Letter to the Editor

Clinical relevance and validity of obesity risk prediction tools

Madam

We read with interest a useful review you recently published by Canfell et al. which explored the clinical relevance and validity of obesity risk prediction tools[1]. We thought it might be helpful to point out that the article missed a couple of key papers by our team that may be of interest. We are pleased that the authors identified work conducted by our team (Weng et al. (2013)[2]), which used the Millennium Cohort Study to develop and validate the Infant Risk of Obesity Checklist (IROC). In their review, Canfell et al. identify only two articles that performed an external validation on a different cohort. Our other paper published in June 2016, which was omitted from Canfell et al.[1], describes the external validation of IROC with a different cohort, the Avon Longitudinal Study of Parents and Children (ALSPAC), and time frame[3]. We recalibrated the IROC algorithm to reflect the ALSPAC characteristics which improved the discrimination (*c*-statistic of the area under the receiver-operating characteristic curve) by 3% for the International Obesity Task Force and 2% for the UK 1990 overweight criteria. We also undertook risk threshold analysis to provide support for clinical decision making.

In their paper, Canfell et al. suggest that there has been little widespread clinical uptake of overweight/obesity risk assessment tools within the health sector[1]. In September 2017 we published the findings of a feasibility study of a digital intervention, called Proactive Assessment of Obesity Risk during Infancy (ProAsk), which included the IROC algorithm and evidence-based strategies for childhood overweight prevention[4].

We agree with the conclusions outlined by Canfell et al. in which they call for studies to improve the predictive strength of the currently available algorithms together with clinical implementation of such tools[1]. Because of the sensitivity of identifying infant overweight and obesity risk, the majority of research-led interventions have been delivered universally sometimes within areas of high deprivation. We are keen that identification of parents of infants in greatest need is undertaken in order to prioritise resources.

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