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CARDIOMETABOLIC FITNESS IN 5-YEAR-OLD CHILDREN, MEASURED USING A SIMPLE STEP TEST, IS ASSOCIATED WITH BODY FAT LEVELS: FINDINGS FROM THE ROLO KIDS STUDY

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Background Fitness in early and late childhood has declined worldwide alongside the high levels of childhood obesity. Cardiovascular fitness is vital for good health and low levels have been linked with metabolic risk factors and adverse body composition in adults. However, research on fitness is limited in young children, particularly how this relates to body composition, potentially due to the lack of simple methods of estimating fitness in 5-year-old children.

Methods 272 5-year-old children from the ROLO Kids study were included in this analysis. Using a 25cm step, the children stepped up and down as many times as possible for 3 minutes. A pedometer was worn to record number of steps. Participants had their heart rate measured before the test, after the 3 minutes, and monitored until heart rate returned to resting. Heart rate recovery time was calculated. Child anthropometry including height, weight, circumferences, and skinfold thickness were collected. T-tests and linear regression models were used.

Results Males had a significantly quicker heart rate recovery after completing the step test than females (113 seconds *vs.* 129 seconds, $P<0.05$). Participants with a slower recovery time (>105 seconds) had significantly higher sum of skinfolds compared to participants with a quicker recovery time ($P<0.03$). Heart rate recovery remained positively associated with skinfold measurements after controlling for confounders, including child sex, age, step number, and effort rating.

Conclusion Child adiposity was positively associated with heart rate recovery, a proxy for cardiovascular fitness, using the ROLO Kids Step Test. This novel test could be used as a measure of fitness in 5-year-old children, suitable in both research and clinical settings. Replication and validation of these findings is required to provide a valid method of tracking children's fitness and health.

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PUBLICATION RATE OF ABSTRACTS PRESENTED AT THE IRISH PAEDIATRIC ASSOCIATION CONFERENCE OVER A 5-YEAR PERIOD

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Introduction The success of a medical conference is dependent, in part, on the quality of research presented therein. Publication rates of scientific papers presented at a conference are a potentially useful surrogate for quality. Based on published data, the mean publication rate for paediatric conferences is 39%. To date, no analysis of this nature has been conducted on the Irish Paediatric Association's (IPA) annual conference.

Aim This study aims to identify the rates at which abstracts presented at the IPA meeting subsequently go on for

publication and what factors were associated with higher rates of publication.

Methods As ~95% of publications occur within 5 years of conference presentation, abstracts from the 2008–2012 IPA conferences were selected for analysis. A PubMed/Medline search was conducted using the author's names and if required, abstract keywords. For comparability with previous studies, articles were deemed published if they were full journal articles, contained at least one similar author and reported similar outcomes. Statistical analysis, including identification of factors associated with publication success was performed using Microsoft Excel 2010.

Results Over the five-year period 584 IPA abstracts were presented and were included in our study. The mean rate of publication was 19.7% - well below the rate for other paediatric conferences. Articles were published in forty-five different journals with one-quarter were published in the Irish Medical Journal. On the basis of univariable analysis the rate of abstract publication was significantly higher for oral/podium presentations (23% *vs.* 15%, $p<0.05$), university-associated abstracts (31% *vs.* 16%, $p<0.001$) and interventional studies (52% *vs.* 18%, $p<0.001$). There was also a significantly lower rate of publication for abstracts on case reports, case series and audits compared to all other study designs (16% *vs.* 24%, $p<0.05$). Non-significant increases in publication rate were also observed for sample size greater than the average (31% *vs.* 20% $p=0.061$) and positive study outcome (26% *vs.* 19%, $p=0.157$). On multivariable analysis only university-association and interventional studies remained significantly associated with publication.

Conclusion The rate of publication of IPA abstracts was significantly below the mean for similar conferences globally. This may reflect less stringent abstract acceptance criteria but could also indicate a lack of time or support for trainees to progress their work to publication. Further exploration of these factors is planned once preliminary data collection is complete so acceptance criteria can be reviewed and trainees better supported to publish their work.

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THE CARIES EXPERIENCE OF CHILDREN ATTENDING THE NATIONAL PAEDIATRIC CRANIOFACIAL CENTRE (NPCC), DUBLIN, IRELAND

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Introduction Children with craniofacial conditions would be considered to be at a higher risk of and from dental caries. Despite this high risk, there is limited data in the literature reporting on the dental caries experience of these children.

For the last number of years children attending the National Paediatric Craniofacial Centre (NPCC) have been enrolled in the tertiary paediatric dental services by their first birthday. They are also referred to primary services for ongoing prevention of dental disease.

The objective of this review was to determine the caries experience of a cohort of children attending the NPCC over an 18-month timeframe.

Methods The World Health Organisation examination criteria were used with the inclusion of visual caries. Dental caries was recorded using the dmft (decayed, missing and filled