

Mental Health and Addictions Inquiry

Brainwave Submission Part Two (June 2018)

Introduction

Brainwave Trust Aotearoa reviews research from a variety of academic disciplines, including neuroscience, psychology, and psychiatry. Our purpose is to increase understanding of the factors that influence the development of children and young people, with the aim of improving their outcomes.

We have a particular focus on a child's early experiences, from conception to around 3 years of age, and on development during adolescence.

We have an overview of many factors that influence various outcomes, including that of mental health. In this paper we first set the scene with key themes from the research, and then highlight some of our learnings in a couple of key areas we believe are pertinent to attempts to improve mental health and well-being at the population level.

Key themes

Based on our reviews of the literature, there are several key themes that underpin all of the information we share.

- Early experiences (from conception) have a disproportionate impact on brain development, affecting the way people think, feel, and behave throughout life. Genes contribute to development, but whether or how genes are expressed is influenced by experiences, particularly those occurring during periods of rapid brain development.
- Children's experiences, in conjunction with their genes, can either help (protective factors) or hinder (risk factors) their healthy development. Risk and protective factors
- A key protective factor for children is the development of a secure attachment relationship with at least one parent during the early years. (Bowlby, 1969, cited by Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsley, & Roisman, 2010). The security of this attachment depends upon both the quantity and quality of a parent's interaction with their child. (Bowlby, n.d. cited by Schore, 2000). Children who do not have the opportunity to develop a secure attachment with their parents(s) are at increased risk for a range of mental illnesses (Weinfield, Sroufe, Egeland, & Carlson, 2008)
- One of the mechanisms by which early adversity (e.g. poverty, parental mental illness/substance abuse, maltreatment and family violence) can influence children's later outcomes, is through exposure to toxic stress. This is particularly likely when there are no adults able to provide the emotional support a child needs to buffer the effects of chronic stress.

Further details can be found in the attached articles:

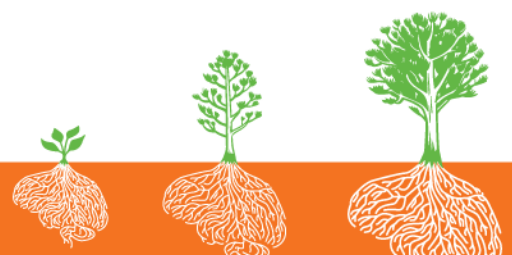
“Wiring the Brain”

“From Certainty to Complexity: Risk & Protective factors in child development”

“Why should we care: The abuse & neglect of children in New Zealand”

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Childhood Poverty

- Poverty is associated with increased risk of poorer outcomes in many areas, including that of mental health.
- Younger children appear to be particularly vulnerable to the effects of poverty (Boston & Chapple, 2014)
- Chronic stress resulting from poverty leads to frequent activation of the body's stress response systems, resulting in dysregulation physiologically and behaviourally (Blair et al., 2011).
- Physiological disruptions can last into adulthood, resulting in increased mental ill-health (Shonkoff et al., 2012).
- Several studies indicate that increasing income is associated with improved outcomes (Costello, Compton, Keeler, & Angold, 2003; Magnuson, 2013).

Further details can be found in the attached article **“The experience of poverty for infants and young children”**

Alcohol in Adolescence

Adolescence is a particularly vulnerable period in terms of mental health issues arising, compared with other life stages. One factor contributing to this is alcohol consumption.

- Drinking alcohol is associated with increased mental health concerns including depression, alcohol abuse or dependence in adulthood (Fergusson & Boden, 2011; Palmer et al., 2009)
- Drinking alcohol increases the risk of deliberate self-harm and suicide (Norstrom & Rossow, 2016)
- Those who have experienced early adversity, including sexual abuse, and witnessing family violence are at greater risk. They are more likely to begin drinking at a younger age and more likely to develop alcohol dependence (Newton-Howes & Boden, 2016; Oberleitner, Smith, Weinberger, Mazure, & McKee, 2015)
- The lowering of NZ's minimum purchase age in 1999 resulted in increases in the frequency and quantity of alcohol consumed by 16-17 year olds, as well as increases in alcohol related problems for those over 18 years (Gruenewald et al., 2015)
- The younger adolescents are when they start to drink, the greater the chance that they will have alcohol-related problems or other substance abuse in adulthood (Dawson, Goldstein, Chou, Ruan, & Grant, 2008; Windle et al., 2009)

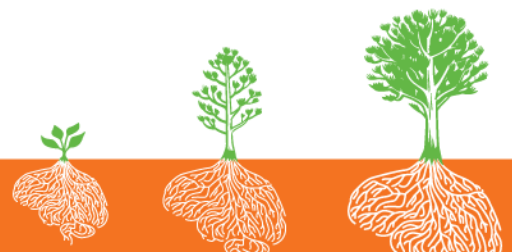
Further details can be found in the attached articles:

“Rethinking Teen Drinking”

“Understanding adolescents who have experienced early adversity”

Thank you for the opportunity to contribute to this important work. Brainwave is happy to be contacted for further information and wish you well with your Inquiry.

This review was collated on behalf of Brainwave Trust Aotearoa by Keryn O'Neill, Senior Researcher, Brainwave Trust.



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