child maltreatment and exposure to family violence and other household dysfunction in childhood) on health and wellbeing. Synthesis of such studies is needed to provide policymakers and practitioners with evidence to support investment in effective prevention and support strategies.

Methods We undertook a systematic literature search to identify studies that measured the cumulative impact of ACEs on health harming behaviours (HHBs) and health outcomes in adulthood. Included studies measured at least four ACEs (covering both child maltreatment and dysfunctional family environments) and permitted the measurement of odds ratios for outcome measurements by ACE count up to 4+ ACEs. Data were extracted from included studies for outcomes relating to: violence; substance use; sexual behaviour; weight and exercise; mental health (including suicide); and chronic diseases. Meta-analyses were undertaken for outcomes covered by at least four studies.

Results Meta-analyses found a cumulative impact of ACEs on most outcomes measured, with risks (pooled odds ratios) increasing with ACE counts. Outcomes with the greatest impacts included self-directed violence; violence perpetration; violence victimisation; and problem alcohol and drug use.

Conclusions The cumulative relationship between ACEs and a wide variety of health and social outcomes is being identified in populations across the globe. Developing multi-agency understanding of the links between ACEs and adult outcomes is imperative to support the implementation of effective action to prevent child maltreatment, promote family wellbeing and support those affected by childhood adversity to ultimately prevent violence and improve population health.

287 ACTION TO PROMOTE POPULATION SURVEYS OF CHILD MALTREATMENT IN EUROPEAN COUNTRIES

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Background The *European report on preventing child maltreatment* reported a prevalence of 9.6% for child sexual abuse, 22.9% for physical abuse, 29.1% for mental abuse. It is estimated that 90% of abuse and neglect goes undetected. Investing in Children: the European Child Maltreatment Prevention Action Plan 2015–2020 has an aspirational target to reduce child maltreatment by 20%. Progress towards this can only be demonstrated if reliable indicators are used for monitoring. However, only 60% of countries reported that they had conducted population surveys of child maltreatment in *European facts and the Global status report on violence prevention 2014*. This paper describes the actions being undertaken by the World Health Organisation to improve surveillance of child maltreatment.

Methods A comprehensive review of the literature was conducted to identify instruments used in population surveys of child maltreatment. A total of 34 instruments were identified, and were further shortlisted on the basis of published data on validity and reliability, licensing and copyright restrictions and user fees. On this basis 4 instruments were selected for psychometric testing. These were the IPSCAN Child Abuse Screening Tools (I-CAST), Juvenile Victimisation Questionnaire (JVQ), Parent-Child Conflict Tactics (PCCT) questionnaire and the Adverse Childhood Experiences (ACE) questionnaire.

Results Study data gathered in population surveys that have used the four instruments (I-CAST, JVQ, PCCT, ACE) have been requested from investigators. Psychometric testing is being applied to these datasets in order to propose one instrument for future studies and to develop a short form for inclusion in already planned surveys such as the Demographic and Health Surveys and the Multiple Indicator Cluster Surveys. These results and their implications will be discussed.

Conclusions A handbook is being developed to promote population surveys of child maltreatment in Member States. This will contain guidance on surveys, advice on instruments of choice for bespoke population surveys, and a short form instrument for proposed inclusion in already planned surveys. The handbook will be disseminated to health ministry focal points for violence prevention and other stakeholders. This tool is being developed as a means of assisting practitioners to conduct standardised population surveys of child maltreatment. The implications of this will be discussed in relation to European Child Maltreatment Prevention Action Plan.

288 INTER-RATER RELIABILITY OF CHILD DEATH REVIEW TEAM CLASSIFICATION OF CHILD MALTREATMENT

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Background The US Child Death Review (CDR) multi-disciplinary team consensus process uses tiered maltreatment definitions that allow for a degree of uncertainty. Individual heterogeneity is thought to normalise within the context of the CDR team resulting in reliable consensus determinations. This assumption has never been tested. The Alaska CDR tiered maltreatment designations were used to assess the polytomous maltreatment classification.

Methods We used a mixed-methods inter-rater reliability framework to test the reliability of abuse, neglect, and gross-negligence classifications through CDR consensus review. All children born in 2009–10 who died in Alaska through 2014 were eligible for inclusion (n = 116); after exclusions 101 cases were re-reviewed. Approximately half of the cases were included with normal monthly reviews, the rest were reviewed at an annual committee "blitz" review.

Results Total percent agreement was 64.7% with a weighted Kappa of 0.61 (95% CI: 0.51, 0.70). The percent agreement was 69.3% for abuse, 64.4% for neglect, and 60.4% for gross-negligence. Agreement was much less among infant deaths compared to child deaths (0.48 vs 0.77; p = 0.001) and unmarried mothers at birth (0.47 vs 0.74; p = 0.005). Incidence estimates per 1,000 live births are statistically equivalent between the initial and subsequent review for yes/yes probably any maltreatment and by maltreatment type.

Conclusions This is the first known reliability study of CDR team classification of tiered maltreatment death classification. Not unexpectedly, substantial agreement was observed for abuse