Unpacking the phenomenon of declining transition rates to first episode psychosis: the dyad of science and service reform in action

Jean-Gabriel Daneault\textsuperscript{1,2,3}

Jai L Shah\textsuperscript{1,4}

\textsuperscript{1}Prevention and Early Intervention Program for Psychoses (PEPP-Montreal), Douglas Mental Health University Institute, Montréal, QC, Canada

\textsuperscript{2}Clinique J.-P. Mottard, Hôpital en santé mentale Albert-Prévost, Montréal, QC, Canada

\textsuperscript{3}Département de Psychiatrie, Université de Montréal, Montréal, QC, Canada

\textsuperscript{4}Department of Psychiatry, McGill University, Montréal, QC, Canada

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As early intervention services for psychosis have gained traction internationally, their success has provided opportunities to identify and answer important clinical questions through research, while simultaneously improving interventions and how they are provided. One such example is that of debates regarding the utility of the clinical (or ultra, UHR) high-risk state for psychosis, which have attracted controversy due to evidence that transition rates from UHR to first episode psychosis have decreased over the past decade or more (Fusar-Poli et al., 2013).

Thus far, explanations for this decrease have focused on changes in referral pathways and recruitment strategies (Yung et al., 2007). These range from progressive inclusion of cases with inherently lower risk of transition to psychosis (dilution of risk (Hartmann et al., 2016; Simon et al., 2014)), cases that are earlier in the course of their symptoms and require longer observation before registering transitions (lead-time bias (Wiltink et al., 2015)), and/or the notion that increased lead time allows for therapeutic interventions to be more effective (presumed effectiveness of earlier intervention (Nelson et al., 2016)).

Formica et al now examine a fourth potential hypothesis for declining transition rates: that changes in the content and intensity of standard treatment may be contributing to greater effectiveness of ‘treatment as usual’ (TAU) over time (Formica et al., 2020). To explore this, the authors initially found that number of treatment sessions, use of problem-solving therapy, and use of cognitive behavioural therapy (CBT) increased as a function of year of clinic entry. When these changes were accounted for, the relationship between baseline year cohort and transition rate disappeared, suggesting that improvements in standard TAU may be contributing to the decline in transition to psychosis in recent UHR cohorts. In other words, even while research was demonstrating that some active interventions were effective, the ‘background’ TAU may have itself improved with successive cohorts, and this too may have contributed to the reduced transition rates.

Interestingly, apart from psychoeducation, these treatment variables (total number of sessions, problem solving therapy, CBT, and its subcomponents – coping strategies, cognitive challenging, and goals identification) did not directly predict transition to psychosis in themselves when baseline year cohort was included as a covariate. This suggests that such variables are only indirect contributors to transition rates in UHR subjects, hinting at other elements at play. For example, there is evidence that CBT has a detrimental effect when therapeutic alliance is poor, and a beneficial effect when alliance is strong (Goldsmith et al., 2015). Good therapeutic alliance might in turn encourage patients to better prepare for sessions, attend more appointments, and ultimately to gain more from therapy.
And of course, therapeutic alliance is but one aspect of the broader construct of engagement, which includes additional dimensions (Becker et al., 2016) such as attendance, adherence, motivation, satisfaction, and so on. While it is important to attempt replication of Formica et al.’s initial conclusions in independent samples, the investigators may find it valuable to explore downstream lines of investigation in their original dataset, such as the possibility that elements of engagement (especially those previously shown to diverge across differential trajectories to psychosis (Daneault et al., 2019)) have changed over time in UHR service settings, and whether this then might be linked to changing transition rates.

Intriguingly, one treatment that moderated the relationship between cohort and declining psychosis risk – CBT – is a nonspecific intervention used in a wide range of populations, that has been tailored and adapted to phenomena experienced in early psychosis. The current study’s findings strengthen the notion that this and other nonspecific interventions (with a relatively low risk/benefit ratio) can be both effective as well as improved upon over time. Similarly, more detailed examinations regarding the contribution of CBT, its components, or other treatment modalities could use continuous variables, additional measures such as level of training or experience of therapists, and/or mixed methods (including qualitative approaches) to shed further light on relevant factors and their successful implementation.

It should also be noted that transition rates are not the only important outcome in UHR populations. Multiple studies have found that UHR subjects have poor functioning, regardless of whether they ultimately do or do not transition to psychosis (Beck et al., 2019; Carrion et al., 2016; Fusar-Poli et al., 2015). If improved treatment were to also moderate the relationship between year of clinic entry and functioning, this would add yet another rationale to the argument for providing more intensive interventions to UHR groups – further indicating that while presenting with “sub-threshold” symptoms, these individuals have a demonstrable need for care (McGorry, 2013; McGorry and Nelson, 2016; van Nierop et al., 2012) across a range of end-points.

Perhaps most of all, the study by Formica et al exemplifies how combining innovative clinical infrastructures with cutting-edge services research can drive ‘virtuous cycles’ of improved care. Their results illustrate the value – and indeed the continual need – for the coordinated study and optimization of interventions for particular populations, and the relevance of applied research and evaluation in the context of ongoing health system advances and reform.

References


