

## **Crisis Presentations of Children and Adolescents with Neurodevelopmental Disorders**

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### **Abstract**

#### ***Aim***

To inform the development of a care pathway for children and adolescents with neurodevelopmental disorders presenting to Children's Health Ireland (CHI) at Tallaght Emergency Department.

#### ***Methods***

A retrospective study of cases with a neurodevelopmental disorder diagnosis (Autism Spectrum Disorder and/or Mild to Profound Intellectual Disability) presenting to the hospital Child Psychiatry services over a six-year period (Jan 2014 – December 2019).

#### ***Results***

72 patients identified, Autism Spectrum Disorder diagnosis most common (N=67, 93%). Nearly half of cases presenting with risk concerns (N= 35, 49%), same day hospital discharge (N = 53, 74%) and inpatient admission (N=19, 29%).

#### ***Discussion***

Access to relevant community disability supports is significantly limited in Ireland with a resultant increase in carer stress and crisis presentations to the emergency department for psychosocial and disability related reasons.

## Introduction

The limited availability of disability specific supports in the community for children and adolescents with neurodevelopmental disorders and their families remains a maintaining factor to behaviours that challenge, carer stress and crisis presentations to emergency services. Children with neurodevelopmental disorders may struggle even further in an emergency department setting as there are often potential sensory distress triggers in an acute clinical environment. Hospital admission can be challenging given the finite environmental supports available for these children and adolescents in such inpatient settings.

## Methods

Cases with an Autism spectrum disorder and/or Mild – Profound Intellectual disability (ID) diagnosis presenting to the hospital Child Psychiatry services over a six-year period (Jan 2014 – December 2019) were examined.

## Results

Seventy - two (72) cases were identified and analysed.

<b>Age</b>	Range 6 - 16 years Mean 14 years
<b>Gender</b>	Males 47 (65%) Females 25 (35%)
<b>Diagnosis</b>	Autism (with or without ID) 67 (93%). Mild ID 4 (31%) Moderate ID 8 (62%) Severe ID 1 (7%)
<b>Presenting concern</b>	Self-harm/self- injurious behaviours 35 (49%) Aggression 17 (24%)
<b>Follow up</b>	Generic CAMHS 53(74%) Mental Health ID service 10 (14%) Residential care 2(3%) Psychiatric Inpatient Unit 1 (1%) GP 6 (8%)
<b>Length of Hospital stay</b>	Same day discharge 53 (74%) Inpatient admission 19 (26%)
<b>Repeat Presentation</b>	7 (8%)

An average of two to three day hospital admission. Majority of patients were admitted out of hours to facilitate next day assessment by child psychiatry services. One case presented to the emergency department nine times between July 2018 – March 2019 for carer stress and burn out.

## Discussion

A systematic literature review was undertaken to ascertain the prevalence of self-harm and suicidal behaviour in children and young people under 18 years old with a diagnosis of autism spectrum disorder (ASD) with or without an intellectual disability. There was variation in the reported prevalence rates, but results suggested that rates of both self-harm and suicidal behaviour may be elevated in ASD compared to the general population.<sup>1</sup>

Challenging risk behaviours among children and adolescents with Autism spectrum disorder may stem from diverse risk factors including environmental problems, comorbid acute psychiatric conditions or somatic illness such as epilepsy or acute pain<sup>2</sup>. A paediatric medical assessment to confirm or exclude an organic cause should be completed as indicated. Children with neurodevelopmental disorders are at an increased risk of developing mental illness and a comprehensive psychiatric assessment and management of identified mental health disorders will improve overall functioning and quality of life. Risk behaviours in this population may be triggered or maintained by environmental, social and sensory factors particularly in those children and adolescents functioning in the moderate to profound degree. In a study of seven risk factors associated with self - injurious behaviours in children and adolescents with autism spectrum disorder, abnormal sensory processing was the strongest single predictor of self-injury followed by sameness, impaired cognitive ability and social functioning<sup>3</sup>. Social skills deficits associated with an Autism spectrum disorder diagnosis may contribute to challenging behaviours particularly in adolescence. Parents of children with intellectual disability, especially where there is a diagnosis of comorbid autism spectrum disorder and challenging behaviour experience increased psychological distress and lower quality of life<sup>4</sup>.

Because children with neurodevelopmental disorders have complex needs, a holistic approach to diagnosis and intervention is highly warranted including in the assessment and treatment of behavioural and emotional disorders<sup>5</sup>. The management of behavioural challenges in this population requires unified multidisciplinary input involving relevant paediatric medical, child psychiatry and community disability services.

There were a number of repeat presentations to the emergency department for disability related reasons as children and adolescents remain on waitlists for intervention over several years. There were nine social admissions to the CHI at Tallaght paediatric inpatient unit in 2019 and some families refused hospital discharge until residential care, respite care or home support was provided. Access to disability supports is limited in Ireland with a consequent increase in carer stress and crisis presentation to the emergency services for respite and care supports. Hospital services commit to organising interagency meetings with disability service management and social work services to advocate for families and to enable hospital discharge.

A working group set-up in Children's Health Ireland at Tallaght is organising a care pathway for children and adolescents with neurodevelopmental disorders presenting to the emergency department. This pathway is informed by best practise guidelines and will seek collaboration from community disability services in management planning particularly for those children and their families presenting for psychosocial and disability related reasons.

**Declaration of Conflicts of Interest:**

I declare there are no conflicts of interests with this publication.

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