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Individual placement and support in Italian young adults with mental disorder: Findings from the Reggio Emilia experience

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Abstract

Aim: Individual placement and support (IPS) has a considerable body of evidence for its effectiveness in helping people with mental disorder to achieve and maintain competitive jobs. However, little data in young adult populations are currently available, especially in Europe. Aim of this study was to assess the effect of IPS in Italian young adults with moderate-to-severe mental illness, examining the main competitive employment outcomes and drop out rates during a 3-year follow-up period.

Methods: Participants (n = 54) were recruited from patients receiving psychiatric treatment in one of the seven adult Community Mental Health Centers of the Reggio Emilia Department of Mental Health. Together with drop out rates, we investigated job duration (total number of days worked), job acquisition (employment in the labour market for at least 1 day during the follow-up), total hours per week worked, and job tenure (weeks worked on the longest-held competitive job).

Results: A crude competitive employment rate of 40.7% and a crude drop out rate of 22.2% over the 3-year follow-up period were found. However, 66% of 42 clients who remained in the program over 3 years gained competitive employment at some time during the 3-year period.

Conclusions: This research shows the feasibility of an IPS intervention model in the public mental health care system in Italy, especially for a young adult target population.

KEYWORDS

individual placement and support, mental health services, outcomes, psychiatric rehabilitation, supported employment

1 | INTRODUCTION

Employment promotes recovery in young individuals recently diagnosed with a mental disorder, but only 15% of them are effectively employed in the competitive labour market (Harvey, Modini, Christensen, & Glozier, 2013). Still until recently, no employment approach has been indisputably established as the recommended model for young adults (Bond, Drake, & Campbell, 2016).

Individual placement and support (IPS) is a psychosocial intervention aimed at helping people with psychiatric disorder in achieving and maintaining competitive jobs in the open labour market (Becker & Drake, 2003). It has shown to be an evidence-based practice with

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greater effectiveness over the other main vocational rehabilitation approaches (Burns et al., 2007). Specifically, a meta-analysis on 15 randomized controlled trials found an overall employment rate of 55% for people receiving IPS compared to 23% for controls engaged in other occupational rehabilitation interventions (Bond, Drake, & Becker, 2012). However, the majority of this evidence comes from the United States (US), where the IPS model was developed and first implemented.

In the last decade, the dissemination of these promising results has moved some mental health professionals in Europe to be interested in the transfer of IPS outside the US (Fioritti et al., 2014). The EQOLISE study (Burns et al., 2007) was the first European trial on effectiveness of IPS that confirmed the excellent findings of US researches, despite big differences in labour market regulations and in culture of mental health services. However, a relatively recent review on the generalizability of IPS model outside the US revealed that the competitive employment rates were stronger for nine US than for six non-US studies (62.1% vs 47.3%) (Bond, Drake, & Becker, 2012). Diminished effectiveness for IPS, especially in Europe, has been typically ascribed to labour and disability policies that can prevent the return to work (eg, what was referred to as the 'benefit trap') (Burns et al., 2009). Thus, further studies are needed to examine the nature and the strength of these policy factors and to determine what adaptations in Europe are necessary.

Furthermore, in the past 10 years, program leaders and policy increasingly proposed including the IPS model in early intervention protocols for first episode psychosis (FEP) (Bond et al., 2016). Prior studies have been promising (Killackey, Jackson, & McGorry, 2008; Nuechterlein et al., 2008; Nuechterlein et al., 2019). In a relatively recent review of evaluation of IPS approach in FEP patients that aggregated the results from eight international trials, 709 clients receiving supported employment achieved a 49% employment rate (Bond et al., 2016). However, the generalizability of these early intervention researches incorporating IPS is mostly limited to programs offering specialized and intensive clinical services for people with FEP. Thus, further studies on young adults with a larger spectrum of mental disorders are needed.

1.1 | IPS in Italy

During the last 40 years, a deep-reaching change of the mental health care system has occurred in Italy, resulting in a comprehensive and integrated system of community-based mental health departments that are interconnected with general hospital and the network of the other main community services (eg, general practitioners, schools and social agencies). In this context, programs aimed at employment have always been considered hallmarks of good practice in Italian community psychiatry (Fioritti, Bassi, & De Girolamo, 2003). Traditionally, they mostly include 'train-and-place' rehabilitation approaches provided in different settings, such as sheltered workshops and/or training stages by public/private employers or by social enterprises. All these activities are flexible and sometimes rapid instruments, but they are overprotective and quite stigmatizing, leave little choice to users in the type of occupation, and often keep clients out of competitive job for a long time (Fioritti et al., 2014). As the costs associated with developing and maintaining these noncompetitive employment programs are often enormous and unsustainable on a large scale for governmental institutions, Italian psychiatric departments became necessarily interested in innovative interventions of occupational rehabilitation, such as the IPS model.

After the EQOLISE trial, Emilia-Romagna Region put IPS in its policy and financed a program for IPS implementation in all of its mental health departments (including the Reggio Emilia department of Mental Health). Because the EQOLISE study was not powered to test the IPS effectiveness for the separate European countries, new evidence is needed, especially in young adult populations and in Italy, where, differently to the US socioeconomic climate, labour market is less flexible, there is a stronger social security system, and the employment opportunities are rather limited (Fioritti et al., 2014).

Starting to this background, aim of the present study was 2-fold: (a) to assess the effect of IPS in young people with moderate-to-severe mental illness, investigating the main competitive employment outcomes proposed in the literature, and (b) to explore any relevant association of these outcomes with working history, sociodemographic and clinical characteristics in the IPS worker subgroup. To date, this is the first study addressed to replicate the IPS effect in a sample of Italian young adults affected by mental disorder and to shed more light on its long-term effectiveness using a 36-month follow-up period.

2 | METHODS

2.1 | Participants

All the participants (n = 54) were clients receiving treatment for moderate-to-severe mental disorder within the Reggio Emilia Department of Mental Health [a semi-urban catchment area of approximately 550.000 inhabitants, in the northern Italy, composed of seven Community Mental Health Centers (CMHSs)] (Pelizza et al., 2019). Enrolment started on 30 June 2015 and ended on 30 June 2018.

For the purpose of the study, inclusion criteria were: (a) young working age (18-35 years), (b) moderate-to-severe mental illness with a significant role dysfunction in the previous 12 months, (c) to be in contact with CMHC for a minimum of 6 months and expected to remain during the follow-up period, (d) unemployment status at the time of enrollment and in the preceding year, (e) expressed desire for competitive job in the open employment market, (f) at least a 3-month clinical stabilization period before study admission, (g) ability and willingness to give informed consent and (h) residence in the catchment area. In details, all the participants underwent an extensive diagnostic assessment using the Structured Clinical Interview for axis I mental Disorders (SCID-I) (First, Spitzer, Gibbon, & Williams, 2002). As specified by the diagnostic and statistical manual of mental disorders, IV edition, text revised (DSM-IV-TR) criteria (APA, 2000), schizophrenia, bipolar disorder, major depressive disorder and severe personality disorders were the primary psychiatric diagnoses.

Exclusion criteria were: (a) absence of a DSM-IV-TR primary diagnosis of mental retardation (known Intelligence Quotient <70), dementia or other organic mental disorders and substance/alcohol abuse or dependence, (b) absence of significant medical conditions (such as end-stage cancer) that would preclude working during the follow-up period, (c) full-time hospitalization and (d) concomitant engagement in another traditional vocational rehabilitation trajectory.

All adults entering the research protocol gave their informed consent prior to their inclusion in the study and before interview engagement. Relevant local ethical approvals were sought for the study. The current research has been carried-out in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki) for experimental protocols including humans.

2.2 | Procedures

CMHC users were informed about the study protocol in various ways (eg, through local information meetings or directly by mental health care team members). Each client interested in participation and expressing a wish for paid employment was interviewed by IPS independent local coordinators, who were trained to assess eligibility. Young individuals who met the study criteria were accepted as participants of the study and referred for baseline assessment.

All the participants were trained by IPS specialists in accordance with the IPS approach, which is based on the following main key-principles: (a) focus on competitive employment in the open job market, (b) support in rapid job search (ie, clients are expected to obtain jobs directly, without a lengthy pre-employment training), (c) integration of vocational services with CMHCs (ie, rehabilitation is considered as an integral component of mental health intervention rather than a separate service), (d) attention to client's job preferences, (e) individualized job support with employment specialists' engagement in systematic and active job development, (f) continuous assessment based on real work experiences, (g) time-unlimited support, (h) eligibility based on client choice (ie, motivation for obtaining competitive employment is the most important condition for IPS enrolment) and (i) financial counselling about social security benefits (Drake, Bong, & Becker, 2012).

All the participants were assigned to one of the four IPS employment specialists (each one added to the multidisciplinary CMHC team) and were followed up over the course of the study. Data were collected by the Principal Investigator of this study (L.P.) through interviews on vocational outcomes at baseline and every 6 months to compare with previous IPS studies. No data were obtained for clients after they discontinued services.

Prior to start-up of the IPS program, IPS specialists received at least 4-month internal training and supervision on the IPS model and its 'place-and-train' approach to job rehabilitation from a team of IPS trainers consisting of expert on supported employment that strictly collaborated with IPS model developers in the 'IPS Employment Center' (Becker & Drake, 2003). Each IPS specialist met regularly with his allocated CMHC to raise awareness of the service and relied on CHMC staff members to refer potential participants. Referred clients were assessed by the IPS specialist for their motivation in obtaining employment before being offered the service, as well as for work preferences, past work experiences, past experiences of traditional vocational rehabilitation, duration of taking charge at CMHC (ie, before IPS enrolment), social benefits, current work skills and tolerance for type and intensity of job demands.

Similarly to the EQOLISE trial procedures (Burns et al., 2007), in each CMHC the IPS approach followed the structured and manualized model focused on the immediate support of an IPS specialist and a direct integration into competitive employment. IPS specialists supported the client by rapidly searching for vacant jobs, assisting applications, as well as coaching the client in working situations (Burns et al., 2009). Once employed, 'on the job' training and follow-along support were provided to help the individual in retaining job for as long as possible. Indeed, IPS specialists offered a time-unlimited support before, during and after periods of employment, operating in close collaboration with the other community mental health team members.

To assess the quality of the IPS implementation, we also conducted a *fidelity* assessment using the IPS-25 Fidelity Scale (Bond, Peterson, Becker, & Drake, 2012). This instrument specifically measures adherence to the IPS core principles. Indeed, it has been widely demonstrated that the lack of adequate technical assistance and training for staff members leads to IPS substandard implementation, attenuated effectiveness of the IPS program and great impairment of the quality of the resulting evaluation (Bond, Drake, & Becker, 2012). All the participating CMHCs achieved acceptable total scores on the IPS-25 Fidelity Scale both at baseline (ie, mean = 99 ± 12, with a range of 79 to 114) and throughout the follow-up period (ie, mean = 108 ± 10, with a range of 89 to 121).

According to Bond et al. (2016), competitive employment was defined as paid job in the open labour market. In the present study, we investigated the following main competitive employment *outcomes*: (a) job acquisition (ie, employment in the labor market for at least 1 day during the 36-month follow-up period), (b) job duration (ie, total number of days worked), (c) job tenure (specified as weeks worked on the longest-held competitive job), (d) total hours per week worked, (e) 'ever working ≥ 20 hours per week' (defined as the number of individuals working at least 20 hours per week at some time during follow-up) and (f) days to first job (ie, the number of days from IPS admission to first competitive job). Days to first job is a negative indicator of successful employment: that is, the longer the duration, the poorer the outcome (Bond et al., 2016). Job acquisition and 'ever working ≥20 hours per week' were dichotomous variables, while the others were continuous measures. All employment outcomes were prospectively assessed during the follow-up period, both at baseline and every 6 months. Self-reported information was derived from direct interviews and cross-checked through chart records, which were maintained by support centre staff having every week contact with all the participants. Finally, we also determined drop out rates during the 3-year follow-up period.

In the total sample, we firstly calculated crude competitive employment rate (ie, employment at any time during the follow-up period) and crude drop out rate (ie, number of participants who discontinued IPS service at any moment during the follow-up period).

TABLE 1 Employment outcomes, work history, and sociodemographic/clinical characteristics in the total sample (n = 54)

Variables		
Gender (males)	33 (61.1%)	
Ethic group (white Caucasian)	53 (98.1%)	
Age	27.25 ± 4.69	
Years of education	13.00 (0.50)	
Primary diagnosis		
Psychotic disorder	21 (38.9%)	
Mood disorder	18 (33.4%)	
Personality disorder	15 (27.7%)	
Duration (in years) of enrollment at CMHC	1.50 (2.96)	
Work history		
Previous work experiences		
Years of previous work	36 (66.7%)	
Past experience of traditional vocational rehabilitation	2.50 (7.00)	
	13 (24.1%)	
Social benefits		
Disability pension		
Unemployment insurance	16 (29.6%)	
	14 (25.9%)	
Job acquisition	2 (3.7%)	
6-month cumulative employment rate		
12-month cumulative employment rate	22 (40.7%)	
18-month cumulative employment rate	30%	
24-month cumulative employment rate	42%	
36-month cumulative employment rate	53%	
	59%	
Drop outs	66%	
6-month cumulative drop out rate		
12-month cumulative drop out rate	12 (22.2%)	
24-month cumulative drop out rate	14%	
36-month cumulative drop out rate	24%	
	24%	
	32%	
Employment outcomes in participants who obtained competitive job (n = 22)		
Days to first job		
Total days employed	138.5 (161.50)	210.55 ± 220.10
Job tenure (in weeks)	138.5 (346.75)	232.32 ± 276.84
Hours per week worked	17 (42.35)	30.20 ± 36.56
	20 (15.00)	19.59 ± 10.98
Ever working ≥20 hours per week		
	15 (68.2%)	-

Note: Frequencies, percentages, mean ± SD, median and interquartile range are reported.
Abbreviations: CMHC, community mental health center.

Secondly, we examined competitive employment rates and drop out rates every 6 months throughout the follow-up period, using a survival analysis method. Moreover, within the IPS worker subsample, we investigated any relevant association of both competitive employment outcomes and drop out condition with working history (ie, years of previous work, presence of past work experiences, presence of past experiences in traditional rehabilitation and presence of social benefits) and sociodemographic and clinical characteristics (ie, gender, age, ethnic group, years of education, primary psychiatric diagnosis and duration of taking charge at CMHC).

2.3 | Statistical analysis

Data were analysed using the Statistical Package for Social Science (SPSS) for Windows, version 15.0 (SPSS Inc., 2010). Descriptive data included mean value ± SD, median and interquartile range for quantitative variables, while absolute frequencies and percentages for categorical measures. All tests were two-tailed with level of significance set at 0.05. Non-parametric statistics were used for parameters with a non-normality distribution (Kolmogorov-Smirnov test with Lilliefors significance correction: $P < .05$).

Categorical data were analysed in between-group comparisons with Chi-square or Fisher's exact test, as appropriate (ie, when any expected frequency was <1% or 20% of expected frequency was ≤5). The Student t or the Mann-Whitney *U* test for independent samples (as appropriate) was used to compare quantitative variables. Spearman's rho (ρ) correlation coefficients were used to examine between-variable associations.

Finally, we performed the Kaplan-Meier survival analysis to take into account the different duration of follow-ups and individuals who dropped out from the study protocol. The primary aim of survival analysis is the modelling and analysis of 'time-to-event' data (ie, data that have as an end-point the time when an event occurs) (Jager, van Dijk, Zoccali, & Dekker, 2008). In this regards, events are not limited to death, but can include other significant events for the research such as job acquisition and participants who dropped out from the study protocol. We specifically calculated cumulative survival and cumulative proportion of job acquisition and subjects who dropped out (ie, 1-cumulative survival) every 6 months during the 36-month follow-up period.

3 | RESULTS

Over the course of the study, 54 young adults [33 (61.1%) males, 53 (98.1%) white Caucasians, mean age = 27.25 ± 4.69 years] were enrolled in the IPS service within one of the seven CMHCs of the

TABLE 2 Associations of job acquisition with working history, sociodemographic and clinical variables in the total sample (n = 54)

	Job acquisition		
Variables	**(yes: n = 22)**	**(no = 32)**	**(t/Z/χ^2)**
Gender: males	15 (45.5%)	18 (54.5%)	0.78
Gender: females	7 (33.3%)	14 (66.7%)	0.78
Age	27.10 ± 4.98	27.36 ± 4.55	0.19
Age group: 18-25 years	10 (45.5%)	12 (54.5%)	0.34
Age group: > 25 years	12 (37.5%)	20 (62.5%)	0.34
Years of education	12.73 ± 2.76	13.09 ± 3.25	−0.59
Duration (in years) of enrollment at CMHC	2.72 ± 2.70	2.42 ± 2.66	−0.04
Primary diagnosis: psychosis	11 (52.4%)	10 (47.6%)	1.91
Primary diagnosis: no psychosis	11 (33.3%)	22 (66.7%)	1.91
Primary diagnosis: SMI	15 (57.7%)	11 (42.3%)	5.97*
Primary diagnosis: no SMI	7 (25.0%)	21 (75.0%)	5.97*
Years of previous work	5.23 ± 5.13	3.22 ± 3.65	−1.58
Past work experience (yes)	17 (47.2%)	19 (52.8%)	1.88
Past work experience (no)	5 (27.8%)	13 (72.2%)	1.88
Past traditional rehabilitation experience (yes)	7 (53.8%)	6 (46.2%)	1.22
Past traditional rehabilitation experience (no)	15 (36.6%)	26 (63.4%)	1.22
Social benefit (yes)	7 (38.9%)	11 (61.1%)	0.38
Social benefit (no)	15 (41.7%)	21 (58.3%)	0.38

Note: Frequencies, percentages, mean ± SD, Chi-squared (χ^2) test, Student *t* test and Mann-Whitney test (Z) values are reported; *$P < .05$.
Abbreviations: CMHC, community mental health center; SMI, severe mental illness.

Reggio Emilia Department of Mental Health. Clinical and sociodemographic characteristics of the total sample are reported in the Table 1.

SCID-I was administered at baseline and showed that psychotic and mood disorders (ie, bipolar or major depressive disorders) were the most common diagnoses. In details, 48.2% (n = 26) of the participants fulfilled the criteria for what previous IPS trials have defined as Severe Mental Illness (SMI) (ie, psychotic or bipolar disorder).

Thirty-six (66.7%) individuals reported having at least one past competitive work experience [median of years worked = 2.50 years (interquartile range = 7.00 years)], 13 (24.1%) at least one previous experience of traditional vocational rehabilitation, and 16 (29.6%) a social benefit at IPS enrolment.

3.1 | Employment outcomes

The crude competitive employment rate during the 3-year follow-up period (ie, job acquisition) was 40.7% (n = 22) (Table 1). Using a Kaplan-Meier survival analysis, we observed a cumulative employment rate of 30% at 6 months, 42% at 1 year, 53% at 18 months, 59% at 2 years, and 66% at 3 years (for details, see also Table S1). In interpreting these results, it is necessary to consider that survival analysis has the disadvantage of biasing the competitive employment rate in light of the increasing drop out over time. Indeed, a recent first-episode psychosis study found that clients who remained vocationally inactive for 12 months tend to drop out of treatment (Maraj et al., 2019).

The other main employment outcomes in the IPS worker subsample (n = 22) are reported in the Table 1. In details, mean of days to first job was 210.55 ± 220.10 days, mean of total days employed was 232.32 ± 276.84 days, mean of weeks worked on the longest-held competitive job (ie, job tenure) was 30.20 ± 36.56 weeks, and mean of hours per week worked was 19.59 ± 10.98 hours. Moreover, 15 (68.2%) of the 22 IPS workers were ever working ≥20 hours per week at some time during 36-month follow-up period.

Associations of employment outcomes with working history and sociodemographic characteristics in the total sample and in the subgroup of participants obtaining competitive job are reported in the Table 2 and supplementary materials (for details, see Tables S2 and S3).

In the total group (n = 54), participants with SMI showed a higher percentage of job acquisition than those without SMI (15 [57.7%] vs 7 [25.0%], $\chi^2 = 5.97$, $P = .039$) (Table 2). No further significant association of job acquisition with other clinical and sociodemographic characteristics (ie, gender, age at entry, years of education, and duration of taking charge at CMHC), years of previous work, past work experience, paste experiences of traditional vocational rehabilitation, and social benefits was also found.

In the subsample of participants obtaining competitive employment (n = 22), young adults with social benefit had a significantly higher number of total days employed than those without social benefit (425.71 ± 330.29 vs 142.07 ± 201.95, Z = −2.08, $P = .028$) (for details, see also Table S2). Moreover, in comparison with females, male participants showed a higher number of days to first job (260.20 ± 251.25 vs 104.14 ± 53.80, Z = −1.99, $P = .044$). Finally, hours per week worked had significant negative correlation with age ($\rho = -0.604$, $P = .019$) (for details, see also Table S3). No further relevant association of employment outcomes with other sociodemographic and clinical characteristics (ie, years of education, duration of taking charge at CMHC, primary diagnosis of psychosis or SMI), years of previous work, past work experience and past experiences of traditional vocational rehabilitation was also found.

3.2 | Drop out rate

The crude drop out rate during the 3-year follow-up period was 22.2% (n = 12) (Table 1). Using a Kaplan-Meier survival analysis method, we observed a cumulative drop out rate of 14% at 6 months, 24% both at 1 and 2 years and 32% at 3 years (for details, see also Table S4).

Associations of 'drop out' condition with working history, sociodemographic and clinical characteristics in the total IPS sample are shown in the Table 3. In details, participants who dropped-out at

TABLE 3 Associations of 'drop out' condition with working history, sociodemographic and clinical variables in the total sample (n = 54)

	'Drop out' condition		
Variables	(yes: n = 12)	(no = 42)	(t/Z/χ^2)
Gender (males)	8 (24.2%)	25 (75.8%)	0.20
Age	28.11 ± 4.22	27.01 ± 4.83	−0.71
Age group (> 25 years)	8 (25.0%)	24 (75.0%)	0.35
Years of education	11.17 ± 2.41	13.45 ± 3.04	−2.22*
Duration (in years) of enrollment at CMHC	0.75 ± 0.29	2.77 ± 2.72	−1.68
Primary diagnosis (SMI)	8 (30.8%)	18 (69.2%)	2.12
Years of previous work	5.00 ± 4.86	3.76 ± 4.26	−0.77
Past work experience	9 (25.0%)	27 (75.0%)	0.48
Past traditional rehabilitation experience	1 (7.7%)	12 (92.3%)	2.09
Social benefit	3 (16.7%)	15 (83.3%)	0.48

Note: Frequencies, percentages, mean ± SD, Chi-squared (χ^2) test, Student *t* test and Mann-Whitney test (Z) values are reported; *$P < .05$.
Abbreviations: CMHC, community mental health center; SMI, severe mental illness.

some time during the 3-year follow-up period (n = 12) exclusively showed a significantly lower number of years of education than those who did not drop out (11.17 ± 2.41 vs 13.45 ± 3.04, Z = −2.22, *P* = .038). No other relevant association of drop out condition with gender, age, duration of enrolment at CMHC, primary diagnosis of psychosis or SMI, years of previous work, past work experience, previous experiences of traditional vocational rehabilitation and presence of social benefits was also found.

4 | DISCUSSION

First aim of the present research was to assess the long-term effect of IPS approach in young adults with moderate-to-severe mental illness attending to the seven adult CMHCs of the Reggio Emilia Department of Mental Health, examining the most used competitive employment outcomes in the daily practice of a public mental health care service in Italy. Indeed, as the EQOLISE study was not powered to test the IPS effectiveness for the separate European countries, new evidence in Italy is needed, especially in a young adult population living in a country where, differently to the US labour economics, there is a very structured social security system, the labour market is poorly flexible, and the employment opportunities are currently limited (Fioritti et al., 2014).

4.1 | Employment outcomes

During the 3-year follow-up period, a crude competitive employment rate of ~41% in the total sample was found. This finding is lower than that those reported in two IPS trials specifically conducted on young people with FEP in the US (69% in an 18-month follow-up period) (Nuechterlein et al., 2008) and in Australia (71% in a 6-month follow-up period) (Killackey et al., 2008; Killackey et al., 2018), as well as that observed in another study on young patients with SMI (82% in an 18-month follow-up period) (Bond et al., 2016). Diminished effectiveness for IPS in Italy could be attributed to strong labour and disability policies that may prevent the return to work (eg, the 'benefit trap') (Burns et al., 2009), and, more generally, to specific structural, organizational and individual barriers to employment for mental health service users. An example of structural (or societal) barrier is the employer prejudice against young people affected by mental disorders (Schneider & Akhtar, 2012). Crucial organizational barriers could be a shortage of vocational skills on the part of mental health staff (who are largely responsible for shaping the aspirations of service clients) and a potential situation in which users are sometimes discharged from mental health services on starting work, when they still require support and encouragement (Boyce et al., 2008). Finally, individual-level barriers may be due to low self-confidence, lack of work motivation or aspirations and specific cognitive impairments associated with particular mental disorders (McGurk & Mueser, 2004).

Using a survival analysis method, our cumulative employment rates achieve higher values (ie, up to 66% after 36 months of follow-up). However, as survival analysis has the disadvantage of biasing the competitive employment rate in light of the increasing drop out rate over time, the current way to report this finding is that 66% of 42 clients who remained in the program over 3 years gained a competitive job at some time during the 3-year follow-up period. This result is consistent with those reported in the EQUOLISE study and in the most US trials, suggesting an upper effectiveness of IPS methodology over the other traditional vocational rehabilitation approaches (Fioritti et al., 2014). Specifically, a rigorous evaluation of IPS showed that ~60% of IPS clients obtained competitive jobs compared to about 25% of those who received other types of vocational assistance (Bond et al., 2016). Therefore, IPS model seems to help an additional 35% of the target group who otherwise remain unemployed (Bond, Drake, & Becker, 2012).

Our findings also seem to support the inconsistency of concerns that several clinicians often raised about the potential detrimental impact of the IPS model. Specifically, they frequently worried that IPS (ie, rapid job searching attempts and the efforts to hold a competitive employment) might lead to increased anxiety and uncertainty in patients with mental disorders because of the threat of returning to the workplace without a protracted preparation period (Viering et al., 2013). For these reasons, mental health professionals often discouraged clients from applying for competitive employment because they were convinced that a stressful surrounding would have led to a destabilization of the patient. To date, no evidence supported these concerns and a deterioration in mental or social functioning at final follow-up in the IPS compared to the traditional vocational services (Burns et al., 2015). In fact, it has been demonstrated that finding employment into the competitive labour market leads to increase self-esteem, self-efficacy, motivation to pursue life goals, and, more generally, global functioning and quality of life, due to receiving a salary, as well as reducing dependence on social security benefits and the chance of finding more social contacts (Burns et al., 2009). Finally, it should also be taken into consideration that working in a sheltered employment or within other traditional vocational rehabilitation environment often means revealing one's illness and hence a fear of not being accepted in the society. Employer prejudice and fear of public stigma (as well as self-stigma) may stop people from seeking competitive employment. In this sense, the IPS approach can help to face particular barriers as a result of prejudice and stigma (Schneider & Akhtar, 2012).

As job acquisition has been criticized as a crude indicator, other competitive employment outcomes have been suggested as measure of IPS effectiveness, including time to first job, job duration and job tenure. In the current study, median of days to first job (about 138 days) is substantially in line with what reported in other IPS studies on young adults with FEP or SMI [ie, 137 days (Nuechterlein et al., 2008), 126 days (Bond et al., 2016)]. Together with the evidence that ~82% of our participants obtaining work achieved competitive job within 1 year of follow-up, this finding seems to support that little is lost in terms of job acquisition by limiting the duration of involvement in IPS service to 12 months. Given current difficulties in implementing IPS in times of austerity, a time-limited model could be an alternative

choice for new services, especially in young adult populations (Burns et al., 2015).

Furthermore, these results contradict the assumption made by earlier theoretical formulations of supported employment, which theorized that clients with SMI required an extended period of career planning before starting the job search (Anthony & Blanch, 1987). On the contrary, our findings support the view that job search should not be delayed by skill training or other preparatory activities. Indeed, to date, no current evidence indicates that delaying job search enhances job tenure (Bond, Drake, & Becker, 2012).

Overall, our results on job duration, job tenure, and hours per week worked appear are substantially comparable with those reported in the most US IPS trials, while excelling in the European context. In this regards, we found a mean of total days employed (about 232 days) that is higher than those reported in the EQUOLISE study (214 days in an 18-month follow-up period) (Burns et al., 2007) and in other European IPS researches [eg, 74 days in a 12-month follow-up period (Burns et al., 2015), 123 days in a 30-month follow-up period (Michon et al., 2014)]. Similarly, in the current study, both mean of hours per week worked (~20 hours/week) and job tenure (ie, the mean of weeks worked on the longest-held competitive job) (about 30 weeks) are definitely greater than those observed in a UK 12-month follow-up trial (respectively, 15 hours/week and 18 weeks) (Burns et al., 2015). Finally, in the present research, consistently with what reported in other US IPS trials (Bond et al., 2016; Bond, Drake, & Becker, 2012), almost two-thirds of IPS workers worked 20 hours or more per week at some time during the 36 months of follow-up. Few IPS clients worked full-time, probably due to limited stamina, preferences, and/or fear of losing health insurance or other benefits.

However, despite these encouraging results, a transfer of IPS methodology to Italy requires the overcoming of specific controversial issues. Firstly, we must consider the fact that some clients find jobs in the informal 'black labor market', which differently to the set of values in the Italian constitution (defining work as a right of the individual), represents 10%-50% of all employment opportunities in different regions, mostly comprising jobs requiring non-specialized manpower (Fioritti et al., 2014). Another controversial question is the precarious nature of jobs in Italy. Indeed, in the current research, most participants (~70%) find part-time employment in 6-12 month contact, which is very far from the gold standard of full-time and forever that traditional Italian regulations would require (Fioritti et al., 2014). Precarious jobs represent ~50% of employment opportunities for all young workers in Italy. Conversely, social enterprise and temporary grant jobs are often not precarious, as they tend to last forever, and are an economically protected niche. For these reasons, many mental health clients may be apprehensive about participating in a new vocational program aimed at competitive employment, and they may opt for continuing in the more familiar and comfortable environment of existing services (Oshima, Sono, Bond, Nishio, & Ito, 2014). The third important controversial issue regards the 40%-50% of users who do not find a job with IPS and still demand work. In this respect, Fioritti and co-workers (2014) proposed as an alternative to provide IPS model along with other treatment option, possibly in a stepwise order [ie, strategies supporting the individual in entering mainstream jobs should be used at first and for a sufficient duration (at least 12-18 months), before entering the subsidy system and sheltered approaches]. However, although this is an appealing approach, there are no obvious examples in the current literature where the offering of both IPS and sheltered work has been successfully implemented. One evident drawback to sheltered employment is that the managers of these work programs try to find good workers and consequently people who could actually work in competitive jobs become trapped in sheltered work.

4.2 | Employment outcomes: Associations

In the current research, job acquisition is specifically higher in young adults with SMI (ie, schizophrenia and bipolar disorder) than in those with other mental disorders. This finding seems to confirm that IPS has its more significant effectiveness in the original target group of young patients for which this methodology was traditionally developed (Reme et al., 2018). This is an important and interesting result inasmuch as IPS model was proposed for people with SMI, but is now being adopted for other psychiatric disorders (Bond, Drake, & Pogue, 2019). However, employment rates appear to be independent from gender, age, years of education, duration of taking charge at CMHC, years of previous work and presence of social benefits. Differently, Metcalfe et al. (2018) showed that a recent work history and a less time on the social security rolls were associated with greater probability of employment. In this regards, our findings do not apparently support the perverse incentives of social security system and the risk-adverse of the benefit trap.

In the present study, days to first job appears to be related to gender, with young females starting work earlier than young males. Although the number of females was quite small in the subgroup of participants obtaining competitive jobs, this finding seems to contradict the well-known sexist discrimination that usually penalizes women in job search.

Moreover, we found that participants obtaining competitive employment with social benefits have longer job duration, with a significantly higher number of total days employed over the 3-year follow-up period. This result is probably related to the fact that social benefits in Italy are more often obtained by people with SMI, who also show the highest employment rate in this research.

Finally, differently to what reported by Metcalfe et al. (2018) in a recent longitudinal analysis comparing predictors of employment in participants provided by IPS service model and showing no age correlation, in the present study a significant positive association between younger age and a higher number of hours per week worked was found. This result clearly suggests that a job with a greater time commitment is preferably offered to younger adults,

even if probably with no or few years of previous work and with a less skilled labor force.

4.3 | Drop out rate

Our finding [ie, 12 (22%) of the original cohort of 54 clients dropped out] is substantially in line with the low drop out rates (~10%) reported in the most US IPS studies (Bond, Drake, & Becker, 2012), but definitely lower than that (43%) observed in a recent European IPS trial conducted in the Netherlands (Michon et al., 2014). Moreover, our result further supports that drop out rate significantly increases after a 12-month follow-up period. In resource-limited public mental health service, Burn and colleagues (2015) proposed to favour the adopting of time limits if a client does not find a job within 12-18 months (in order to avoid persisting with participants who are currently unlikely to succeed). However, further studies on time-limited IPS should be conducted (also in Italy) to better investigate the real effectiveness of this 'discharge' policy.

In the current research, the drop out condition is significantly associated with a lower number of years of education. This result is in line with what reported elsewhere in the mental health literature (such as the psychotherapy literature) and suggests that participants with poorer education could have a great and more urgent job expectation that, if frustrated, frequently leads to leave the rehabilitation pathway.

4.4 | Limitations

In the present study, several limitations should be acknowledged. Firstly, the subgroup of participants obtaining competitive jobs was quite small to draw definitive conclusions. Thus, further studies in larger samples are needed. Moreover, another weakness is the lack of a control group, as well as the sample attrition by the end of the 3-year follow-up period.

Secondly, in the current research, we have focused exclusively on competitive jobs. The impact of supported employment on non-vocational measures of psychiatric symptoms and quality of life has not been evaluated. Moreover, measures of job quality are needed, as are measures of job satisfaction.

Thirdly, in the present study, measuring job tenure has been problematic because some participants are employed at the end of follow-up (ie, some job tenure periods are right-censored). In this regards, according to Bond, Peterson, et al. (2012), perhaps the literature consistently underestimates job tenure. The optimal solution would be to conduct long-term follow-up trials.

Finally, despite the evidence that our rates of competitive employment are overall higher than those reported in other European studies, one explanation could relate to our somewhat different inclusion criteria. Indeed, we included a broader group of young participants by allowing not only patients with a psychotic or a bipolar disorder like in most previous IPS studies. Similarly, differences in drop out rates are probably partly because of variations in study recruitment procedures.

4.5 | Conclusion

This study documents the feasibility of introducing the IPS approach as new rehabilitation service model in a traditional public mental health care system in Italy, especially for young adult target populations (Lorenzo et al., 2018; Pelizza et al., 2019). A nationwide introduction of IPS not only might lead to beneficial changes for young clients, but also might precipitate system changes towards the development of a recovery-oriented system. Moreover, this research adds evidence to the growing literature on the positive effect of IPS in promoting employment among young people with SMI, also in Italy, where there is a socioeconomic climate that differs and is more protective than that in the US. However, future studies on subjective outcomes, process evaluations and cost-effectiveness are needed.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ETHICAL STANDARDS

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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