

## Correspondence

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## Prevalence: are two-fifths of young people really 'abnormal'?

We read with interest Deighton and colleagues' paper about mental health problems among 11- to 14-year-olds.<sup>1</sup> They stress the importance of understanding prevalence and report 'findings that indicate the scale of mental health problems in England is much higher than previous estimates'. The previous estimates referred to are from England's Mental Health of Children and Young People (MHCYP) survey, which recently identified 13.6% of 11- to 15-year-olds as meeting the diagnostic criteria for a mental disorder.<sup>2</sup> They do not explain why their estimate of 42.5% is more reliable.

Their survey was conducted in six of the most deprived local authorities in the country: Blackpool, Cornwall, Hull, Kent, Newham and Wolverhampton. The MHCYP survey was nationally representative. As expected, given the deprived areas sampled, children eligible for free school meals were overrepresented, as well as White pupils. These characteristics are associated with higher rates of disorder,<sup>3</sup> but are not addressed with the use of survey weights. The MHCYP survey used a complex weighting strategy to correct for selection and non-response biases to ensure that the sample was representative.

Only the child self-report Strengths and Difficulties Questionnaire (SDQ) was used. The single-informant SDQ is a less reliable predictor of child mental disorder than the multi-informant SDQ, and the child self-report measure is less reliable than the parent or teacher measures.<sup>4</sup> In contrast, the MHCYP used a multi-informant standardised diagnostic assessment; the Development and Wellbeing Assessment. This combines highly structured and semi-structured questions, as well as clinical rating to triangulate child, parent and teacher reports and assign ICD-10 diagnoses.<sup>5</sup>

Prevalence estimates rely on the thresholds applied. To identify pupils with problems in each of the four domains examined the authors have used a no longer recommended 'three band' approach and,<sup>6</sup> crucially, do not appear to have taken account of impact.

Similarly, the overall threshold was derived by a score above the subscale cut-point on four of six possible subscales. This unusual approach was not explained, although we are sympathetic to the challenges of describing complex methodology within a short report. The standard approach would be to apply a threshold to the SDQ total difficulties score.<sup>4</sup>

We disagree, therefore that the authors' findings indicate that the MHCYP's rates are underestimates. Poor mental health can be conceptualised in a number of ways, and clarity about definitions, especially when making comparisons, is essential.

1 Deighton J, Lereya ST, Casey P, Patalay P, Humphrey N, Wolpert M. Prevalence of mental health problems in schools: poverty and other risk factors among 28 000 adolescents in England. *Br J Psychiatry* 2019; **215**: 565–7.

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[publications/statistical/mental-health-of-children-and-young-people-in-england-2017/2017](https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england-2017/2017)).

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## Authors' reply

We thank Professor Ford and Ms McManus for raising some important questions and welcome extending the debate in this important area. We understand the questions raised by the author to be fourfold and respond to each in turn below.

First, whether estimates presented in our paper<sup>1</sup> are more reliable than the recent England's Mental Health of Children and Young People (MHCYP) study.<sup>2</sup> We would like to confirm that we did not claim our data are more reliable than the MHCYP data. Our paper draws on data collected as part of a large-scale, school-based study to explore the extent of mental health problems reported by children and young people and the factors that increase the odds of experiencing these problems. As we noted in the introduction to our paper, the national MHCYP study only reported after our paper was accepted for publication; however, we were able to add reference to the MHCYP survey at the point of revisions as we wanted to alert readers to this important work. We agree that both mental health and mental ill health 'can be conceptualised in a number of ways'. We would also want to note that there is much debate about how best to determine levels of need and much evidence of lack of precision even when using clinically experienced assessors.<sup>3,4</sup> No cut-offs are perfect for estimating prevalences of children with mental health difficulties. In our paper we focus on raised levels of child-reported mental health difficulties in this school-based sample as likely indicators of level of difficulties that might be distressing for the child and potentially disruptive for the class and thus may be important in relation to potential early intervention.<sup>5,6</sup>

Second, whether the more deprived sample contributes to higher levels of reported mental health difficulties. We highlight in the paper the slightly more deprived survey population relative to national figures and also explicitly note that deprivation is associated with mental health problems, so we feel comfortable that we have been very transparent about this potential limitation.

Third, whether the single-informant Strengths and Difficulties Questionnaire (SDQ) is a less reliable predictor of child mental disorder than the multi-informant SDQ. Relying only on self-report always has its limitations and this has been acknowledged in the paper. However, there is also much evidence of disagreement between different perspectives so it is not clear how best to determine whose view takes precedence. We think considering the child's perspective is a worthwhile endeavour.<sup>7,8</sup>

Four, rationale around three-band versus four-band categorisation and use of subscale scores rather than total difficulties. The

three-band cut-offs used in the paper are well used in the existing literature and as such are comparable with previous published research.<sup>9</sup> Although we are aware of the newer four-band scoring, we are not aware of any published evidence of how these newer four-band thresholds were established or their advantages or disadvantages relative to the older bandings. In the light of the queries raised we have reanalysed our findings with these new categories and also with total difficulties and impact scores (see details in list below). We note that the 'very high' threshold for the four-band categorisation has remained equivalent with the 'abnormal' threshold for the three-band version for emotional difficulties, so proportions remain the same. The thresholds for both conduct problems and inattention/hyperactivity problems have been increased by one point yielding reductions of around 10% in those scoring in the highest range. The thresholds for peer problems have been reduced by one point in the four-band categorisation leading to a larger proportion of children scoring in the highest range. Using the four-band rather than three-band categorisation for the three problem scales we initially focused on (emotional problems, conduct problems and hyperactivity/inattention) still yield very high levels of children scoring above the highest threshold in any one of these problem (32.5%).

Comparison of three-band versus four-band thresholds are as follows.

- (a) Emotional problems: three-band (abnormal): 518 (18.4%); four-band (high): 7847 (27.9%); four-band (very high): 5181 (18.4%).
- (b) Conduct problems: three-band (abnormal): 5197 (18.5%); four-band (high): 5197 (18.5%); four-band (very high): 2664 (9.5%).
- (c) Inattention/hyperactivity: three-band (abnormal): 7135 (25.3%); four-band (high): 7135 (25.3%); four-band (very high): 4451 (15.8%).
- (d) Peer problems: three-band (abnormal): 2058 (7.3%); four-band (high): 7066 (25.1%); four-band (very high): 4093 (14.5%).
- (e) Total difficulties: three-band (abnormal): 5407 (19.3%); four-band (high): 7789 (27.7%); four-band (very high): 5407 (19.3%).
- (f) Impact: three-band (abnormal): 6885 (24.8%); four-band (high): 6885 (24.8%); four-band (very high): 4495 (16.2%).
- (g) Any mental health problem (emotional, behavioural or inattention/hyperactivity): three-band (abnormal): 11 976 (42.5%); four-band (high): 13 563 (48.2%); four-band (very high): 9151 (32.5%)

In terms of the question about why we looked at subscales rather than total difficulties – this was because we were interested in understanding the type of problems young people experienced. This is an approach that has been used before and now forms the basis of

analysis being considered in relation to child mental health outcomes for children seen across the National Health Service.<sup>10,11</sup>

We hope this helps clarify the points raised. We would want to thank Professor Ford and Ms McManus again for engaging with us on this important topic in our shared aim to understand levels of mental health need in children and young people in order to determine how best to meet this need.

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