et al[3] reported rates between 20 and 50% in a review of findings on the prevalence and clinical management of psychotic symptoms, particularly hallucinations, in BPD. The disparity between these findings may be explained by the use of community versus clinical sampling, since community sampling may underreport severe presentations of BPD, which in turn are more likely to be accompanied by hallucinations.[4]

Well-conducted studies have demonstrated that hallucinations in BPD are highly correlated with the experience of childhood trauma, including childhood sexual abuse.[3] Childhood trauma is not as prevalent in patients with depression and anxiety. Although a similar prevalence of hallucinations in BPD, depression and anxiety, as reported by Kelleher & DeVylder, could suggest that previous prevalence estimates in BPD may be compounded by these co-occurring disorders,[5] we regard this as unlikely.

The probable association between hallucinations and severity of BPD presentation[4] suggests that hallucinations might respond well to effective treatment. This is our clinical experience, supported by a small pilot study we conducted involving 38 women diagnosed with BPD (aged 18–56 years at intake). The presence and nature of hallucinations was recorded using the Psychotic Symptom Rating Scale (PSYRATS). At intake, 34% of participants reported hallucinations (PSYRATS score: 15.30 s.d. = 17.22); 50% also reported a history of childhood sexual abuse (Childhood Trauma Questionnaire). After 12 months of individual psychotherapy using a common factors approach, the PSYRATS score was 7.00 (s.d. = 13.93; $P = 0.04$). This correlated with a reduction in the number of BPD symptoms assessed using the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II: intake: 7.00 (s.d. = 1.63); 12 months: 4.60 (s.d. = 1.84); $P = 0.01$). These preliminary data suggest, in agreement with previous findings,[4] that hallucinations may positively correlate with BPD severity. Our findings also suggest that treating BPD using appropriate psychotherapy reduces the experience of hallucinations.

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Author's reply: Thank you to Beatson and colleagues for their interest in our work.[1] There are, of course, as they suggest, differences between mental disorders in the population and mental disorders that we see in the clinic – this is a result of selection bias in clinical samples, termed Berkson's bias, which we suggested in our paper might be a reason for differences between population data and clinic data.

Research suggests that 20–50% of clinic samples with borderline personality disorder (BPD) report hallucinations.[2] In our population sample, the prevalence of hallucinations in individuals with BPD was 14%. When you consider recent research findings on psychotic symptoms, the difference in prevalence of hallucinations in community *v.* clinical samples is not surprising: we and others have shown that the presence of psychotic (or attenuated psychotic) symptoms (specifically, hallucinations and delusional beliefs) in non-psychotic disorders is associated with more severe psychopathology on a number of counts,[3,4] including number of comorbid disorders, cognitive impairment, functional impairment, suicidality and poor treatment response. That is, the prevalence of hallucinations increases as the severity of psychopathology increases, as do (crucially) the odds of presenting to clinical services. This provides an optimal environment for breeding Berkson's bias.

The above findings, it should be noted, are in no way unique to BPD. Clinical studies that systematically assess for hallucinations find much higher prevalences than do community studies. Looking at a clinic sample of people with major depressive disorder, for example, Chambers *et al* found that 40% had psychotic symptoms when systematically assessed for them.[5] Similarly, we found that 46% of a clinic sample of adolescents (with a wide variety of mental disorders) had one or more psychotic symptom when systematically assessed (the most common was hallucinations).[3]

An interesting point is that clinical anecdote would suggest that hallucinations are more common in BPD than in many other mental disorders. Bearing in mind that our study was, to our knowledge, the first to systematically compare across BPD and other mental disorders, and is awaiting replication studies, we must question why this clinical belief is common. It could be that individuals with BPD are more likely to spontaneously report experiences of hallucinations in clinic (without being specifically asked about them) than is the case, for example, for individuals with anxiety disorders. However, the results of this study demonstrate that individuals with anxiety disorders do, in fact, report hallucinations as frequently as people with BPD when they are specifically asked about them – the key part of that sentence being 'when they are specifically asked about them'; perhaps we are not as systematic as we could be in asking all patients about psychotic phenomena. It is, however, important to point out that our findings relate to community samples; it may, in fact, be the case that hallucinations are more prevalent in clinical samples with BPD than in clinical samples with other disorders. We plan to investigate this and look forward to sharing the results.

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