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Review article

The ability of adults with an intellectual disability to recognise facial expressions of emotion in comparison with typically developing individuals: A systematic review

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ABSTRACT

This review systematically examined the literature on the ability of adults with an intellectual disability (ID) to recognise facial expressions of emotion. Studies were included that: recruited only adult participants with ID; that did not specifically recruit participants with co-morbid diagnoses of syndrome(s) related to ID; and that directly compared the performance of adults with ID with a group of people without ID. Nine papers met the eligibility criteria for review and were assessed against pre-defined quality rating criteria and the findings synthesised. The majority of included studies were assessed as being of acceptable overall methodological quality. All of the studies reported a relative impairment in emotion recognition for participants with ID on at least some of the tasks administered, with a large effect size being found for most of the significant results. The review suggests that adults with ID are relatively impaired in recognising facial expressions of emotion, when compared with either adults or children without ID. Methodological variation between studies limits the extent to which any interpretations can be made as to the cause of impaired emotion recognition in adults with ID.

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1. Introduction

The ability to identify and discriminate facial expressions of emotion in others has been studied in a wide range of clinical populations, including people with schizophrenia, depression, and Huntington's disease among other clinical groups (e.g. Henley et al., 2012; Kohler, Walker, Martin, Healey, & Moberg, 2010; Leppänen, 2006). As a group, people with an intellectual disability (ID) are widely reported to have impairments in interpersonal and emotional functioning. Research into emotion recognition more widely, has begun to uncover the developmental trajectory (e.g. Rodger, Vizioli, Ouyang, & Caldara, 2015) and neurobiological 'substrate' of facial emotion recognition (e.g. Mier et al., 2014). By contrast, research with individuals with ID has been relatively neglected.

It has been proposed that the ability to recognise and interpret facial expressions of emotion in others likely plays a fundamental role in the development of socio-emotional competence (McKenzie, Matheson, McKaskie, Hamilton, & Murray, 2001; Rojahn, Lederer, & Tassé, 1995). As such, there has been a recent interest in examining the emotion recognition capabilities of adults and children with ID, often with the aim of developing interventions that can promote positive and adaptive skills in this area (e.g. McKenzie, Matheson, McKaskie, Hamilton, & Murray, 2000). Much of the research in this area has focused on groups of people with diagnoses of specific syndromes associated with ID, most notably, people with Autism Spectrum Disorder [ASD] (e.g. Rump, Giovanelli, Minchew, & Strauss, 2009). However, other studies have also examined emotion recognition in more heterogeneous groups of people with ID of unknown aetiology (e.g. Gray, Fraser, & Leudar, 1983).

1.1. Intellectual disability: syndrome-specific (behavioural phenotype) studies

Behavioural phenotype research involves examining behavioural phenomena that are linked with specific genetic syndromes that are associated with ID, rather than research with people with ID of heterogeneous or unknown aetiology (Zaja & Rojahn, 2008). Such studies have primarily focused on people with ASD (e.g. Tager-Flusberg, 1999), although research has also been carried out with other populations, including people with Williams syndrome (Plesa-Skwerer, Faja, Schofield, Verbalis, & Tager-Flusberg, 2006), Fragile X syndrome (Wishart, Cebula, Willis, & Pitcairn, 2007) and Down syndrome (Kasari, Freeman, & Hughes, 2001).

A review of the research with people with ASD reported inconsistent findings between studies, with some studies indicating that facial emotion recognition is intact and others reporting that people with ASD are significantly impaired at recognising facial emotions (Harms, Martin, & Wallace, 2010).