Challenges to the uniqueness of psychotic experience in psychosis: insights on research methodology and intervention

Linda CW LAM

Summary: Paul Bebbington’s recent Special Article on the value of psychosocial epidemiology as a tool for understanding the symptomatology of psychosis provides a fresh perspective on understanding the etiology of schizophrenia and related psychotic conditions. Assessment of psychotic-like experiences in non-clinical populations may help to clarify the role of non-psychotic symptoms such as anxiety and depression in the onset and course of psychotic disorders. This approach may also make it possible to expand the repertoire of interventions for preventing the onset or ameliorating the course of psychotic conditions. There is, however, a long road to travel before the mapping of the relationships between brain pathology, psychological symptoms, environmental stressors, and clinical diagnoses are sufficiently detailed to merit the creation of a new psychiatric nosology.

Keywords: psychosocial epidemiology; psychosis; non-psychotic symptoms; psychosocial stressors; prodromal psychosis

In his narrative review on the presentations and mechanisms of psychosis, Paul Bebbington highlighted the new method of ‘analytical psychosocial epidemiology’ and the fresh perspective on symptomatology of this method. Over the last century, the theories adopted to explain the phenomenology of psychosis shifted from a psychoanalytical paradigm to a biological paradigm – a paradigm which considers the core symptoms of psychosis manifestations of aberrant brain function arising from disturbed biological processes. Given the focus on the central syndrome of psychosis with hallucinations, delusions and thought disturbances, other concurrent symptoms that reflect psychological distress have been under-emphasized in both diagnosis and treatment. While attention to the neural mechanisms underlying core psychotic symptoms has brought significant advances in the treatment of psychosis, there are still major gaps blocking the road to recovery. Most people suffering from psychotic disorders still experience suboptimal mental status despite significant alleviation of hallucinations and delusions with medication and other treatment. What are the missing links and, more importantly, are there any new approaches that would help to optimize clinical outcomes?

The advanced epidemiological methods referred to by Bebbington have helped uncover the wide range of manifestations of significant psychological distress in people with psychotic disorder. This line of research has shown that psychotic symptoms are not unique to people with clinical psychotic disorders; about 4% of community-dwelling individuals endorse psychotic-like experiences, although most of them do not suffer from a diagnosable disorder and are functioning well. A significant proportion of people with psychotic disorder present with co-existing mood disturbances and nonspecific psychological symptoms. In adolescents with anxiety and depressive symptoms, the presence of psychotic-like symptoms may represent a severe end of mood disorder. Additionally, the endorsement of psychotic-like experiences in teenagers has been reported to be associated with subsequent development of non-psychotic psychiatric disorders in adulthood. Overall, the specificity of the matching of
symptoms and diagnoses using the current diagnostic classification systems is quite low. As suggested by Bebbington, a pure topographical model for psychosis is not sufficient to explain these epidemiological observations, especially when the full spectrum of subclinical experience found in non-clinical community populations is considered. It may be reasonable to consider the psychological disturbances observed in psychotic and non-psychotic disorders markers of underlying functional brain abnormalities, but it is premature to postulate a full model that captures the complex relationships of all of these factors.

One important concern raised by this special review relates to its insights about early intervention for psychotic disorders. Given the typically late presentation with a corresponding long duration of untreated psychosis of schizophrenia and other psychotic disorders, there has recently been extensive development of early intervention programs for psychosis in different localities. Controversy and consensus about the standard treatment protocols and about the categorization of preclinical or prodromal psychotic states are major unresolved issues. Bebbington adds a new perspective on this debate by asking whether or not intervention for the non-psychotic symptoms in potentially high risk individuals would attenuate the risk for subsequent development of psychotic disorders? For example, early treatment for emotional instability, worries, and sleep disturbances in people with a predisposition for psychosis may help prevent the onset of psychosis.

To address this hypothesis, the next logical step would be to develop integrated early-intervention approaches for non-psychotic psychological symptoms in susceptible individuals. Methodologically, identifying the ‘high-risk’ target groups for such interventions would be even more challenging than for the current early-intervention studies because the spectrum of symptoms being considered would extend beyond the usual paradigm of hallucinations and delusions.

Observations of symptomatology and associated factors in psychiatric epidemiology also help in the exploration of different factors that modulate the development of psychosis. Social factors such as stressors are well recognized as precipitants of poor mental health, but this apparent ‘common sense’ understanding has not been integrated into the theoretical models of the onset and development of psychosis. Empirical evidence to substantiate the association between stressful life events and psychosis has only emerged recently, findings that make it reasonable to explore the causality of psychosis from different theoretical frameworks. In people who are constitutionally vulnerable, exposure to psychosocial stressors may trigger a series of severe psychological reactions that can persist long after the triggering event. Bebbington reminded readers that new psychosocial assessment techniques, such as experiential sampling methodology (ESM), can now be used by researchers to assess the real-time impact of rapidly changing social environments on symptomatology. Results from the highly detailed prospective tracking of how a person’s mind reacts to the immediate environment may help to refine current methods of psychosocial intervention, especially individual-based interventions.

Appreciation of the overlapping symptom dimensions across different psychiatric diagnoses may broaden the horizon of treatment options. This promising possibility is supported by recent research on dampened neuroplastic responses in different psychiatric conditions. It may be possible to develop such transdiagnostic or generic treatment approaches that can restore aberrant brain activities and, thus, achieve a certain level of symptom control. However, much more research is needed to improve the mapping of the ‘brain pathology—psychological symptoms—clinical diagnosis’ matrix before it will be possible to propose a new psychiatric nosology that captures the complexity of these relationships.

Conflict of interest
The author reports no conflict of interest related to this commentary.

Funding
The author received no funding to prepare this commentary.
References

1. Bebbington P. Unravelling psychosis: psychosocial epidemiology, mechanism, and meaning. *Shanghai Arch Psychiatry*. 2015; 27(2): 70-81. doi: http://dx.chinadoi.cn/10.11919/j.issn.1002-0829.215027

2. Van Os, Verdoux H, Maurice-Tison S, Gay B, Lirand F, Salamon R, et al. Self-reported psychosis-like symptoms and the continuum of psychosis. *Soc Psychiatry Psychiatr Epidemiol*. 1999; 34: 459-463

3. Johns LC, Cannon M, Singleton N, Murrany RM, Farrell M, Brugha T, et al. Prevalence and correlates of self-reported psychotic symptoms in the British population. *Br J Psychiatry*. 2004; 185: 298-305. doi: http://dx.doi.org/10.1192/bjp.185.4.298

4. Shevlin M, Murphy J, Dorahy MJ, Adamson G. The distribution of positive psychosis-like symptoms in the population: a latent class analysis of the national Comorbidity Survey. *Schizophren Res*. 2007; 89: 101-109. doi: http://dx.doi.org/10.1016/j.schres.2006.09.014

5. Stochl J, Khandaker GM, Lewis G, Perez J, Goodyer IM, Zammit S, et al. Mood, anxiety and psychotic phenomena measure a common psychopathological factor. *Psychol Med*. 2015; 45: 1483-1493. doi: http://dx.doi.org/10.1017/S003329171400261X

6. Downs JM, Cullen AE, Barragan M, Laurens KR. Persisting psychotic-like experiences are associated with both externalising and internalising psychopathology in a longitudinal general population child cohort. *Schizophr Res*. 2013; 144: 99-104. doi: http://dx.doi.org/10.1016/j.schres.2012.12.009

7. Schiffman J, Carpenter WT. Attenuated psychosis syndrome: benefits of explicit recognition. *Shanghai Arch Psychiatry*. 2015; 27(1): 48-51. doi: http://dx.doi.org/10.11919/j.issn.1002-0829.215015

8. Freeman D, Startup H, Myers E, Harvey A, Geddes J, Yu LM, et al. The effects of using cognitive behavioural therapy to improve sleep for patients with delusions and hallucinations (the BEST study): study protocol for a randomized controlled trial. *Trials*. 2013; 14: 214. doi: http://dx.doi.org/10.1186/1745-6215-14-214

9. Udachina A, Varese F, Myin-Germeys I, Bentall RP. The role of experiential avoidance in paranoid delusions: an experience sampling study. *Br J Clin Psychol*. 2014; 53: 422-432. doi: http://dx.doi.org/10.1111/bjc.12054

10. Notaras M, Hill R, van den Buuse M. The BDNF gene Val66Met polymorphism as a modifier of psychiatric disorder susceptibility: progress and controversy. *Mol Psychiatry*. 2015; Epub ahead of print. doi: http://dx.doi.org/10.1038/mp.2015.27

11. Carragher N, Krueger RF, Eaton NR, Slade RT. Disorders without borders: Current and future directions in the meta-structure of mental disorders. *Soc Psychiatry Psychiatr Epidemiol*. 2015; 50: 339-350. doi: http://dx.doi.org/10.1007/s00127-014-1004-2

Dr Linda Lam is Professor and Chairman at the Department of Psychiatry of the Chinese University of Hong Kong (CUHK), Fellow of the Hong Kong College of Psychiatrists and the Royal College of Psychiatrists (United Kingdom), Immediate Past President of the Hong Kong College of Psychiatrists, past Chief Editor of the East Asian Archives of Psychiatry, and the founding President of the Chinese Dementia Research Association. Dr Lam’s main research interests have been the assessment of neurocognitive disorders, identification of risk factors and early intervention for cognitive decline in late life. She has recently completed the first territory wide epidemiological survey of mental disorders in Hong Kong and pioneered structured lifestyle cognitive and physical activity interventions for Chinese older adults with neurocognitive disorders.