

Reappraisal

Early intervention in psychosis†

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Summary

Early intervention in psychosis services produce better clinical outcomes than generic teams and are also cost-effective. Clinical gains made within such services are robust as long as the interventions are actively provided. Longer-term data show that some of these gains are lost when care is transferred back to generic teams. This paper argues that sustaining these early gains requires both a reappraisal of generic services and an understanding of the active

ingredients of early intervention, which can be tailored for longer input in cases with poorer outcome trajectories.

Declaration of interest

S.P.S. runs an early intervention service in Birmingham. He chaired the steering group of a Department of Health funded study on economic evaluation of early intervention services.

Two papers in this issue of the *British Journal of Psychiatry* (McCrone *et al* and Gafoor *et al*)^{1,2} focus our attention once again on specialised early intervention services. From their inception when such services were considered ‘a waste of valuable resources’ (see debate in this journal)³ to the recent charge that the entire early intervention strategy places ‘faith before facts’,⁴ few mental health innovations have been more rapidly implemented or more heatedly disputed. Using data from the Lambeth Early Onset (LEO) randomised controlled trial (RCT),⁵ McCrone *et al* show that in the short to medium term, early intervention services are cost-effective.¹ Using the same data-set but extending the follow-up period, Gafoor *et al* demonstrate that gains made within early intervention care are lost over time when patients move back to generic community teams.² So is early intervention an evidence-based reform that was long overdue,⁶ or a fashionable movement that places dogma before evidence?⁴

The development of early intervention services

Early intervention is not a novel idea, with claims of its benefit dating back 200 years.⁷ In 1938, Cameron observed that ‘the therapeutic results to be obtained [in schizophrenia] are considerably better in patients in whom there is little progression towards chronicity’ and advocated a public health approach to early detection of cases in the community.⁸ Studies in the 1980s^{9,10} and Wyatt’s seminal papers^{11,12} confirmed the prognostic influence of length of untreated psychosis on outcome. In the 1990s, three emerging and interwoven strands of evidence supported the case for specialised early intervention services. First, the existence of an early window of opportunity, ‘the critical period’, was postulated on the basis of strong evidence that early trajectory and disability were strongly predictive of long-term course and outcome,^{13,14} and the greatest impact on the illness might be made during this period of neuronal and psychosocial plasticity.¹⁵ Second, the association between longer periods of untreated psychosis and poorer outcomes became firmly established.¹⁶ Third, it became clear that even well-resourced community services were not meeting the needs of young people in their first psychotic episode and had not improved their outcomes.^{17,18} Politically, an important lever for change was pressure from service users and their carers determined to tackle the ‘scandal of delays in care’ for young people with emerging psychosis.¹⁹ The policy for developing early intervention services

across the UK was therefore based not on the ‘best possible’ evidence for their effectiveness but the ‘best available’ evidence that early psychosis was being inadequately treated by generic teams (information available from the author on request).

Effectiveness of early intervention

In the past few years, the evidence confirming the superiority of specialised early intervention services over generic care in managing the critical early phase of psychosis has grown steadily, with two large RCTs in the UK (LEO trial) and Denmark (OPUS trial)^{5,20,21} and several effectiveness studies of ‘routine’ early intervention services. Under specialised early intervention services individuals experience better clinical, social and vocational outcomes, have reduced in-patient stays and are better engaged. A recent meta-analysis from pooled data of three trials showed that early intervention services significantly reduce the risk of second relapse, with a number needed to treat of 8 to prevent one relapse.²² Early intervention services appear to be highly valued by service users and their carers.²³

Some of the controversy surrounding early intervention is generated by the confusion over the different ways in which the term ‘early intervention’ is used.⁶ Early intervention can mean improving outcomes in established cases of psychosis by facilitating and consolidating recovery (early intervention services), detecting hidden morbidity in the community or within mental healthcare by identifying untreated cases (early detection for reducing duration of untreated psychosis (DUP)), or preventing the emergence of psychosis in prepsychotic and prodromal states. These are different aims, requiring different service strategies and have differing weights of evidence supporting their use.

The Scandinavian Treatment and Intervention in Psychosis (TIPS) study has tested the impact of an early detection strategy over and above a comprehensive early intervention treatment programme in four Scandinavian regions, two of which had an early detection arm (‘a parallel control’ design). Participants in the early detection group entered the treatment programme with a shorter DUP, with less severe clinical symptoms and with less serious suicidality.^{24,25} Over 2 years these individuals also had persistently lower negative symptoms and a trend towards better functional and social outcomes.²⁶ The early detection participants did not receive more robust or different treatment, but possibly experienced a non-escalation of negative symptoms, suggesting that treating early not only facilitates recovery, it also affects the

†See pp. 372–376 and 377–382, this issue.

core neurobiological deficit process that characterises the early course of the disorder.

There is genuine uncertainty whether interventions in the prepsychotic/prodromal phase can reduce the risk or delay the emergence of psychosis in high-risk groups. Only a few controlled trials have been conducted and the benefits of prodromal interventions have not been unequivocally demonstrated.^{27,28} We are at best in a state of equipoise. However, these are help-seeking individuals, distressed, often disabled and they are at high risk of developing other, sometimes enduring disorders. So although we cannot be certain of preventing psychosis on current evidence, this is not an argument for not intervening effectively in a needs-based manner.

The gains made by early intervention services appear robust mainly over the period that the service is offered. A follow-up of participants in the OPUS trial found that the clinical improvement made by individuals 2 years after treatment by early intervention services is not sustained up to 5 years. Early intervention participants were more likely to be living independently at 5 years and had fewer in-patient days over this period.²⁹ Gafoor *et al* confirm that the gains made in the first 1–2 years of early intervention services are lost once care is transferred to generic mental health teams.² Is this a case against early intervention services or a reflection of the model of care provided by generic, non-specialist teams?

Bosnac *et al* have argued that specialist early intervention teams are 'no different from those that would be considered best practice by multidisciplinary psychiatry teams'.⁴ Although intuitively correct, evidence does not support this assertion, with generic mental health teams themselves identifying lack of skills and expertise in managing first-episode cases.¹⁸ Young people who make a transition into psychosis even while under the care of generic teams still have long delays in receiving effective care.³⁰ In the treatment-as-usual arm (generic teams) of the LEO trial, at 18 months 40% of the cohort had disengaged and critical treatments were being delivered to less than a third.⁵ Provision of good multidisciplinary care may well be contingent on specialisation, and a specialist team a prerequisite for the delivery of highly skilled evidence-based care. There is, however, a genuine uncertainty about how long intensive early intervention should be provided and whether all cases should receive the same fixed period input. Answering this question is the next research challenge and three possibilities need to be explored.

Early intervention improves the early course of psychosis. Once the early intervention 'grip is relaxed' clinical gains are lost; interventions are therefore effective only as long as actively implemented. This seems to be the message from the OPUS trial and the Gafoor *et al* study, and is interestingly what is observed in antipsychotic treatment. Hence for some individuals the critical period for intervention may be longer than 2 years; it is currently 3 years in the UK National Health Service. The second possibility is that the heterogeneous trajectories of early psychosis require differentiation, with early intervention provision being tailor-made for longer periods for those with poorer early outcomes. Third, early intervention services are a complex intervention with several interacting components.³¹ We need further understanding of how this complex intervention works, i.e. what are the active 'therapeutic ingredients' within early intervention services and how these are exerting their effect. This would also inform the kind of 'maintenance' care to assure that these hard-won early gains are not lost over time.

The economic case for early intervention services is also gaining strength. Other than the McCrone *et al* study¹ in this issue, there have been three published economic evaluations from Sweden and Australia^{32–34} and one simulation study from Italy,³⁵

all showing that early intervention teams are cost-effective because of the reduction in in-patient stay. For smaller early intervention teams however, a lack of economies of scale means that this does not translate into actual cost reduction at the broader level, since beds not used by early intervention service users are filled up by others.

Future directions

Early studies of community care showed that compared with hospital-based care, multidisciplinary community teams were better able to meet the needs of people with chronic schizophrenia³⁶ and common mental disorders³⁷ without additional costs. However, a more recent Cochrane review concluded that compared with hospital-based care, community teams had 'not clearly proven effective' in treating serious mental illnesses and personality disorders.³⁸ Yet there is no clamour for disinvesting from community teams and returning to hospital-based care. The logical next step in the move from institutions to community is from generic community teams to specialist teams. Early intervention services do seem to make a difference in psychosis, influencing the early course when the disorder is at its most aggressive. Transitioning them back to generic teams appears to undo the gains. The question to ask is how to sustain this gain. Had a new antipsychotic been introduced for first-episode psychosis with results as positive as early intervention services – high adherence and acceptability, 'large' effect size and cost-effectiveness – there would be calls for it to be used beyond the initial trial period rather than doubt its effectiveness.

As health services enter a period of economic austerity, all service models will be under scrutiny. Recent policy documents from the Department of Health and The Royal College of Psychiatrists emphasise the importance of early intervention in a range of mental and behavioural disorders.^{39,40} As services seek efficiency gains, there will be concern that the current model of tertiary early intervention services taking referrals from generic teams duplicates assessments and might create treatment delays. An integrated care pathway approach whereby the entire spectrum of early intervention function is provided seamlessly in liaison with primary care is likely to be efficient, productive, acceptable to users and carers and able to deliver best possible evidence-based care. A primary-care-based generic team that provides high-quality assessments and channels individuals into broadly defined disorder-specific pathways can simultaneously deal with the problems of interface between multiple teams, concern about false positive predictions and duplicate assessments for service users. This will also provide generic teams with a new focus and explicit role and boundaries, the lack of which is sometimes cited as a comparative advantage specialist teams have. With the evidence now available, the really important question for service planners and commissioners is the future of generic teams in an increasingly specialised world.

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