

used to capture two components of self-regulation – task attentiveness and emotional regulation. Children who had lived in poverty at 9 months were almost twice as likely to smoke at age 14. Twelve per cent of the difference in smoking between poverty groups was attributable to self-regulation, with none explained by verbal ability. The remaining difference was largely due to socio-demographic factors. Interventions to improve self-regulation targeted at children from families experiencing socioeconomic disadvantage at the end of primary school may hold promise to reduce inequalities in smoking. However, the detrimental impact of early life poverty on smoking in adolescence is chiefly driven by socio-demographic factors rather than later, individual characteristics such as self-regulation.

### P26 EXPLORING THE EXPERIENCE OF ADOLESCENTS WITH DOWN SYNDROME AND THEIR PARENTS

F McGrane\*, EF Roche. <sup>1</sup>Discipline of Paediatrics, Trinity College, Dublin, Dublin, Ireland; <sup>2</sup>Department of Paediatrics, Children's Health Ireland, Tallaght, Dublin, Ireland

10.1136/bmjpo-2019-RCPCP-SAHM.31

**Aims** Research regarding adolescents' with Down syndrome (DS) is limited. The majority of previous studies have been undertaken in either the UK or USA but none in Ireland. This study sought to address this gap by exploring the experience of growing up in Ireland for adolescents with Down syndrome and their aspirations for the future.

**Methods** The study was conducted using two questionnaires designed for administration to adolescents with Down syndrome and self-completion by parents. Areas explored in detail included health, service provision, education, living circumstances and future aspirations.

**Results** Forty seven adolescents with DS participated, aged 12-18 years (23 female) and 49 parents. The frequency of health comorbidities were assessed, 87% felt they had good health with eyes, hearing and heart. Further detail was obtained in key specific health areas. Daily medication was taken by 44%. A large proportion of parents (45%) and adolescents (98%) were unaware of the DS medical management guidelines. Parents were asked if their adolescent received satisfactory services across the domains. Parental reported satisfaction with care received in vision (92%), hearing (90%), medical care (86%) dietetics (55%) and speech and language therapy (39%). Dissatisfaction related to access rather than care received. There was limited use of respite services (30%). There was a negative perception of respite amongst some parents (17%) although those who availed of respite had largely positive experiences (92%). Transition of care from paediatric to adult services is an area of concern for the majority of parents (63% (n=31)) but not for adolescents. Most adolescents (79%) were unaware of transition to adult services and were unconcerned by it. Parents felt transition could be improved by additional information (61%), increased preparation (51%) and planning and discussion with adolescents (63%).

**Conclusion** The study showed overall satisfaction in relation to health and service provision but highlighted concerns regarding access to critical time sensitive services. Of particular concern there was poor awareness of the Medical management guidelines.

### P27 WHEN CHRONIC FATIGUE SYNDROME LEADS TO MUTISM

<sup>1,2</sup>S Moeda\*, <sup>1,3</sup>L Gamper, <sup>1</sup>A Gregorowski, <sup>1</sup>T Segal. <sup>1</sup>Children and Young People's Specialist Adolescent Services, University College Hospital, London, UK; <sup>2</sup>Department of Paediatrics, Hospital Beatriz Ângelo, Loures, Portugal; <sup>3</sup>Department of Paediatrics, University Children's Hospital, Zurich, Switzerland

10.1136/bmjpo-2019-RCPCP-SAHM.32

**Aims** Chronic Fatigue Syndrome (CFS) impacts negatively the quality of life, school attendance and social and family functioning. Cognitive dysfunction represents one of the most common and disabling symptoms. We report a severe case of CFS with extreme cognition loss.

**Methods** Case-report.

**Results** A previously healthy and athletic male adolescent developed weakness and fatigue following a viral illness at 10 years old. Mobility progressively deteriorated over two years, requiring wheelchair and admission. Investigations, including brain and spinal MRI, were unremarkable and CFS diagnosed. He started intensive physiotherapy but, while his physical activity improved, an abrupt extreme cognitive loss took place. He reported 'brain fog' and formal testing showed incredibly slow cognitive and sensory processing (e.g. score of 4/10 in processing incoming language). After little improvement, he restarted deteriorating and stopped attending school.

Aged 16, he was referred to our specialist CFS team, lying mainly in bed and unable to feed himself. He had diminished ability to speak and slow comprehensive processing. He struggled with significant anxiety, low mood, poor sleep and socially isolation. Further investigation, with EEG and neurological reassessment, was normal. He initiated a regular multi-disciplinary rehabilitation program, including patient and family support, pacing, graded exercise, sleep hygiene and pain relief. He indicated that he chose to use his energy on physical improvement at the expense of communication, hence, while his mobility slowly improved over one year, his cognitive ability notably deteriorated. He became gradually more non-verbal and uncommunicative, initially using signboards, but then refusing. Once his physical activity had markedly improved from being bedbound to walking, he restarted communicating by smiling and using thumbs up/down, slow speech with lags between words, then rapidly increasing to full sentences. After two years of therapy his improvement has been remarkable. Currently he walks, sleeps regularly, speaks fluently and engages with family and friends. He has home-tuition and has future goals.

**Conclusion** Establishing the accurate diagnosis and early symptom management are crucial for rehabilitation in CFS. Cognitive impairment may be significantly debilitating. Physical and cognitive recovery occurs at different stages. A multi-disciplinary patient-centred approach, working with families and local services, can be very effective.

### P28 IMPROVING TRANSITION FOR PATIENTS WITH DIABETES: A SERVICE IMPROVEMENT PROJECT

F Fuller\*, R Gadsby. Warwick Medical School, Warwick University, Warwick UK

10.1136/bmjpo-2019-RCPCP-SAHM.33

**Aims** To examine what adolescents with Type 1 diabetes want from a transition service and to evaluate if the implementation of a Specialist Transition Nurse improves patient engagement

and patient experience during transition. To implement a service development plan and consider how to evaluate the outcome.

**Methods** This was a service improvement project performed during Feb-July 2018 in a district general hospital. 53 patients with Type 1 diabetes aged 14-19 years were invited to take part. Patients were surveyed about their experiences and views on transition via two patient questionnaires (pre-intervention and 6 months post-implementation of the transition nurse). Qualitative data was also collected via semi-structured interviews.

**Results** The response rate for the pre and post-intervention questionnaires was 72% and 66% respectively. Overall, 73% of subjects reported one or more anxieties regarding transition to adult diabetes care. The top two reported anxieties were having to be more independent and the possibility of being admitted to an adult ward. The most common reasons for not attending clinic were that appointments 'clashed' with school or were booked too far in advance. The majority of respondents did not want to meet with the diabetes team at school or have 'virtual' appointments. Overall, the young people felt satisfied with the support provided by the transition nurse. Three key themes were identified from the structured interviews, flexibility of services, the need for more support and worry regarding taking on increased responsibility.

**Conclusion** A specialist transition nurse may lead to improved patient engagement and patient experience during transition. Patients want more flexibility around appointment times and more support throughout transition. Further research is required to look at specific outcome measures such as glycosylated haemoglobin (HbA1c) and hospital admission rates to determine whether the presence of a transition nurse translates into improved outcome measures in the longer term.

### P29 CAN EATING DISORDERS IN CHILDREN AND YOUNG PEOPLE PERMANENTLY AFFECT GROWTH AND PUBERTAL DEVELOPMENT?

<sup>1</sup>J Neale\*, <sup>1</sup>S Pais, <sup>2</sup>D Nicholls, <sup>1,3</sup>L Hudson. <sup>1</sup>Department of Child and Adolescent Mental Health, Great Ormond Street Hospital, London, UK; <sup>2</sup>The Centre for Psychiatry, Imperial College London, London, UK; <sup>3</sup>General and Adolescent Paediatric Unit, UCL Great Ormond Street Institute of Child Health, London, UK

10.1136/bmjpo-2019-RCPCPCH-SAHM.34

**Aims** We aimed to assess what evidence there is that eating disorders in children and young people affect growth and puberty and to what extent this is permanent. Whilst a number of studies on long term physical sequelae of eating disorders in children and young people exist, reports are conflicting, and this literature has never been systematically reviewed.

**Methods** We systematically reviewed the literature using Pubmed, Embase, PsychINFO and Web of Science to search for studies which looked at the effects of growth and development in participants <18 years with an eating disorder.

**Results** Of 10,404 abstracts, we retrieved 96 articles and included 28 studies. Both cross-sectional and longitudinal studies were identified. Most individual studies were small (included <100 participants). Although we found evidence that eating disorders in children and young people are

associated with impaired growth and delayed puberty compared to control groups, meta-analysis suggested no significant difference in stature. Impact on growth was found to be permanent in some studies. However, there was a larger body of evidence to suggest that catch-up growth is possible, with weight gain contributing to an acceleration of growth and final adult heights which were not significantly different from controls. In the majority of studies, pubertal delay was not seen at follow up.

**Conclusion** Children and young people with eating disorders are at risk of permanent effects on growth and reduced final height, though many will have the potential for catch up thus avoiding final stunting. Children and young people with eating disorders should have their growth and physical development regularly reviewed and monitored, and restoration of growth should be a goal in treatment to allow for catch up and prevent stunting. The potential effects on growth should be discussed with patients and their families.

### P30 USING LOW TECHNOLOGY HIGH FIDELTY SIMULATION TO ENHANCE CLINICIAN CONFIDENCE IN ADOLESCENT MENTAL HEALTH CARE

OA Sanwo\*, M Dubus. Department of Paediatrics, East Kent Hospitals University NHS FT, Kent, UK

10.1136/bmjpo-2019-RCPCPCH-SAHM.35

**Background** In the 2017 Mental Health of Children and Young People in England Report, 15.4% of children presented to a physical health specialist such as a paediatrician or GP regarding their mental health. An Australian survey found that over a 7-year period, childhood mental health presentations to Emergency Departments increased three times faster than physical health presentations (Hisock et al, 2018). However, GPs and paediatricians receive little formal training on the assessment and management of common mental health presentations. Despite the clinical and educational advantages of simulation, mental health simulation is less commonly utilised (Attoe et al, 2016). Consequently, little is known about the use of simulation to train paediatric and GP trainees in assessment and management of children and adolescents presenting with mental health concerns.

**Aim** To increase junior doctor confidence in managing common acute paediatric mental health presentations through the development of a paediatric mental health simulation programme.

**Method** Low-technology, high-fidelity simulation scenarios on self-harm and eating disorders were developed and incorporated into the weekly in-situ simulation programme for paediatric and GP junior doctors trust-wide over 6 months. Confidence in history-taking, psychosocial assessment and management of the adolescents was assessed by self-report before and after the simulation. Each simulation was subsequently debriefed, including discussions on risk assessment and management, signposting to resources and sharing learning points.

**Results** Following the simulations there was increased clinician-reported confidence in history taking (33.4% vs. 82.6%), psychosocial assessment (30.4% vs. 62.5%) and management (33.3% vs. 58.4%) of adolescents with self-harm. Thematic analysis of qualitative feedback highlighted the desire for further training as well as the benefits of simulation.