



The Association of Directors of Public Health

Science and Technology Committee Inquiry: Evidence-Based Early-Years Intervention

The Association of Directors of Public Health (ADPH) is the representative body for Directors of Public Health (DPH) in the UK. It seeks to improve and protect the health of the population through collating and presenting the views of DsPH; advising on public health policy and legislation at a local, regional, national and international level; facilitating a support network for DsPH; and providing opportunities for DsPH to develop professional practice.

The Association has a rich heritage, its origins dating back 160 years. It is a collaborative organisation working in partnership with others to maximise the voice for public health.

Introduction

Adverse Childhood Experiences (ACEs) are stressful experiences occurring during childhood that directly harm a child (e.g. sexual or physical abuse) or affect the environment in which they grow up (e.g. growing up in a house with domestic violence, parental separation or incarceration of a parent/guardian). Recent evidence demonstrates that chronic traumatic stress in early life can alter a child's brain development, and can fundamentally alter the development of their nervous, hormonal and immunological system.¹²

ACEs can set a child on a health-harming life course by increasing their risk of adopting health-harming behaviours such as smoking, problem drinking, poor diet, low levels of exercise and risky sexual behaviours.³ Such behaviours can lead to premature ill health through increasing risks of developing non-communicable diseases such as cancer, heart disease and diabetes.⁴ There is also a strong association between ACEs and premature mortality. A recent study reported that men and women who have had two or more childhood adversities are at increased risk of early death by 57% and 80% respectively.⁵ Furthermore, experiencing ACEs can have a long-term impact on mental health, increasing the risk of depression, anxiety and psychosis, and can negatively impact educational attainment, employment and involvement with the criminal justice system.^{6,7,8}

With such widespread impacts ACEs represent an important public health issue that needs to be addressed and prioritised in research and in policy.

1) The evidence-base for the link between adverse childhood experiences and long-term negative outcomes, and any gaps in that evidence base, as well as data on which specific adverse childhood experiences produce greatest adverse impact

The main research we are aware of is that conducted in Wales, Blackburn with Darwen, and through the Routine Enquiry of Adversity in Childhood programme (REACH). There is an increasing body of research evidencing a proportionate (dose relationship) between ACEs and negative long-term outcomes. There is also good evidence for the impact of ACEs. However, it would be beneficial to know more about which specific ACEs are more harmful, and those we should prioritise our efforts on preventing or mitigating.



Further research should therefore be conducted to determine the weighting of each ACE in terms of their adverse impact. There is also limited research examining the magnitude of the impact in those at the lower end of the spectrum, who have experienced a small number of ACEs (less than four).

Other potential gaps in the evidence also include research establishing causality; it is important to distinguish association from cause and effect. It is also important that we build a more comprehensive understanding of the factors that promote resilience in children with ACEs. This will help to inform interventions that focus on strengthening individual and community resilience. Further research on the intergenerational risk of ACE would also be beneficial.

2) The quality of the existing evidence-base for specific early-years interventions that aim to address adverse childhood experiences and minimise their effects in later life.

The evidence base for specific interventions is limited and the quality often varies. There is strong evidence for programmes such as the Family Nurse Partnership (FNP). There is also good evidence for interventions targeting specific ACEs, such as domestic abuse, and for programmes aimed at building resilience (e.g. through improving attachments). These have been evaluated by the Early Intervention Foundation (EIF).

Other programmes have yet to mature and better evaluation of these programmes is needed. There are few programmes supporting those exposed to inter-parental conflict or separation, and only one of these programmes is designed to include child outcome measures. There is also a lack of interventions demonstrating long-term impact.

The public health system would benefit from a closer look at the evidence around access and effective engagement in early years interventions. This could include more detailed evaluation in areas where REACH has been in place for some time. Identifying vulnerability in pregnancy is a particular area of challenge that would benefit from more research to identify effective models of delivery. It may also be beneficial to review the research that has been conducted in the US.⁹

Finally, it should be noted that even if we have evidenced based programmes e.g. The incredible years parenting programme, they are expensive, and therefore cannot be run, or can only be run for a few families. Therefore, the challenge is to have evidence based universal and targeted services that we can afford.

3) The extent to which local and national government policies for early-years intervention reflect that evidence-base, and the challenges involved in disseminating, accessing and using the latest evidence, as well as the opportunities for intervention suggested by the evidence but not currently being implemented;

Early intervention has been a confused public policy approach with varying definitions across different policy areas related to different approaches and different age groups. Early-years intervention has, to some extent, got lost in this at the national and local policy level. While local and national policies do recognise the impact of neglect and abuse, ACEs are not always recognised in their entirety.

The work of the EIF has been used locally to influence evidence based practice. This agenda requires a wide range of interventions to improve child poverty, prevention, detection and therapeutic support services across agencies. While, the EIF has been excellent in promoting the evidence base, there is



further work needed to ensure that learning from the pilot studies is appropriately disseminated and discussed. It remains unclear how much evidence there is of the effectiveness of different operational models.

On a national level, the first reference to ACE study findings in a government report was in the All Party Parliamentary Group's report 'Building Great Britons', but this has not had a mention in policy to date. Currently, there is no specific national commitment to tackling ACEs in England as there is in Wales.

When it comes to assessing and using the latest evidence, the main challenge is taking a whole systems approach to the ACE agenda and not treating it as an isolated project. Successful use of the latest evidence requires engagement from services across the life course, and potential changes to how needs are identified. While the evidence is there in terms of the 'dose response' relationship between ACE and poor physical health, mental health and social outcomes, the evidence on how to respond most effectively is less clear. Existing work and interventions that fit well with evidence from the ACE studies needs to also be acknowledged and joined up into the wider system.

Progressing this long-term preventative agenda with no additional funding will be a challenge. In Bradford, there is a Big Lottery funded project called 'Better Start Bradford', which helps fund the piloting of new projects and approaches. However, not all areas have this support locally. We need to make sure the evidence is oriented to value for money interventions that are affordable. The cost-benefit ratio should be clear in demonstrating the savings that will be realised because of the reduced need for services for older children and adults. We need to make the case nationally that this is essential to making savings in later life and enabling children to reach their potential.

Opportunities for intervention include improved access to mental health support for women with mild to moderate perinatal mental health problems. It is also important that the relationship between the mother and the developing baby is assessed during pregnancy, so that we can identify those in need of additional support.

4) The support and oversight of research into adverse childhood experiences and relevant interventions, including how research priorities are identified and funded, and the extent to which current interventions are reviewed and contribute to the evidence-base.

ACEs have been identified as an area in which baseline information is lacking. It is a relatively new area that influences the breadth of public health outcomes and, as such, should be a priority for research.

We need to ensure that research is oriented to approaches and interventions that are likely to be possible to implement, and have the highest impact in improving outcomes for children focused on pregnancy and early years.

5) Mechanisms for bringing together the collection, communication, application and review of evidence to ensure interventions are evidence-based.

Collecting evidence on local programmes in a systematic and rigorous way is very difficult. Mechanisms that could be beneficial include using EIF and regional PHE networks.

Association of Directors of Public Health

November 2017



¹ Brown DW, Anda RF, Tiemeier H, et al (2009). Adverse childhood experiences and the risk of premature mortality. *Am J Prev Med*, 37(5), 389–96.

² Centers for Disease Control and Prevention, [Adverse Childhood Experiences study](#).

³ Bellis MA, Hughes K, Leckenby N, Perkins C and Lowey H. (2014a). 'National Household Survey of adverse childhood experiences and their relationship with resilience to health-harming behaviours in England'. *BMC Medicine*, 12, 72.

⁴ Lozano R, Naghavi M, Foreman K et al. 2012. 'Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010'. *Lancet*, 380(9859), 2095-2128.

⁵ Kelly-Irving, M., Lepage, B., Dedieu, D., Bartley, M., Blane, D., Grosclaude, P., et al. (2013). Adverse childhood experiences and premature all-cause mortality. *European Journal of Epidemiology*, 28(9), 721–734.

⁶ Pirkola S, Isometsä E, Aro H, Kestilä L, Hämläinen J, Veijola J, et al. 2005. Childhood adversities as risk factors for adult mental disorders: Results from the health 2000 study. *Social Psychiatry and Psychiatric Epidemiology* 40, 769–77.

⁷ Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Marks JS. 2004. 'The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial outcomes, and fetal death.' *Pediatrics* 113(2), 320–327

⁸ Dregan A, Gulliford MC. 2012. 'Foster care, residential care and public care placement patterns are associated with adult life trajectories; population-based cohort study. *Social Psychiatry and Psychiatric Epidemiology* 47(9), 1517-1526

⁹ This paper outlines the type of approaches needed and those that should be considered in future UK-based research:

<https://www.nature.com/articles/pr2015197.pdf>