

Identification and Management of Children and Adolescents with Obesity Referred to a General Paediatric Outpatient Department

J. McGirr¹, G. O'Malley^{2,3}, Ó. Walsh^{1,4}

1. Department of General Paediatrics & Adolescent Medicine, Children's Health Ireland at Temple Street, Dublin, Ireland.
2. W82GO Child and Adolescent Weight Management Service, Children's Health Ireland at Temple Street, Dublin, Ireland.
3. School of Physiotherapy, Division of Population Health Sciences, Royal College of Surgeons in Ireland, Dublin, Ireland.
4. Department of General Paediatrics, Children's Health Ireland at Connolly, Dublin, Ireland.

Abstract

Aims

To identify all children and adolescents with overweight or obesity attending the outpatient department and audit our processes in their identification and management against NICE standards.

Methods

A retrospective chart review was performed. BMI charts were used to identify children and adolescents with overweight/obesity. The patient journey was audited to ascertain if overweight/obesity was identified by the clinician, whether this was communicated to the child or adolescent/their carer and whether intervention was offered.

Results

There were 669 scheduled appointments and 27.3%(n=127) of children ≥ 2 years and adolescents were identified with overweight/obesity. Children and adolescents referred for reasons not primarily related to obesity management were identified (90.6% (n=115)) and this group was analysed. Height and weight and/or BMI were communicated in 13.9% (n=16) of referral letters. A record of discussing growth was observed in 15.7% (n=18) of cases. Growth measurements were included in the post-clinic correspondence to the primary care physician in 56.8% (n=63) of letters.

Discussion

Further research is required to ascertain what barriers exist to the discussion of growth. Additional education of healthcare providers is necessary to develop standardised procedures around processes related to child and adolescent growth.

Introduction

In Ireland, 19% of primary school children and 26% of adolescents have either overweight or obesity^{1,2}. Current guidelines recommend that growth measurement be standard practice with each professional paediatric contact and that children and adolescents be offered tailored clinical intervention^{3,4}. This study aimed to identify all children and adolescents with overweight (BMI \geq 91st centile) or obesity (BMI \geq 98th centile) attending the outpatient department and to audit our processes in their identification and management against NICE Guideline CG189 and Quality Standard QS127^{5,6}. Our ultimate aim was to facilitate earlier detection and opportunities for early intervention, including collaboration with primary care services. With the introduction of electronic records providing automated generation of BMI centile charts, we are presented with a valuable new resource in the outpatient department to assist us in achieving this aim.

Methods

A retrospective electronic chart review was performed following institutional approval. BMI growth charts (UK BMI 2-20 years), generated for every patient \geq 2 years on arrival at clinic, were used to identify children and adolescents (2-18 years) with overweight/obesity attending the department for any reason in January and February 2020. Those referred primarily for assessment and management of obesity were excluded from further analysis. The patient journey from referral to post-clinic correspondence was audited using a standardised data form and NICE QS127 to ascertain if overweight/obesity was identified by the clinician, whether this was communicated to the child/their carer and whether intervention was offered for this important medical condition. Overweight, obesity, severe obesity and morbid obesity were defined as per UK BMI chart cut-offs.

Results

There were 669 scheduled appointments in the General Paediatric Outpatient Department during the study period, 87.7%(n=587) of which were attended. The large majority (98% (n=466)) of the 475 children and adolescents who attended the department had a recorded height and weight. Their BMI growth charts were reviewed and 27.3%(n=127) were identified with overweight or obesity. Children and adolescents referred for reasons not primarily related to the assessment and management of obesity were identified (90.6% (n=115)) and this group was further analysed.

Demographic profile

The sex distribution was 41.7%(n=48) female and 58.3%(n=67) male. Their average age was 8.8 years (SD=4.18 years). Twenty-five percent (n=29) of children and adolescents were from socio-economic areas described as disadvantaged/very disadvantaged while 20%(n=23) were from affluent/very affluent areas⁷.

Referral letter

Three quarters (75.7%(n=87)) of children and adolescents were referred by their GP and 10.4%(n=12) were referred from the Emergency Department. Height and weight and/or BMI were communicated in only 13.9%(n=16) of referral letters.

Growth measurement

UK BMI charts identified 47%(n=54) of children and adolescents with overweight, 40%(n=46) with obesity, 11.3%(n=13) with severe obesity and 1.7%(n=2) with morbid obesity⁸.

Clinical encounter

A record of discussing growth with patients/their carers was observed for 15.7%(n=18). This discussion was initiated with 1.9%(n=1/54) of children and adolescents identified with overweight, 23.9%(n=11/46) with obesity and 46.2%(n=6/13) with severe obesity. Permission to discuss growth was not documented in any cases.

Outcome of growth-related discussion (n=18)

One third (33.3%(n=6)) were provided with general lifestyle advice only. Four (22.2%) children/adolescents were referred to the national Tier 3 hospital-based weight management service, while a further 11.1%(n=2) were already attending/waiting to be seen. One adolescent (5.6%) >16 years did not meet referral criteria- they were provided with lifestyle advice and their GP was asked to refer to local services. The following additional referrals were made; 11.1%(n=2) referred to psychology, 5.6%(n=1) referred to hospital dietician, 5.6%(n=1) referred for Prader-Willi testing. One growth related discussion (5.6%) was in the context of medication with weight-gain as a side-effect and a decision was made to continue with it.

Post-clinic correspondence

In the post-clinic correspondence to the primary care physician (n=111), height and weight and/or BMI were communicated in 56.8%(n=63) of letters.

Discussion

The percentage of children attending our department with overweight/obesity is higher than those seen in the general populational (overweight 47% vs. 19%; obesity 40% vs 9% and severe obesity 11.3% vs. 1.8%)⁹. Whilst growth measurement occurred systematically and BMI centile charts were generated electronically, the findings were rarely shared with children and adolescents/their carer and only included in the post-clinic letter to the General Practitioner in approximately half of the cases. Further research is required to ascertain whether barriers exist to the discussion of growth with presenting families, how the decision to include or omit a growth discussion is documented and how communication with primary care might be enhanced.

Additional education of healthcare providers is necessary to develop standardised procedures around the processes for referral, clinical encounter and post-clinic actions related to child growth. With overweight/obesity affecting one fifth of primary school children and one quarter of adolescents in Ireland, it is essential that we initiate and document growth related discussions and that our assessment and management of these children and adolescents is aligned with best practice. This will help us meet the significant health needs of this vulnerable population.

Declaration of Conflicts of Interest:

The authors declare that there is no conflict of interest.

Corresponding Author:

Jessica McGirr

Department of General Paediatrics,
Children's Health Ireland at Temple Street,
Dublin 1, Ireland.

E-Mail: jessicamcgirr6@gmail.com

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