

PROJECT EVIDENCE

PROJECT EVIDENCE for Prevention of Mental Disorders. The project coordinator is Dr Allan Mawdsley. The version can be amended by consent. If you wish to contribute to the project, please email admin@mhyfvc.org

[3] Indicated Programs are those for young people who will inevitably develop mental disorders unless there is preventive intervention.

[3 a] Biological factors

- i Brain injury
- ii Chronic illnesses
- iii Substance abuse
- iv Psychosexual and gender dysphoria

[3 a i] Brain injury

Brain injury, whether developmentally acquired such as Foetal Alcohol Syndrome, or subsequently acquired such as post-traumatic chronic brain syndrome, renders the person less capable than unimpaired agemates for coping with functional challenges and thereby warrants special assistance.

Foetal Alcohol Spectrum Disorder.

FASD is a complex neurodevelopmental disorder caused by prenatal alcohol exposure, resulting in lifelong learning and attentional difficulties. Because diagnostic criteria have only recently been agreed, there is no general population data available, but impressions are that it is more widespread than previously recognized. Professor Elizabeth Elliott gave the Howard Williams Oration at the recent Royal Australasian College of Physicians congress and reported on a survey she had undertaken in the aboriginal population of the Fitzroy River district in far north-western Australia.

45% of the women did not drink during pregnancy, but many of the 55% who did drink, drank at high risk levels. One in five of the children had FASD. The survey led to investigations of the psychosocial reasons for high alcohol use, as well as public health interventions for prevention and for special programs for affected children.

This example is that it highlights how research can lead to effective public health initiatives, once a problem has been identified and measured. Professor Elliott set up the Australian Paediatric Surveillance Unit (APSU) in 1993. It facilitates active surveillance of rare childhood diseases, complications of common diseases or adverse effects of treatment. It is through scientific study like this that preventive measures can be found.

Children and adolescents with acquired brain injury

Brain injury is a common cause of childhood disability. Research has reported cognitive difficulties following such injuries, in particular for those with more severe injury, with attention and memory often affected. In the attentional area, sustained attention (maintaining attention over time), selective attention (selecting relevant stimuli and ignoring irrelevant stimuli), shifting attention (changing attentional focus when required) and divided attention (dividing attention across two stimuli) may be compromised. Similarly, researchers have reported deficits in various memory components including immediate, short-term and long-term memory, multi-trial learning and manipulating information held in memory.

Research at Murdoch Children's Research Institute has found difficulties in these areas both acutely and up to ten years post-injury, suggesting that these difficulties persist over time and may not improve without intervention. This is problematic as attention and memory skills underpin a person's ability to interact and function in everyday life -

socially, educationally, and vocationally- and therefore are a key area to target in order to improve these skills and reduce their impact on everyday functioning. Despite this, there are limited intervention programs to assist children and adolescents post-brain injury with attention and memory difficulties. Intervention research in this area is still emerging. Several programs targeting executive functioning, memory and attention, and social-cognition difficulties are currently being adapted and trialled at the Royal Children's Hospital, but more research is needed.

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