Individual Placement and Support in Europe: The EQOLISE trial

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Abstract

Background: Individual Placement and Support (IPS) has been demonstrated to increase return to open employment significantly in individuals with mental health problems in the USA. Previous experience (e.g. with assertive community treatment) has demonstrated the sensitivity of complex community mental health interventions to local social and healthcare cultures. Europe has conditions of generally greater employment security than the USA, and varying (generally higher) unemployment rates and welfare benefits. Evidence of the effectiveness of IPS in these conditions, and its potential variation across them, would guide local policy and provide possible insights into its mechanism.

Methods: We conducted a randomized controlled trial of IPS versus high-quality train-and-place vocational rehabilitation in six European centres with very different labour market and health and social care conditions. A sample of 312 individuals with psychotic illness was randomly allocated (50 per site). Inclusion criteria were a minimum of two years illness duration, with at least one year of continuous unemployment and six months contact with their current mental health services. Follow-up was 18 months. The primary outcome was any open employment, and secondary outcomes included time to employment, duration of employment and hospital admission.

Findings: IPS was more effective than the vocational services for all vocational outcomes. 85 IPS patients (54.5%) worked for at least one day compared to 43 vocational service patients (27.6%). They were significantly less likely to have been rehospitalized. Local unemployment rates explained a significant amount of the variation in IPS effectiveness and both national economic growth and welfare systems influenced overall employment rates in both services.

Conclusions: IPS doubles the access to work of people with psychotic illnesses, without any evidence of increased relapse. Its effectiveness is not independent of external circumstances, particularly local unemployment rates.

Introduction

Unemployment among people with mental health problems is an internationally recognized problem (Henderson, Glozier, & Holland, 2005) (Mueser, Salyers, & Mueser, 2001). In the UK, people with mental health problems represent the largest group (40%) of claimants of incapacity benefit (Department of Work and Pensions, 2005) and across Europe mental health problems are an increasing cause of sickness, absenteeism and work disability pensions (Jarvisalo, Andersson, Boedeker, & Houtman, 2005). The commonest approach to this problem involves a range of interventions, most of which draw on traditional rehabilitation principles. These address deficits deriving directly from the disorders plus providing skills training to enhance competitiveness in the job market. This so-called ‘train and place’ approach has only limited success, more often leading to work in sheltered workshops than competitive employment (Lehman & Steinwachs, 1998). Current USA developments emphasize direct job placements, often in simple entry-level occupations, plus support to patient and employer (‘place and train’).

Individual Placement and Support (IPS) is the most intensively studied ‘place and train’ intervention. It emphasizes a ‘rapid job search’ reflecting patient preferences and ongoing support to patient and employer from an employment specialist working as an integral member of the mental health service or team (Becker & Drake, 1993). The research evidence is impressive, with several randomized controlled trials (RCTs), two meta-analyses (Crowther, Marshall, Bond, & Huxley, 2001; Twamley et al., 2005), 20 experimental and quasi-experimental studies and several demonstration sites and is reviewed in detail by Bond and colleagues in this issue (Bond, Drake, & Becker, 2008). The evidence from these studies confirms

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the superiority of IPS in the US, where it has been accepted as the recommended evidence-based practice (Bond et al., 2001).

**Why another trial?**

With such an overwhelming case for the superiority of IPS it might be assumed that there is no reason for further research. There were two compelling reasons to conduct a European trial of IPS, however. Firstly, there is evidence that the demonstrated benefits of complex mental health interventions may fail to ‘transfer’ between cultures (both between differing mental healthcare cultures and more broadly differing national cultures). This has been most clearly demonstrated with assertive community treatment (ACT). ACT was introduced into UK mental health services in the NHS Plan (Department of Health, 2000) based predominantly on meta-analyses of RCTs from North America demonstrating a significant and substantial reduction in bed usage (Marshall & Lockwood, 1998). UK studies, however, have consistently failed to find a reduction in hospitalization (Burns et al., 1999; Thornicroft, Wykes, Holloway, Johnson, & Szmukler, 1998). Indeed the UK700 study (Burns et al., 1999) was sufficiently powered to show confidently that there was no reduction. Initial responses to this finding were to question both the science of the study and then the model fidelity of the clinical services. These criticisms have been successfully refuted (Fiander, Burns, McHugo, & Drake, 2003) and subsequent research has indicated that the different outcomes are associated with differing practices in bed usage and in the availability of multidisciplinary work and outreach in standard care (Burns et al., 2007; Wright, Catty, Watt, & Burns, 2004). In short, we learned two things – that the quality of control services is a major determinant of outcome in RCTs of complex interventions and that the language we use to describe complex community mental health services is highly imperfect.

The second issue is the impact of the broader social context. Europe differs profoundly from the USA in cultural attitudes towards work. Amartya Sen, the Nobel prize-winning economist (Sen, 2001), encapsulates this in his observation that ‘during the twentieth century the US has tolerated disparities of wealth that would have brought down any European government, while during the same period European governments have tolerated levels of unemployment that would have brought down any US government’. Europe and the USA differ not only at a philosophical level but also in employment legislation and practices. There are high (albeit varying) levels of employment protection in Europe compared with a more ‘hire and fire’ culture characteristic of the USA. In addition, although European welfare benefits vary considerably both in their levels and in the mechanisms for accessing them, they are generally quite generous; there may be perceived or real financial disincentives to returning to work, the so-called ‘benefit trap’ (Immervoll, 2004).

A European study would, therefore, be indicated to estimate the ‘effect size’ of IPS in Europe which these differences between Europe and the USA (van Oorschot & Hvinden, 2000) might be anticipated to reduce. Moreover, these differences across Europe provide the opportunity of exploring their potentially modifying effects. For instance, at the inception of our study, unemployment levels in our sites ranged from 8.1% in Groningen to 3.6% in Zurich, providing the possibility to test how unemployment rates affect IPS.

**The European trial to improve Quality of Life in severe mental illness with Supported Employment (EQOLISE) trial**

Our study aimed to test these two main questions. Firstly, what is the acceptability and effectiveness of IPS in Europe? Is it as effective and acceptable in a European context as in the USA, and what aspects of local service delivery may affect its implementation? The second question was whether broad social factors (e.g. unemployment, welfare benefit level) influenced its effectiveness. To answer these two questions meaningfully it was essential that our study mirrored as closely as possible those conducted in the USA. A detailed description of the sampling, methods, and statistics has been published (Burns et al., 2007).

Our time scale (18 months follow-up) and assessments closely paralleled the major published USA studies. We were, however, more restrictive about the sample. This was limited to individuals with psychotic illnesses with major role dysfunction for a minimum of two years, who had been unemployed for a minimum of a year and were in contact with the specialist mental health services for a minimum of six months. This restriction was necessary because of the highly varied practice across the sites and the difficulty, otherwise, of characterizing the sample. It allows us, because of a more homogenous patient group, to draw conclusions about the impact of external factors on potential differences in outcomes.

We aimed similarly to ensure that the practice of the IPS intervention was as close as possible to that used in the USA. This involved initial training by Debbie Becker, intensive supervision throughout the project and regular measurement of model fidelity. IPS workers had a maximum of 25 clients and were well integrated with the mental health...
services. We were equally committed to ensure that our control services were of a high quality and representative. Sites had to be able to offer a well-established train-and-place vocational rehabilitation service that was currently used and respected by local clinicians. As many of these services operated with waiting lists, and we wished to compare like-with-like, we negotiated that they assessed referrals usually within one month of randomization and offered treatment within two months. Most of these services were full-time day centre structured programmes apart from Ulm in Germany which was residential.

Our six sites were chosen to represent the range of both family and state support for individuals with mental illness and a diverse approach to welfare systems. They are: London (UK), Ulm-Guenzburg (Germany), Rimini (Italy), Zurich (Switzerland), Groningen (the Netherlands) and Sofia (Bulgaria). Sofia was in a state of rapid social and economic change in transition from the former Soviet bloc to imminent full membership of the European Union.

We stratified by centre for gender and work history; although randomization was conducted centrally and was concealed, blinding of researchers was not possible. The sample was 60% male, average age about 38 years; 80% suffered from schizophrenia or schizoaffective disorder with the rest mainly bipolar disorder; just over half had worked for at least a month in the preceding five years.

Results

Table I shows the main results of the EQOLISE study which are reported in our main outcome paper (Burns et al., 2007). We recruited 312 patients equally between the two arms and obtained primary outcome data on all. Across all six sites 80% suffered from a schizophrenic disorder, 16.5% from bipolar disorder (again no major differences between the sites) and the remaining 3.5% from ‘other’ psychotic disorders – predominantly paranoid delusional disorders. IPS was twice as effective as the vocational services in the primary outcome of returning to open employment (working for at least one day) (54.5% versus 27.6%); IPS patients also kept their jobs longer and were less likely to be rehospitalized.

Table I. Vocational, hospitalization and drop-out outcomes.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>IPS</th>
<th>Vocational</th>
<th>Difference</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worked for at least one day</td>
<td>85 (54.5%)</td>
<td>43 (27.6%)</td>
<td>26.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>156</td>
<td>156</td>
<td>(16.4%, 37.4%)</td>
<td></td>
</tr>
<tr>
<td>Number of hours worked</td>
<td>428.8 (706.77)</td>
<td>119.1 (311.94)</td>
<td>308.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>143</td>
<td>138</td>
<td>(189.22, 434.17)</td>
<td></td>
</tr>
<tr>
<td>Number of days employed</td>
<td>130.3 (174.12)</td>
<td>30.5 (80.07)</td>
<td>99.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>154</td>
<td>152</td>
<td>(70.71, 129.27)</td>
<td></td>
</tr>
<tr>
<td>Job tenure (days)*</td>
<td>213.6 (159.42)</td>
<td>108.4 (111.95)</td>
<td>104.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>39</td>
<td>(56.03, 153.04)</td>
<td></td>
</tr>
<tr>
<td>Drop-out from service</td>
<td>20 (12.8%)</td>
<td>70 (44.9%)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>156</td>
<td>156</td>
<td>(41.5%, 22.7%)</td>
<td></td>
</tr>
<tr>
<td>Hospitalized</td>
<td>28 (20.1%)</td>
<td>42 (31.3%)</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>148</td>
<td>141</td>
<td>(–21.5%, –0.90%)</td>
<td></td>
</tr>
<tr>
<td>Percentage of time spent in hospital</td>
<td>4.6 (13.56)</td>
<td>8.9 (20.08)</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>148</td>
<td>141</td>
<td>(–8.40, –0.59)</td>
<td></td>
</tr>
</tbody>
</table>

*Bootstrapped estimates of difference between means and bias corrected and accelerated 95% confidence intervals presented. Published by permission of *Lancet* 2007.

![Percentage of patients worked for a day by centre](image)

**Figure 1.** Worked for a day by centre.

Discussion

Our study has confirmed that IPS does transfer to the European context with broadly undiminished effectiveness – a significantly greater proportion of patients obtaining open employment and these for generally a longer duration of employment. In this it confirms the existing literature from North America. It adds to this literature in three important aspects. The first of these is that the effect is shown to be robust despite the generally higher rates of welfare support and employment protection current in
Europe. This is an important finding for sceptical European practitioners, whose scepticism stems from doubts over getting employers to take on individuals with mental health problems where employment carries significant obligations for that employer. There are also doubts about patients’ willingness to risk the ‘benefit trap’, particularly given that mental health staff will have worked often over a considerable period to secure the patient’s financial wellbeing. Our experience in the two countries with the most obvious benefit traps (the Netherlands and the UK) did underline these difficulties as many more patients had to be approached to obtain the 50 who consented to take part. There was no evidence that this benefit trap affected the clinical or demographic characteristics in these two sites. The participants from these sites were not distinct in any obvious manner from those in the other four sites. There was clearly a general reluctance to risk benefits that had been laboriously built up, but this was a general factor, not one obviously associated with any specific factors (although this was neither hypothesized nor tested). Additionally, there is a trend towards the impact of the benefit trap on the effectiveness of IPS (Department of Health, 2006) and it may be that a larger trial would have found a significant association.

Our second contribution is that we have demonstrated that local unemployment rates do influence the effectiveness of IPS. There are currently two North American trials, one randomized (Cook et al., 2006) and one non-randomized (Becker, Xie, McHugo, Halliday, & Martinez, 2006) that suggest this, but generally the impression conveyed in the literature is that the success of IPS is independent of unemployment rates.

The third finding is unique to this study and somewhat unexpected – that hospitalization was reduced in the IPS service patients. We had tested hospitalization because of clinicians’ concerns that it might be raised in the IPS sample from the stress of re-entering the job market with only minimal preparation. No previous study has found a reduction. While this may be simply a chance finding it is possible that it reflects the enhanced integration of health and social services in most of Europe compared to the USA.

Our findings confirm the overall effectiveness of IPS and have contributed to its endorsement in the UK (Department of Health & Department of Work and Pensions, 2006). They have also provided some understanding of the interaction of its effectiveness with aspects of the broader social welfare and health care contexts. In studies of complex mental health interventions, outcome differences between sites can be as informative as their similarities. Exploiting the differences across Europe in such studies (rather than simply including multiple sites in order to collect a sufficiently large sample) can be a major asset rather than a complexity to be overcome. A detailed understanding of the failure to find a significant difference in Ulm and Groningen (to be reported in subsequent papers) demonstrates the importance of combining strict scientific methodology with detailed attention to process and local context.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

References


