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Magnetic resonance imaging in first-episode psychosis

The paper by Falkenberg and colleagues[1] on the clinical use of magnetic resonance imaging (MRI) in first-episode psychosis (FEP) is of great interest, but several critical notes need to be made.

First, a stated aim of this study was to investigate whether MRI assessment of people with FEP is feasible in the majority of patients. We agree with the authors that this is indeed the case for the large majority of patients, despite the possibility of some selection bias; however, we wonder why the authors did not provide any further information on why the scanning of 2.5% of patients with FEP in the clinical sample could not be completed. What were the reasons? This information would have been very informative, especially from a clinical perspective.

Second, we do not understand why the authors did not control for gender in the clinical sample, particularly because they use previously collected data. It was shown long ago that gender[2] is an important factor in MRI research in schizophrenia. It has, for instance, been suggested that the significant differences between male and female patients with schizophrenia arise from the interplay of sex hormones, neurodevelopmental and psychosocial sex differences,[3] and it is therefore strange that the authors did not explain why they decided not to control for it.

Third, we found the second hypothesis very unspecific. What do the authors mean exactly by 'a substantial proportion'? It is unclear what percentage of the patients had to show radiological abnormalities in order to prove or reject the hypothesis.

Finally, on what criteria do the authors draw the conclusion that an MRI scan is indicated in the clinical assessment of all patients presenting with FEP? In particular, if one takes into account the cost–benefit analysis that they mention in the introductory section of their paper, this conclusion seems unfounded. The point here is that if one does not apply strict cost–benefit criteria, one can also make the claim for preventive scanning of everyone in society to detect early tumours, encephalitis, and so on.

1 Falkenberg I, Benetti S, Raffin M, Wuyts P, Pettersson-Yeo W, Dazzan P, et al. Clinical utility of magnetic resonance imaging in first-episode psychosis. *Br J Psychiatry* 2017; **211**: 231–7.

2 Nasrallah HA, Schwarzkopf SB, Olson SC, Coffman JA. Gender differences in schizophrenia on MRI brain scans. *Schizophr Bull* 1990; **16**: 205–10.

3 Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. *Acta Psychiatr Scand Suppl* 2000; **401**: 3–38.

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Authors' reply: We welcome the interest in our study on the prevalence of MRI abnormalities in patients with FEP. MRI scanning could not be completed in 2.5% of patients ($n = 6$) in the clinical sample. According to the radiological reports, this was due to patient intolerance. As no further details were given, we are unable to provide any information regarding the reasons for this.

Although we agree with Van den Noort and colleagues that gender effects play an important role in MRI studies in patients with schizophrenia, we did not control for gender effects because our study did not reveal any gender differences in terms of the prevalence of radiological abnormalities, as we stated in the Results section.

As previous estimates of the prevalence of radiological abnormalities in patients with psychosis have mainly been based on studies with smaller sample sizes, using heterogeneous samples of patients recruited to research studies and heterogeneous imaging methods, the true prevalence of such abnormalities in patients with FEP is unclear. Because we adopted an exploratory approach to estimate the prevalence of radiological abnormalities, no specific rate was hypothesised. The implications of our findings for making decisions, particularly regarding the routine use of MRI in FEP, thus depend on the perspectives adopted.

As our study was not designed to examine cost–benefit analyses, we cannot draw any definite conclusions about health economic considerations. However, failing to detect radiological abnormalities at an early stage can result in the patient not receiving the appropriate medical treatment for an underlying 'organic' condition, which may have serious consequences for that individual. We therefore think that it is prudent to scan patients with FEP in order to avoid this scenario, even if it is relatively uncommon.

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Hallucinations in BPD: more prevalent than community sample study suggests?

The conclusion reached by Kelleher & DeVylder[1] that hallucinations are no more prevalent in borderline personality disorder (BPD) than in depression and anxiety was unexpected and raises some interesting points. The prevalence of BPD in the community population they studied is low (0.4%) compared with previously published prevalence rates of between 0.7 and 2.7%.[2] This suggests that the Adult Psychiatric Morbidity Survey may lack sensitivity for detecting BPD in a community sample (57% response rate; possible self-selection bias). Similarly, the correlation between hallucinations and BPD in this study is considerably lower than clinical experience and research estimates would suggest. Schroeder