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Implementing evidence-based supported employment in Sussex for people with severe mental illness

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Abstract

Introduction: The aim of this research was to evaluate a large-scale implementation of evidence-based supported employment for people with severe mental illness, at 17 locations throughout Sussex, England.

Method: A parallel group observational design was used to evaluate an implementation of the individual placement and support approach to supported employment. Three sites provided both a comparison pre-individual placement and support cohort ($n = 140$), and a new post-individual placement and support cohort ($n = 107$) as part of the individual placement and support implementation ($n = 446$). All individual placement and support sites involved community mental health teams forming partnerships with Southdown Supported Employment to co-locate an employment specialist into each mental health team. The primary outcome was the proportion of participants commencing competitive employment during the follow-up period.

Results: The new individual placement and support sites attained higher fidelity with respect to individual placement and support principles and practices (mean 97 of 125) than the pre-individual placement and support sites (mean 77 of 125). Significantly more individual placement and support participants commenced competitive employment than pre-individual placement and support participants (24.9% vs 14.3%). Individual placement and support participants experienced less delay before commencing their first job (153 vs 371 days), and when employed, worked more hours per week (24.3 vs 15.4 hours).

Conclusion: This implementation of individual placement and support in Sussex improved on the previous vocational services. Although progress is encouraging there is much room for improvement. More resources appear needed to support programme development, specifically to strengthen site-level management, training, technical support, fidelity assessment, programme monitoring, and outcome evaluation.

Keywords

Severe mental illness, employment, vocational rehabilitation, evidence-based practice

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Introduction

Individual placement and support (IPS) is an evidence-based form of supported employment, designed specifically for people with severe mental illness who use public funded mental health services (Bond, 2004; Bond et al., 2008). IPS is based on eight practice principles, each of which has its own evidence. These are: (a) a focus on competitive employment as an attainable goal for clients with serious mental illness; (b) eligibility based on clients' choice; (c) integration of vocational rehabilitation and mental health treatment teams; (d) services are based on clients' preferences rather than providers' judgements; (e) personalized benefits counselling is provided; (f) rapid job search rather than lengthy pre-employment training; (g) time-unlimited and individualized support; and (h) systematic job development (employment specialists build an employer network developing relationships with local employers) (Dartmouth IPS Supported Employment Centre, 2014).

The overall evidence for the effectiveness of this programme is strong, with 12 systematic reviews and 17 randomized controlled trials (RCTs) now showing that IPS outperforms the best available alternative forms of vocational rehabilitation for this client group (Marshall et al., 2014). IPS generalizes well to countries outside the United States (USA), including Canada, Hong Kong and Australia (Bond et al., 2012a; Waghorn et al., 2014).

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Generalizability to Europe is also considered feasible but with a reduction in effectiveness compared to US trials (Burns et al., 2007). This loss of effectiveness is sometimes attributed to the challenges of the local labour markets, and to the different health and welfare systems found in European countries.

In the United Kingdom (UK), IPS implementation has proven feasible, but with mixed results in terms of primary employment outcomes (Heffernan and Pilkington, 2011). The best performing IPS trial to date is the London site of the European trial to improve Quality of Life in severe mental illness with Supported Employment (EQOLISE) study, a multi-site RCT across six Eurpean centres (Burns et al., 2007). In this trial site 48% of participants commenced employment over 18 months of assistance, compared to 16% in the control group. Another promising implementation for youth with first episode psychosis was reported by Rinaldi and Perkins (2007). In this parallel group observational study, 37% of IPS participants versus 17% of controls commenced competitive employment following 12 months of assistance.

Less encouraging was the UK RCT reported by Heslin et al. (2011) where, following 12 months of assistance, only 13% of IPS participants and 7% of control participants gained competitive employment. By 24 months, the proportion commencing competitive employment increased to 22% for IPS versus 11% for control participants. However, these unexpectedly low results are partly explained by a conservative definition of employment, which was defined as 30 days or more in a job, rather than the usual 1 day or more of competitive employment.

In summary, previous trials of IPS in the UK have produced varied results on the primary outcome variable, commencing competitive employment, ranging from 13% to 48% following 12 months or more of assistance. This is substantially less than the 60% or more expected to commence employment in high fidelity US trials of IPS (Bond et al., 2012a). In addition, all UK implementations to date have been small research trials, more similar to efficacy studies than to effectiveness studies (Singal et al., 2014). A drop in effectiveness is usually expected when small trials are expanded in a larger roll-out phase. This is because differences among sites and among staff add to outcome variation. Yet quantifying this expected drop in effectiveness is difficult because no UK studies, to our knowledge, report outcomes from large-scale implementations of IPS. In addition, the larger the scale of implementation, the longer it can take to achieve good IPS fidelity at each participating location, and the longer it can take to reach expected performance levels. The absence of the additional research infrastructure, which so often accompanies controlled trials, can further moderate effectiveness in large-scale roll-outs.

Our aim was to evaluate the effectiveness of a large-scale implementation of IPS at 17 locations throughout Sussex. Employment outcomes were compared to those attained at three sites where a pre-IPS vocational rehabilitation programme was established prior to conversion to IPS practices. The specific evaluation aims were: (a) to assess the quality of implementation and the extent of adherence to IPS principles and practices at each location; (b) to assess the employment and education outcomes attained compared to the pre-IPS programmes; and (c) to identify ways to improve the quality of IPS implementation and improve employment outcomes attained in large-scale implementations.

Method

Study design

This was a parallel group observational design of 17 sites. Three of the 17 locations provided control site data from a previous client cohort over two years prior to conversion. These three sites then converted to IPS practices and a new client cohort was defined that excluded any pre-IPS vocational service participants (see Table 1). All sites involved mental health teams that formed partnerships with Southdown Supported Employment to co-locate an employment specialist into each mental health team. Results were benchmarked to the three pre-IPS sites as well as to the employment outcomes reported by previous IPS implementations in the UK. The IPS implementations were funded by the Brighton and Hove City Council; the East Sussex County Council and the West Sussex County Council. An evaluation plan was developed as an integral part of routine service delivery for all three pre-IPS employment services and all 17 IPS implementation sites.

The control service

The control service was a pre-IPS service that consisted of conventional vocational rehabilitation provided by an occupational therapist as a member of the community mental health team. Participants were adult mental health service clients in three urban locations in central, eastern and western regions of the city of Brighton, East Sussex. This cohort was defined as all those entering the programme at three locations between 1 April 2008 and 31 March 2009 (see Table 1). This cohort had employment outcomes tracked for a further minimum period of 12 months. One notable feature of the pre-IPS programme was that participants were admitted with vocational goals other than competitive employment. This is consistent with traditional forms of vocational rehabilitation which do not focus exclusively on competitive employment, and support other vocational goals such as voluntary work, non-competitive employment and educational enrolments.

The intervention

The IPS approach to supported employment was made available in stages at 17 mixed urban and rural sites covering the catchments of the city of Brighton and Hove, the county of East Sussex and the county of West Sussex. The locations of each IPS programme and the dates defining each cohort and the 12-month follow-up periods are

Table 1. IPS implementation in Sussex, UK.

Location	Mental health service	Southdown employment specialists full time equivalents	Pre-IPS cohort	Pre-IPS follow-up	Fidelity score at last review (max. 125)	IPS cohort	IPS follow-up	Fidelity score at last review (max. 125)
101: West Brighton, East Sussex	Millview Hospital	1	1 April 2008 to 31 March 2009	1 April 2009 to 31 March 2010	69	1 May 2010 to 30 April 2011	1 May 2011 to 30 April 2012	97
102: East Brighton, East Sussex	East Brighton CMHS	1	1 April 2008 to 31 March 2009	1 April 2009 to 31 March 2010	84	1 May 2010 to 30 April 2011	1 May 2011 to 30 April 2012	91
103: Brighton and Hove Central, East Sussex	Brighton CMHS	1 (2 PT)	1 April 2008 to 31 March 2009	1 April 2009 to 31 March 2010	77	1 May 2010 to 30 April 2011	1 May 2011 to 30 April 2012	95
201: Bexhill, East Sussex	Bexhill CMHS	1	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	96
202: Eastbourne, East Sussex	St Mary's House CMHS	2	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	104
203: Hailsham, East Sussex	Highmore CMHS	1	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	102
204: Hastings & St. Leonard on Sea, East Sussex	Westwood House CMHS & Gambier House CMHS	1	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	103
205: Peacehaven, East Sussex	Greenwich House CMHS	1	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	99
206: East Sussex	Early intervention for all of East Sussex	1	–	–		1 Jan 2010 to 31 Dec 2010	1 Jan 2011 to 31 Dec 2011	96
301: Worthing, West Sussex	Greenacres CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	83
302: Littlehampton & Shoreham by Sea, West Sussex	Pepperville CMHS & Carters Lane CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	84
303: Horsham & Storrington, West Sussex	New Park House CMHS & Storrington CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	94
304: Crawley, West Sussex	Longley House CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	109
305: Bognor Regis, West Sussex	The Bedale Centre CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	92
306: Chichester & Midhurst, West Sussex	Chapel Street Clinic & Grange Road CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	90
307: Haywards Heath and East Grinstead, West Sussex	Linwood CMHS and Springvale CMHS	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	109
308: West Sussex	Early intervention for all of West Sussex	1	–	–		1 Sep 2010 to 31 Aug 2011	1 Sep 2011 to 31 Aug 2012	105

CMHS: community mental health service; IPS: individual placement and support

shown in Table 1. The programme was implemented by Southdown Supported Employment by co-locating a full-time employment specialist into the premises of each participating mental health service. In some cases this employment specialist was linked to more than one mental health service (see Table 1).

Each IPS site received external technical support in terms of training, evaluation, and external fidelity assessments and feedback. Although the amount of this support was not quantified, a range of support activities provided to each site were recorded. These activities were intended to promote IPS services to staff and clients, to train staff in IPS practices, and to regularly monitor IPS practices and record outcomes in the same way at each site. Over the course of the project the total amount of support provided to each site was estimated at about 1 hour per week.

Participant recruitment

Volunteer participants were identified from among those who expressed a vocational goal to a mental health team member. Those who expressed a vocational goal were referred directly to the employment specialist at each site by members of the community mental health teams into which the employment specialists were co-located. Self-referrals were also accepted. Records of referrals were kept by author RV of Southdown Supported Employment. Mental health team members were discouraged from filtering clients, or from making their own judgements about whether vocational interventions were suitable for the person at that time. Vocational goals included: (a) obtaining new competitive employment; (b) voluntary work, or unpaid work experience; (c) commencing study in a formal education or vocational training programme; or (d) retaining their current employment, if the mental health team member considered their job was at risk of termination. Support was provided for all vocational goals wherever possible. Two of the locations had service contracts which permitted a limited number of self-referrals from community residents with mental illness who were not clients of the partnered mental health service.

Fidelity measures

The quality of implementation and the extent of adherence to IPS principles and practices were assessed at each location. These assessments were known as external fidelity reviews, and were conducted annually by trained external fidelity reviewers following the recommended method for fidelity assessment using the standardized 25-item IPS fidelity scale (Bond et al., 2012b). At least one of these external reviewers was an occupational therapist who had received formal training in conducting fidelity reviews by the programme developers in the USA. Each fidelity review took from 1 to 2 days and involved gathering information from multiple sources. The three conversion sites had three annual fidelity reviews prior to conversion and three annual reviews following IPS conversion. All other locations had three external fidelity reviews recorded.

Managing data quality

Data quality was managed throughout the project by author RV in her role as performance coordinator at Southdown Supported Employment, the employment organization being evaluated. Author RV manually checked and entered data into one aggregated MS Excel file for all locations on all common variables. Data from the pre-IPS cohort were collected and cleaned retrospectively, whereas data for the IPS cohort were checked and cleaned prospectively. This involved examining internal consistency, missing information, out of range values, and accuracy from two sources (the mental health service and the employment service) on a monthly basis, as information was received from each location. Maintaining an accurate data file for programme evaluation purposes was also a specified contract requirement.

Details of employment outcomes were sought from both employment services and from participants for verification. In addition, employment specialists were required to update programme information on a weekly basis. The MS Excel files for each site were closed off to the employment specialists at the end of each month from further editing. The MS Excel files were then copied, locked, and protected by author RV and returned to the employment specialists in order to record details of employment service activities during the next month. Biannual audits of files held by employment specialists were also conducted to ensure accuracy and compliance with the three commissioning contracts.

Analysis

To achieve the first aim, the quality of IPS implementation was recorded at an item level using the 25-item IPS fidelity scale (Bond et al., 2012b). To realize the second aim, the mean total scores for pre-IPS and IPS cohorts were calculated. The employment and education outcomes attained for each site within each cohort (pre-IPS and IPS) were recorded at a site level and aggregated as a combined proportion of those who commenced assistance in either programme. Power was insufficient to report and compare employment or education outcomes at a site level. Employment and vocational outcomes were first analysed using descriptive statistics. To test for statistically significant differences, two rows by two column contingency tables were constructed to represent the proportion employed and not employed, in raw terms, in each of two programme types. These were then analysed via Wald chi-square in STATA version 11, calculating odds ratios and 95% confidence intervals. With respect to the third study aim, employment and vocational results were re-examined descriptively with respect to other parameters, namely fidelity scores, referral conversion rates, timeliness variables, and rates of attrition.

Table 2. Site and participant characteristics.

	Pre-IPS	IPS
Programme characteristics		
Location type	Urban	Urban & rural (mixed)
Mental health service clients	3300	27,408
Employment consultants	3	18
Programme commenced	1 April 2008	1 Jan 2010
Cohort inclusion period	12 months	12 months
Follow-up period	12 months	12 months
Mean IPS fidelity score at last review	77/125 (range 69–84)	97/125 (range 83–109)
Client characteristics		
Males	76/140 (54.3%)	251/446 (56.3%)
Age (mean, standard deviation)	39.4, 9.9	39.6, 11.5
Psychotic disorder	51/140 (36.4%)	154/446 (34.5%)
Bipolar affective disorder	29/140 (20.7%)	48/446 (10.8%)
Major depression or dysthymia	24/140 (17.1%)	110/446 (24.7%)
Anxiety disorder	9/140 (6.4%)	18/446 (4.0%)
Personality disorder	14/140 (10.0%)	25/446 (5.6%)
Substance dependence	3/140 (2.1%)	0/446 (0.0%)
Other diagnoses	10/140 (7.1%)	91/446 (20.4%)

IPS: individual placement and support

Results

Participant characteristics

Participant demographic and clinical characteristics are shown in Table 2 by programme type. Programmes did not differ significantly by participant characteristics. Cohorts reported a similar participant mix by age and sex and primary diagnostic category. Two sites had a youth focus (sites 206 and 308 in Table 1) and as a result had greater proportions of young people with first episode psychosis.

Programme fidelity

The first aim of this study was to assess adherence to evidence-based practices. The pre-IPS sites attained a final mean IPS fidelity score of 77, in the lower end of the fair fidelity range (74–99). The IPS sites attained higher fidelity (mean 97) in the upper end of the fair fidelity range. Only five of 17 IPS sites attained good fidelity to IPS principles (range 100–114). Overall, the IPS sites showed substantial room for improvement on 10 of the 25 practices examined. Notable weak areas were the practices described by items 5, 6, 8, 10, 11, 17, 18, 21, 23 and 25 of the IPS fidelity scale (Bond et al., 2012b).

Primary employment outcome

The second aim was to assess aggregated employment and vocational outcomes. The primary employment outcome was defined as the proportion of those commencing assistance that also commenced 1 day or more of competitive employment. Overall, more IPS participants commenced competitive employment than pre-IPS clients (24.9% vs 14.3%; OR 2.0, CI 1.2–3.3, $p<.001$). This difference increased when examining only those who had an initial goal of competitive employment at the time of commencing IPS assistance (27.2% vs 14.3%, see Table 3).

Other vocational outcomes

Some participants had vocational goals other than competitive employment, therefore it was important to examine vocational outcomes in terms of those goals. To examine this aspect a secondary vocational outcome was defined as any vocational activity other than competitive employment. The pre-IPS programme performed better on vocational outcomes other than competitive employment (25.7% vs 11.4%; OR 2.7, CI 1.7–4.3, $p<.001$), a result consistent with the IPS fidelity principle of focusing on competitive employment as the primary vocational goal.

Employment duration and hours worked per week

Employment duration outcomes were not available for the pre-IPS programme. Results for the IPS programme show that 15.9% accumulated 13 weeks or more employment, while 9.6% accumulated 26 or more weeks of employment, over 12 months follow-up. On average IPS participants worked more hours per week (24.3 hours vs 15.4).

Opportunities for programme improvement

The third aim of the study was to identify ways to improve the quality of IPS implementation and improve employment outcomes attained in large-scale implementations. To achieve this we examined referrals, programme commencements, programme delays and attrition. At a descriptive level differences between programmes were apparent in terms of time from referral to programme commencement, particularly when the nature of the person's vocational goal was considered (see Table 3). The pre-IPS programme responded much more rapidly to those with initial goals other than competitive employment (mean 12.8 days) than to those with competitive employment goals (mean 76.7 days). A smaller difference was present in the IPS programme (55.1 vs 47.0 days). Nevertheless, the IPS programme could improve by reducing the delay from time of referral to commencement of employment assistance.

In terms of programme commencements, the pre-IPS programme was more efficient because more pre-IPS referrals converted into programme commencements, compared to referrals to the IPS programme (63.1% vs 41.4%; OR 2.4, CI 1.8–3.3, $p<.001$). This difference indicates the way IPS was implemented led to increased delays compared to the previous vocational service. Most IPS sites operated a waiting list both before and following

Table 3. Pre-IPS (three sites) and IPS programme 12-month outcomes (17 sites) in Sussex, UK.

Programme outcomes	**Pre-IPS** ($n = 140$)			**IPS** ($n = 446$)		
	Pre-IPS with initial goal of competitive employment	Pre-IPS with initial goal other than competitive employment	Pre-IPS with any vocational goal	IPS with initial goal of competitive employment	IPS with initial goal other than competitive employment	IPS with any vocational goal
Number of referrals (*n*)	16	206	222	834	242	1076
Mean days from referral to programme commencement	76.7	12.8	19.2	55.1	47.0	54.3
Commenced assistance (*n*)	14	126	140	401	45	446
Proportion of referrals that commenced assistance	14/16 (87.5%)	126/206 (61.2%)	140/222 (63.1%)	401/834 (48.1%)	45/242 (18.6%)	446/1076 (41.4%)
Proportion who received assistance that commenced competitive employment	10/14 (71.4%)	10/126 (7.9%)	20/140 (14.3%)	109/401 (27.2%)	2/45 (4.4%)	111/446 (24.9%)
Proportion commenced any vocational activity including competitive employment	12/14 (85.7 %)	44/126 (34.9%)	56/140 (40.0%)	152/401 (37.9%)	10/45 (22.2%)	162/446 (36.3%)
Proportion commenced any vocational activity other than competitive employment	2/14 (14.3%)	34/126 (27.0%)	36/140 (25.7)	43/401 (10.7%)	8/45 (17.8%)	51/446 (11.4%)
Proportion accumulating 13 weeks or more employment	Insufficient data	Insufficient data	Insufficient data	70/401 (17.5%)	1/45 (2.2%)	71/446 (15.9%)
Proportion accumulating 26 weeks or more employment	Insufficient data	Insufficient data	Insufficient data	42/401 (10.5%)	1/45 (2.2%)	43/446 (9.6%)
Mean days from commencing assistance to first job	437.4	304.7	371.1	153.7	101.0	152.7
Mean hours worked per week in employment	15.9	14.9	15.4	24.2	30.0	24.3
Attrition (proportion commencing assistance that dropped out before gaining a vocational benefit)	3/14 (21.4%)	97/126 (77.0%)	100/140 (71.4%)	204/401 (50.9%)	29/45 (64.4%)	233/446 (52.2%)

IPS: individual placement and support

IPS implementation and this may account for the increased programme delivery delay.

Attrition was defined as the proportion commencing assistance that dropped out before the end of the 12-month follow-up period and did not gain a vocational benefit from the programme. A vocational benefit was defined as commencing any vocational activity as shown in Table 3. Attrition was greatest in the pre-IPS programme, where 71.4% (100 of 140) of participants dropped out before gaining a vocational benefit. IPS programme attrition was lower at 52.2% (233 of 446). However, this is a damaging rate of attrition for both programmes. In the IPS programme this represents 18 (4.0%) participants lost each month over the 12-month follow-up period. Because attrition negatively impacts on results, attending to high attrition is an important programme improvement strategy. Reducing delays in programme delivery usually moderates attrition by maintaining the engagement and motivation of participants. Another way to reduce attrition is to strengthen specific practices around 'rapid commencement of job searching' and 'assertive outreach'. The latter involves making multiple and intensive attempts to locate and re-engage any participants who may have missed appointments.

In terms of delay from programme commencement to commencing the first job, IPS participants experienced less delay (153 days vs 371 days) than pre-IPS participants. Participants in the pre-IPS programme with a goal other than competitive employment experienced less delay than those with a competitive employment goal (305 vs 437 days). Participants with goals other than competitive employment also experienced less delay in the IPS programme (101 vs 154 days). This suggests that a lower priority for competitive employment goals was present in the delivery of both programmes, although this difference was less problematic in the IPS programme. The presence of this issue in both programmes supports the need to maintain a strong focus on participants with competitive employment goals. Competitive employment goals are the most challenging. Therefore, admitting people with goals other than competitive employment may divert the energy of the employment specialist to goals that are more attractive because they are usually easier to attain.

Discussion and implications

The first specific aim was to assess the quality of implementation and the extent of adherence to IPS principles and practices at each location. The results highlight opportunities for further improvement. Fidelity to evidence-based practices in 10 of 25 areas of practice, across almost all sites, could be better. This implies a need for more external technical support for implementing IPS practices, perhaps along the lines identified recently by Morris et al. (2014). Also needing attention are client referral processes, the proportion of referrals commencing the programme, the use of waiting lists and high attrition. Having an evaluation plan underpinning service delivery is a notable strength of this programme. This plan can now provide unbiased cohort evaluations at regular intervals, and link fidelity assessments to performance at each site. Sharing more information among sites about improving fidelity for specific practices, and increasing aspects of performance over time at a site level, could further improve overall performance.

The second specific aim was to assess the employment and education outcomes attained compared to the pre-IPS programmes. The results show that this large-scale roll-out of an IPS programme to 17 locations in Sussex achieved some important gains over the pre-existing pre-IPS programme. Following a minimum of 12-months assistance, more IPS participants commenced competitive employment than pre-IPS participants (24.9% vs 14.3%). This result places this implementation trial ahead of the results reported by Heslin et al. (2011) but behind those reported by Rinaldi and Perkins (2007), and about half that of the London site of the EQOLISE trial (Burns et al., 2007). This implementation differed from previous UK trials of IPS in two important ways. First, it is the largest UK implementation reported to date, and apart from having an embedded evaluation strategy, few of the additional resources that usually accompany controlled trials were present. Second, on the efficacy to effectiveness spectrum (Singal et al., 2014) this IPS implementation seems closer to an effectiveness trial than UK studies reported to date.

The primary outcome results were low in comparison to recent US trials of IPS (25% vs 60%, Bond et al., 2012a). Nevertheless, the introduction of the IPS programme is vindicated by generating more vocational benefits to participants. The transition from the pre-IPS to the IPS programme increased the focus on competitive employment as a valid recovery goal, and reduced the time to first job by approximately 5 months. On average, the IPS programme also increased the number of hours worked per week by 9 hours.

The third aim of this study was to identify ways to improve the quality of IPS implementation and improve employment outcomes attained in large-scale implementations. In this context a range of unforeseen management and staffing issues were observed during this implementation. Due to limited training resources, training in IPS was delivered gradually to each site in series. Fidelity reviews were not conducted in the same order. Consequently, sites 101–103 were the last to receive IPS training and the first to receive an external IPS fidelity review. More resources dedicated to both training and external fidelity reviews would have facilitated the earlier adoption of IPS principles and practices.

Staffing issues also affected this programme. The employment specialists in sites 201–206 were previously delivering a pre-IPS programme as employees of the previous organization that delivered this programme. With the introduction of the new employment service they became employees of Southdown Supported Employment. Consequently, it took some time for these employees to integrate into the new employer organization.

Supervision issues were also challenging. At some sites, the employment specialist did not have a full time

supervisor, and other sites were adversely affected by a change in supervisors which typically delayed the transition to IPS practices. In addition, the mental health services in Sussex underwent considerable organizational change which involved some staff moving to new locations and an overall reduction in office facilities. This affected almost all staff including those involved in delivering the IPS programme. While these unforeseen issues were not fatal to the programme, in hindsight, more resources would have facilitated the adoption of IPS practices.

The initial period in which the integration of the employment specialists into the mental health teams was the primary focus was also a period of poor outcome attainment. Educating mental health teams in the principles of IPS was challenging, and took longer than expected. For instance, some clinical staff had to be discouraged from taking over the decision as to whether a person was ready for work or not, before making a referral to the programme. As a result, Southdown staff invested additional efforts in overcoming these barriers and promoting cultural change within the mental health teams.

One aspect of IPS fidelity was not well implemented. How employment specialists engaged with employers was not directly observed by supervisors and field training was not provided. It is possible that fidelity scores for this aspect of IPS practices may overestimate the quality of practices designed to engage employers in the programme. Greater attention to field supervision and field training of employment specialists is a potentially promising area to focus on in order to improve competitive employment outcomes at all locations.

Limitations

The main limitation of this investigation is that there was no real-time control group for each site. Instead, the new service at 17 locations was compared to the previous employment service at three locations, where data were available prior to conversion to IPS. This proved an important comparison, in the absence of a real-time control group, because it revealed improvements which were not apparent from comparing these results exclusively with previous UK or US trials.

The main limitation of this implementation is that few sites seem to have received sufficient regular external technical assistance, training and support for implementing the new IPS practices. Nor was the amount and type of support and training provided to each site formally recorded. In retrospect, the amount of external assistance provided was estimated at one hour or less per week per site. A recent Australian study (Morris et al., 2014) provided on average five hours per week support to each of four sites, and still did not achieve good fidelity at two sites. Nevertheless, large-scale implementations of any psychosocial programme are challenging and typically require careful planning, sufficient resources, good management and staged implementation. Regular outcome evaluations such as this are critical for reviewing each stage of programme implementation and development.

Another limitation of this implementation is that while monthly feedback using a range of monitoring variables (see, for example, Rinaldi and Perkins, 2007) was provided to each site, aggregated results based on longitudinal outcomes for a defined cohort were not available and could not be utilized to drive programme improvement prior to this report.

Opportunities for occupational therapists

Implementing evidence-based practices on a large scale is congruent with the goals of occupational therapists specializing in mental health. This study highlights opportunities for occupational therapists to become involved in this programme. They can obtain formal training in the IPS approach and then participate in all aspects of the leadership, management, training, supervision, and evaluation at the site and regional levels (Waghorn et al., 2009b). Occupational therapists employed by mental health services could advocate for the local integration of mental health and employment services (Waghorn et al., 2011) and refocus their case management and rehabilitation roles to facilitate evidence-based supported employment programmes (Lloyd et al., 2008; Waghorn et al., 2009a).

Summary

This implementation of IPS in Sussex improved on the existing pre-IPS vocational services in several important ways. Significantly more IPS participants commenced competitive employment than pre-IPS participants, doubling the odds of commencing competitive employment for participants. However, on average, most sites achieved only fair fidelity to IPS principles, while performance reached half that expected from of the best previous implementation of IPS in the UK (Burns et al., 2007).

This reduction in effect size may result from the real world challenges that arise in large-scale programme implementations that do not emerge in smaller controlled trials. To date most studies of supported employment have been single site trials that evaluate employment outcomes in controlled environments where the trial necessarily adds resources to the programme (Oakley et al., 2003). These additional resources and support structures may inflate the effectiveness of the supported employment programmes compared to what can reasonably be expected in the less controlled conditions of large-scale implementations (Singal et al., 2014). Another point of difference is that large-scale implementations are unlikely to be studied by more rigorous (for example, randomized) research designs because of the prohibitive cost of doubling the overall size of the implementation required.

Conclusion

This study suggests that large-scale implementations of IPS may be vulnerable to loss of effect strength due to additional real world challenges in terms of both attaining high fidelity and attaining the expected level of competitive

employment outcomes. Consequently, they may need more resources than were anticipated for this programme in Sussex. Additional resources would benefit all aspects of implementation, namely: management, training, technical support, regular fidelity assessment, programme development, monitoring, and outcome evaluation. Occupational therapists employed by both employment service providers and community mental health teams can and should contribute to implementing and evaluating this programme.

Key findings

- Following a minimum of 12-months' assistance, more IPS participants commenced competitive employment than pre-IPS participants (24.9% versus 14.3%).
- Pre-IPS participants also waited longer to commence competitive employment (371 vs 153 days), and when employed, worked fewer hours per week (15.4 vs 24.3 hours).

What the study has added

This large-scale implementation of IPS in Sussex fell short of expectations based on small controlled trials of IPS in the UK, Australia, and the USA. Large-scale implementations may be more vulnerable to loss of effect strength than smaller trials. More resources appear needed to implement this evidence-based programme at all locations.

Implementing evidence-based pracices for people with severe mental illness on a large-scale is a challenging endeavour which may require greater involvement of occupational therapists specializing in this programme.

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Research ethics

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Declaration of conflicting interests

None declared.

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