

EDITORIALS

Can we identify and treat “schizophrenia light” to prevent true psychotic illness?

Better to focus on treating psychosis in non-psychotic disorders

Jim van Os *professor of psychiatric epidemiology*¹, Robin M Murray *professor of psychiatric research*²

¹Maastricht University Medical Centre, South Limburg Mental Health Research and Teaching Network, EURON, Maastricht, Netherlands ; ²King's Health Partners, Department of Psychosis Studies, Institute of Psychiatry, King's College London, London, UK

In a linked meta-analysis, Stafford and colleagues (doi:10.1136/bmj.f185) provide evidence that cognitive behavioural therapy (CBT) may show some modest benefits in preventing transition to psychosis at 12 months' follow-up in patients at high risk.¹ In doing so, they summarise a huge amount of work on interventions to prevent psychosis. However, this approach assumes that a discrete state of high risk for psychosis exists, an assumption that has increasingly been challenged.

Traditionally, phenomena such as delusions and hallucinations (hereafter, psychosis) were thought to be diagnostic indicators of psychotic disorders such as schizophrenia. However, psychotic symptoms are more common than was previously realised. They are present—at various degrees of severity—in about 5% of the general population who are not seeking help; in about 25% of people with (non-psychotic) common mental disorders, such as anxiety and depression; and in around 80% of patients with psychotic disorders.²

Low grade psychotic phenomena in those not seeking help are associated with an increased relative risk—albeit low absolute risk—of later psychotic disorder, and, more surprisingly, also of non-psychotic mental disorder.³ Furthermore, low grade psychotic symptoms in people with common mental disorders predict a poorer prognosis, similar to the more severe course traditionally associated with psychotic illness.^{4 5} Therefore, the boundaries between normal mentation, common mental disorder, and schizophrenia become blurred if positive psychotic phenomena are used as a distinguisher.

It is important to deconstruct the concepts of “ultra high risk” and “transition” in relation to psychotic illness. Much of the literature that promotes the idea of a state of ultra high risk of progression to psychotic illness reduces this complex psychopathological reality to an unrealistically clear picture. The implicit assumption is that this state is a “schizophrenia light” condition that is a reliable and valid binary concept, and that treatment of this condition can prevent the equally valid simple concept of transition to frank psychosis. Frank psychosis is defined according to an (arbitrary) cut off of psychosis severity or a (similarly arbitrary) diagnostic concept of

“schizophrenia spectrum.” However, reality may not be quite so black and white. Although the murky reality that lies beneath the apparently strong ultra high risk paradigm may not negate the main message of Stafford and colleagues' analysis, the study's findings should be considered within a broader context. Several practice and policy considerations are relevant.⁶

Firstly, definitions of transition, which are usually arbitrarily applied, vary between centres. These definitions basically express the shift from a little or moderate expression of psychosis to severe expression of psychosis. However, the expression of psychosis naturally fluctuates in intensity, severity, duration, and functional impact within individuals over time. Temporary amelioration of psychosis in people with existing psychotic disorder at the time of the baseline assessment may cause them to be wrongly assigned to the ultra high risk group rather than the psychotic group. It is therefore not surprising that the only trial that defined ultra high risk status on the basis of repeated baseline assessments over time (to better exclude people who already had full psychotic disorder at baseline) had a low transition rate of only 8%.⁷ The same problem applies when assessing transition at follow-up assessments.

Secondly, populations in studies of ultra high risk groups consist largely of people already diagnosed with mental disorders (mostly common mental disorders such as anxiety and depression) who seek help at mental health services.⁸ Thus, “transition” is not the transition from health to disorder, but mostly from a common mental disorder with a certain degree of psychosis to one with a greater degree of psychosis. Given the flexibility of diagnostic criteria in psychiatry, and the large degree of heterogeneity within groups of patients with a certain diagnosis, a new diagnosis within the schizophrenia spectrum can often be applied in the context of such transitions. However, to what degree does a diagnostic shift combining fuzzy categorical and dimensional expressions of psychopathology represent a valid outcome for a randomised controlled treatment trial?

Thirdly, given the arguably arbitrary distinction between transition and non-transition, it is not surprising that prospective

research has established that transition is not relevant to longer term outcome. A study of a large ultra high risk sample (n=230), with more than seven years of follow-up, showed that less than 50% of those with the poorest functional outcome came from the group who had made the transition.⁹

So what can we conclude? It may make sense to focus on treating psychosis in non-psychotic disorders. A less complex interpretation of Stafford and colleagues' meta-analysis is possible, which is in line with the notion of clinical staging.¹⁰ For patients diagnosed as having common mental disorder with psychotic symptoms of varying severity, which is usually associated with poorer outcome, early treatment of psychotic symptoms may have beneficial effects on the course of psychosis expression. The effect of CBT compared with supportive counselling in reducing the severity of positive psychotic symptoms (arguably the more valid outcome given the problems with defining transition) is small (fig 4 of the linked paper).¹ However, the largest and best conducted trial to date showed that CBT did not affect the outcome of transition but did substantially decrease the severity of psychotic symptoms.⁷

Longer term follow-up studies are needed to examine the degree to which early treatment of psychotic symptoms in non-psychotic disorder is associated with better long term outcome. Such studies should use valid outcome measures, such as functioning in the community, rather than the fuzzy concepts of diagnostic shift that were measured in the studies examined in the current meta-analysis.

Competing interests: Both authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from

any organisation for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

Provenance and peer review: Commissioned; not externally peer reviewed.

- 1 Stafford MR, Jackson H, Mayo-Wilson E, Morrison AP, Kendall T. Early interventions to prevent psychosis: systematic review and meta-analysis. *BMJ* 2013;346:f185.
- 2 Linscott RJ, Van Os J. An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: on the pathway from proneness to persistence to dimensional expression across mental disorders. *Psychol Med* 2012; published online 17 Jul.
- 3 Kaymaz N, Drukker M, Lieb R, Wittchen HU, Werbeloff N, Weiser M, et al. Do subthreshold psychotic experiences predict clinical outcomes in unselected non-help-seeking population-based samples? A systematic review and meta-analysis, enriched with new results. *Psychol Med* 2012; published online 20 Jan.
- 4 Wigman JT, van Nierop M, Vollebergh WA, Lieb R, Beesdo-Baum K, Wittchen HU, et al. Evidence that psychotic symptoms are prevalent in disorders of anxiety and depression, impacting on illness onset, risk, and severity—implications for diagnosis and ultra-high risk research. *Schizophr Bull* 2012;38:247-57.
- 5 Kelleher I, Keeley H, Corcoran P, Lynch F, Fitzpatrick C, Devlin N, et al. Clinicopathological significance of psychotic experiences in non-psychotic young people: evidence from four population-based studies. *Br J Psychiatry* 2012;201:26-32.
- 6 Fusar-Poli P, Van Os J. Lost in transition: setting the psychosis threshold in prodromal research. *Acta Psychiatr Scand* 2012; published online 9 Nov.
- 7 Morrison AP, French P, Stewart SL, Birchwood M, Fowler D, Gumley AI, et al. Early detection and intervention evaluation for people at risk of psychosis: multisite randomised controlled trial. *BMJ* 2012;344:e2233.
- 8 Fusar-Poli P, Nelson B, Valmaggia L, Yung AR, McGuire PK. Comorbid depressive and anxiety disorders in 509 individuals with an at-risk mental state: impact on psychopathology and transition to psychosis. *Schizophr Bull* 2012; published online 22 Nov.
- 9 Lin A, Wood SJ, Nelson B, et al. Neurocognitive predictors of functional outcome two to 13 years after identification as ultra-high risk for psychosis. *Schizophr Res* 2011;132:1-7.
- 10 McGorry PD. Risk syndromes, clinical staging and DSM V: new diagnostic infrastructure for early intervention in psychiatry. *Schizophr Res* 2010;120:49-53.

Cite this as: *BMJ* 2013;346:f304

© BMJ Publishing Group Ltd 2013