Prevalence and risk factors of mental health problems in children and adolescents with intellectual disabilities

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Abstract
Learning disabilities (LD), also commonly referred to as intellectual disabilities (ID) is defined as a condition of arrested or incomplete development of the mind as per International Classification of Diseases, version 10 (ICD 10, World Health Organization, 1993). Such a condition is characterised by impairment of skills and functions. Like any other individual, children with LD are prone to a complete range of mental illnesses; in some instances more so than others.

This article aims to look at various studies and research conducted on identifying the prevalence and risk factors of mental illness and behavioural difficulties in children with ID.

Keywords
learning disabilities; intellectual disabilities; review, prevalence; risk factor; mental health

Studies reviewed
Birch et al. (1970) studied 104 children with ID between 8-10 years old and found 30% had clear psychiatric illnesses. Koller, Richardson, Katz and McLaren (1983) studied 192 children with ID and found that 33% showed aggression and conduct disorder, 29% had emotional disturbance, 27% showed antisocial behaviour and 12% had hyperkinesis. Hyperkinesis was more prevalent in children with lower Intelligence Quotients (IQs) and antisocial behaviour was more prevalent in those with higher IQs. In Gillberg et al.’s (1986) study, they found 54.3% of their group were identified with a psychiatric disorder; the prevalence rate for depression was 2.4%, emotional disorder 6.7%, conduct disorder (CD) 7.9%, and for autism was 4.9%.

Linna et al. (1999) measured psychiatric illnesses in about 6000 children in Finland with and without ID using three screening instruments: the Rutter Parent Questionnaire, the Rutter Teacher Questionnaire, and the Children’s Depression Inventory. Using the questionnaires they found higher rates of possible psychiatric disorder (50%) among individuals with ID than those without it (24.0%). Dekker and Koot (2003) studied 474 children in Holland and found 21.9% suffering from anxiety disorder, 4.4% from mood disorder and 25.1% from any disruptive disorder (attention deficit hyperactivity disorder (ADHD) 14.8%, oppositional defiant disorder (ODD) 13.9%). They found the frequency of depression was higher (11.0%) among children with ID compared to without ID (6.6%). However the difference was not statistically significant.

Stromme and Diseth (2000) reported on the prevalence of psychiatric disorder in children with ID in Norway. A total of 178 children with ID were identified from a sample of 30,037. ICD 10 criteria were used to diagnose psychiatric illnesses. They found that 37% of children with ID had a psychiatric diagnosis. The rates of psychiatric disorders were higher (42%) in children with severe ID compared to those with mild ID (33%). The ratio of boys to girls with psychiatric disorders was found to be 1.6. Rates of various disorders found were: hyperkineses 16%, autism spectrum disorder 4.5%, asperger’s syndrome 0.5%, conduct disorder 3%, anxiety/ phobias/obsessive compulsive disorder (OCD) 3% and tics 1%.

Emerson and Hatton (2007) report a combined secondary analysis of 1999 and 2004 ONS surveys. They identified 641 children and adolescents with ID. They assessed for presence of psychiatric disorder using the Development and Well-Being Assessment. They found that rates of mental health disorders were statistically higher in children and adolescents with ID (36%) compared to those without ID (8.0%). Point prevalence rates were conduct disorder 20.5%, emotional disorder 12.0%, any anxiety disorder 11.4%, hyperkinesis 8.3%, autism spectrum disorder 8.0%, depressive disorder 1.4%, tic disorder 0.8%, and eating disorder 0.2%.

Dekker and Koot (2003) examined 474 children with borderline to moderate ID between 8-10 years old.
the ages of 6-18 years in Netherlands. They found that 21.9% children met a diagnosis of anxiety disorder, 4.4% suffered from mood disorder and 25.1% suffered from disruptive disorder (including ADHD) according to the Diagnostic and Statistical Manual version IV (DSM IV, American Psychiatric Association, 2000).

Sleep difficulties have commonly been noted in children with ID. Some need less sleep than others and many have poor sleep patterns since infancy. Such sleep difficulties also have a knock on effect on parents and their relationships (Allington-Smith, 2006). Didden et al. (2002) reported on sleep disturbance in children with mild to profound ID in Netherlands. Out of the 286 children in their study population, 16.1% had a sleep problem. Severity of sleep problem correlated with severity of ID. Such children were also on medication, were younger and had higher frequency of cerebral palsy. Children with sleep problems also showed higher rates of aggression, oppositional behaviour and hyperactivity. Richdale et al. (2000) have also suggested that children with ID have higher frequency of sleep problems (57.7%) compared to their peers without ID (16%).

Reflection

Studies have identified a significant variation in the prevalence of psychiatric illnesses in children with ID. This has ranged from 30% (Birch et al., 1970) to 64% (Gillberg et al., 1986). This variation may be due to various factors such as different sample sizes and populations, researcher or clinician bias, diagnostic criterion, different methods of assessment for psychiatric illnesses and cultural differences.

The sample population in the studies reviewed has ranged from 8 to 18 years; some studies have reported on children from specialist schools and others from the general population. Some studies have used ICD10 criteria (World Health Organization, 1992) and some have used DSM IV or even created their own criteria for a diagnosis. Researchers have also used different methods of assessing psychiatric illnesses ranging from structured assessment tools to questionnaires. However, most studies have identified that boys with ID have higher prevalence of psychiatric illnesses than girls.

It can be hypothesised that children with lower IQ scores also have fewer problem solving skills and hence struggle to manage the day-to-day pressures of life. These can further lead to stress, anxiety and low mood. It can also be conceptualised that other factors such as biological, familial, and social difficulties can mediate or even precipitate the expression of such psychopathology.

Numerous studies have suggested various factors that have a role in development of psychiatric disorders in children with ID. These commonly are poverty or low socioeconomic status (Hatton & Emerson, 2004; Emerson & Hatton, 2007; Koskentausta et al., 2007; Emerson, Einfeld & Stancilffe, 2010), parental separation (Hatton & Emerson, 2004), being male (Hatton & Emerson, 2004), having a single parent (Emerson & Hatton, 2007, Koskentausta et al., 2007), poor communication skills (Allington-Smith, 2006; Koskentausta et al., 2007), family dysfunction and maternal/paternal distress (Emerson & Hatton, 2007; Wallander, Dekker & Koot, 2006).

Kiddle and Dagnan (2011) also explored the literature to identify developmental risk factors in adolescents with ID and depression. From various studies they identified that female gender, neuroticism, maternal depression, poor attachment formation, life events, peer relationships, and social stigma may play a role in development of depressive illness in adolescents with ID.

Longitudinal data

Chadwick et al. (2005) reported on behavioural difficulties in 111 children aged 4-11 years. Of these, 87 were followed up for 5 years and rates of behavioural difficulties were measured on these two occasions. There were no significant differences between rates of aggression, destructive behaviour, and self injurious behaviour. However rates of overactivity had significantly reduced after 5 years. In their study 25.6% and 32.9% of all cases were diagnosed with a psychiatric disorder at the initial assessment and at the time of follow-up respectively. This difference was not statistically significant. Autism spectrum disorder was the most common (24.4%) followed by ADHD (6.1%) and bipolar (2.4%) and anxiety disorder (2.4%) of all cases. Boys (47.8%) were found to have significantly higher rates of psychiatric illness than girls (13.9%).

The Australian Child to Adult Developmental study findings have been used by many researchers. Einfeld et al. (2006) attempted to examine the course of psychopathology in children and adolescents with ID. They conducted an epidemiological study of 578 children and adolescents from the sample and followed them up for 14 years with four waves of data collection. Their results revealed that
levels of behavioural and emotional disturbance decrease only slightly over time. Prevalence rates of psychiatric disorder reduced from 41% to 31% after a span of 14 years. The reduction in psychopathology was more noticeable in boys than girls and also in those with mild ID than those with severe ID. They also found that only 10% participants with psychopathology received interventions. Forster et al. (2011) followed up 107 people with severe ID and 22 people with profound ID for 12 years from this sample and found rates of behavioural and emotional difficulties were found to be lower for people with profound ID compared to those with severe ID; however this may be due to greater passivity noted in young people with profound ID. Moreover, a significant reduction in rates of such difficulties was noted across time span in people with severe ID but not those with profound ID. Other literature reviews have shown conflicting results on associations between psychopathology and degree of ID.

Often psychiatric illnesses in children with ID are chronic in nature and significantly impact functioning of the child and those around. Various disorders commonly seen in children and adolescents with ID are autism spectrum disorder or pervasive developmental disabilities, ADHD, emotional disorders, and behavioural disorder (often presenting as aggression or self-injurious behaviour), sleep and eating difficulties. Assessment of difficulties like schizophrenia and severe affective disorders can be especially difficult due to complexity of presentation and assessment of symptoms (Royal College of Psychiatrists, 2010).

Conclusions
Children with ID often present as a challenge to clinicians. Lack of clarity on prevalence rates, varied symptomatology in this population and limited diagnostic criteria add to the challenge. This article aims to inform clinicians that children with ID can present with full range of psychiatric illnesses and this population is three to four times more likely to suffer from a mental illness. Early assessment and identification is the key to timely intervention in children and adolescents with psychiatric illnesses and ID.

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References


