



Original Article

Resumption of work or studies after first-episode psychosis: the impact of vocational case management

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Abstract

Background: Psychosis compromises the educational and professional projects of young patients. Vocational case management (VCM) offers comprehensive support for reintegration into work or studies within an early psychosis intervention programme.

Aims: To evaluate the effectiveness of VCM in resumption of work or school and to identify the predictive factors of occupational outcome.

Methods: This descriptive study focused on occupational status of an early psychosis cohort during the first 5 years of VCM.

Results: 56.6% of 97 study subjects had a diagnosis of schizophrenia, 32%

had type I bipolar disorder with psychotic features. 68% held a productive occupation the year prior to admission, and 47.4% at admission. The occupational rate rose from 57.1% at 12 months to over 70% after 48 months. 65.6% maintained or improved their occupational status. Most subjects held competitive employment, and the employment rate was similar to that of the general population. Prior employment and non-affective psychosis were associated with better outcome.

Conclusion: The majority of individuals suffering from early psychosis resume productive activity rapidly when offered VCM within an early intervention programme during a follow-up period of up to 5 years.

Key words: bipolar disorder, first-episode psychosis, schizophrenia, supported employment, vocational rehabilitation.

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Received 7 March 2012; accepted 16 September 2012

INTRODUCTION

Work is a priority for people with mental disorders whatever the diagnosis or illness severity.^{1,2} 90% of mental health service users are interested in working, whereas the remaining 10% have no such interest because of their illness, medication, discrimination or loss of benefits.² Despite the desire to work, subjects with psychosis have the lowest employment rate compared to all other disability groups.³ During the last decade, employment rates among people with schizophrenia were between 4% to 27% in different countries² and between 15% to 25% in people with severe mental illness in the USA. Supported employment (SE) and especially individual placement and support (IPS) are more effective

than other vocational rehabilitation methods in helping people with severe mental illness obtain competitive employment.⁴ Although the American Psychiatric Association guidelines propose that SE should be available to schizophrenia patients,⁵ few IPS programmes are currently in place in clinical settings. One recent randomized controlled trial determined that IPS programmes were effective when added to specialized first-episode psychosis (FEP) services,⁶ compared to referral to specialized external placement agencies for mental health patients: subjects were more likely to acquire a job, to work more hours per week, to maintain their jobs and to become less dependent on welfare benefits. Other studies have disclosed the importance and feasibility of extending vocational services to include

education since, in that age group, schooling is often a main goal and offers prospects for better job opportunities.⁷⁻⁹

INTERVENTION PROPOSED

Clinique Jeunes Adultes Psychotiques (JAP), an early psychosis intervention programme operating since 1999 within the Centre hospitalier de l'Université de Montréal (CHUM), provides comprehensive 5-year treatment for young adults (18–30 years). Its main goal is to help people return to productive activities as early as possible. Since we did not have the resources to hire a vocational specialist to implement IPS and we wanted to integrate vocational support within our first-episode programme, we created vocational case management (VCM), a model of case management 'adopting' IPS principles. VCM differs from regular early intervention (EI) case management as its main objective is to assist clients in resuming productive activities within the treatment of psychosis. For example, work is done on managing symptoms or on compliance with medication to help patients reach their goal of retaining a job. Vocational case managers assist clients through all necessary steps to obtain and maintain a productive occupation (writing a résumé, negotiating work conditions or study accommodations, etc.). All interventions (psychiatric follow up, individual VCM, group therapies) gradually target that goal. More than a treatment objective, acquiring a job or going back to school is considered a treatment modality. Observations in the group programme and individual follow up allow clinicians and patients to monitor and improve the ability needed to resume productive activities, even during acute episodes, when possible. Clients are offered the group programme for a few weeks (less than 8 weeks on average) right after admission to the clinic, even if they are still hospitalized, and will usually continue until they begin a productive occupation. The group programme contains a psycho-education group, an occupational therapy workshop, sports activities, cognitive-behavioural therapy, a motivational group to combat substance abuse comorbidity and a preparatory group for return to work/studies (discussing issues related to getting or keeping a job, rights and responsibilities, practising job interviews, etc.). Weekly team meetings allow group therapists, psychiatrists and case managers to share information, modify goals, if necessary, and always ensure that adherence to vocational outcomes remains the core purpose of treatment. All case managers participate

as co-therapists in the group programme and are entirely responsible for their clients' vocational support. Regular peer group supervision of vocational case managers is provided, and senior case managers also offer individual assistance to junior ones, if needed on a daily basis. Clients (about 10% of our sample) who do not find work rapidly with VCM assistance (within 3 to 6 months) can be referred to an external agency worker involved in the clinic. This worker comes to the clinic at least once a month to consult clients and participate in team meetings.

OBJECTIVES

1. Evaluate the effectiveness of VCM offered within FEP services to help young people return to work or school.
2. Describe which factors influence occupational profile.

METHOD

Participants

This descriptive study included all subjects admitted to Clinique JAP between October 2002 and July 2006. The catchment area comprises part of downtown Montreal, Canada, with a heterogeneous population that averages 185 000 persons. It covers some of Montreal's poorest areas and some middle class and student areas.

Clinique JAP offers services to all CHUM patients meeting the following inclusion criteria: age between 18 and 30 years at admission, affective or non-affective psychosis (main diagnosis) and untreated or treated for less than 1 year for psychosis.

Data collection

Data collected by file review included independent variables (diagnosis, sex, age at admission, and occupational status before and at admission) and dependent variables (occupational status at different time points). Diagnoses were established with file information by best estimate consensus according to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* by one or two psychiatrist(s) and one resident. The treating psychiatrist or case manager was consulted if information was insufficient. To preserve confidentiality, no nominal data were used, and no

subject was contacted for the study, which was approved by the CHUM research ethics and scientific committees.

Definitions

Full-time jobs were defined as working at least 30 h per week. Full-time study was defined as taking four university courses, obtaining 12 credits per session or attending adult high school courses for more than 4 days per week. Regular work was considered as competitive employment that paid at least minimum wages. Non-mental health rehabilitation programmes referred to programmes open to all individuals having difficulties integrating into the work market, whereas mental health rehabilitation programmes referred to such programmes that specifically support mentally ill individuals. Sheltered work corresponded to specific sponsored jobs adapted to integrate people with deficits secondary to their illness.

Statistical analyses

Statistical analyses were undertaken with the Statistical Package for Social Sciences software (version 16.0; SPSS Inc., Chicago, IL, USA) under supervision by a statistician. Descriptive analyses disclosed the evolution of occupational status at various time points.

Chi-squared tests assessed the impact of each predictive factor (sex, diagnosis, premorbid occupational status) on occupational status at different time points and *t*-tests examined the effect of age at admission. For analytical purposes (because some groups were too small), we assembled subjects into two diagnostic subgroups: schizophrenia spectrum psychosis (SSP) and non-schizophrenic affective psychosis (NSAP). Those with psychosis not otherwise specified were classified on an individual basis in the most appropriate subgroup.

McNemar tests determined whether the evolution of occupational status between admission and every time point (between admission and 2 years, between admission and 4 years) was statistically significant. To test if the evolution of occupational status between time points was significant, patients were separated into four evolution profiles: those who always had an occupation, those who deteriorated (lost their occupation), those who never had an occupation and those who improved (obtained a new occupation during follow up). These proportions were compared by χ^2 tests.

RESULTS

Of the 136 subjects admitted to Clinique JAP between October 2002 and July 2006, 114 met the inclusion criteria. The others were excluded because of misdiagnosis or had received more than 1 year of previous treatment.

Of these 114 subjects, 97 were included, whereas the remaining 17 subjects (followed at the clinic for less than 1 year (median of 4.3 months)) were excluded since no effect on occupational status could be attributed to the VCM programme. These 17 excluded subjects did not differ in sociodemographic data or predictive variables from the rest of the sample, nor did their occupational status change for the duration of their follow up (at 3 and 6 months).

Of the 97 subjects included, 13.4% were lost to follow up at 18 months, 20.6% at 24 months, 25.8% at 36 months and 30.9% at 48 months. At the end of the study (60 months), 60% of subjects were still followed at the clinic, one patient died, 11% were transferred to other services (mainly because they were stable and functioning well enough to be followed by their family doctor or because they had moved out of the Montreal area), and 27.6% were lost to follow up. 56% of patients were grouped in the SSP group (including schizophrenia (45%) and schizo-affective disorder (10%)) and 44% in the NSAP group (type I bipolar disorder with psychotic features (32%), psychotic depression 8%). Mean age at admission was 23.5 years, and 78.3% were male (no statistical difference between both diagnostic groups).

82% of subjects had previous work experience. Figure 1 tracks the evolution of occupational status at different time points. From 68% of subjects having a productive occupation (work, studies, stay-at-home mothers), at some point during the year prior to admission, the occupation level dropped to 47% the month before admission and remained stable until admission. By month 3, the level of productive occupation returned to the admission level; some subjects never stopped working, but most of them resumed work after a short leave. Among those returning to productive activity, 76% resumed their activity by month 6. Productive occupation increased gradually to a greater proportion from month 6 until the end of the study, reaching the premorbid level at 2 years post-admission and improving further with time.

Figure 2 illustrates that the majority of subjects worked full time except at 3 months when the proportion of part time workers was greater. After 36 months of follow up, at least half of the sample had a full-time job.

FIGURE 1. Productive occupation in early psychosis subjects. (□) No, (■) Work and studies, (■) Study, (■) Work. Compared to admission (McNemar test): * $P < 0.0001$, ** $P < 0.05$, *** $P = 0.058$.

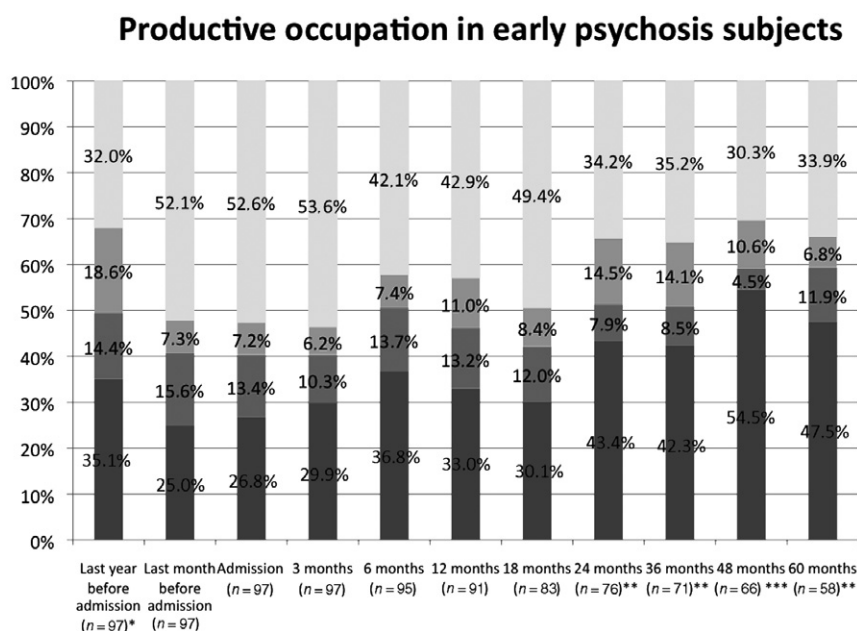


FIGURE 2. Employment in first-episode psychosis. (■) Full time, (■) Part time, (□) None.

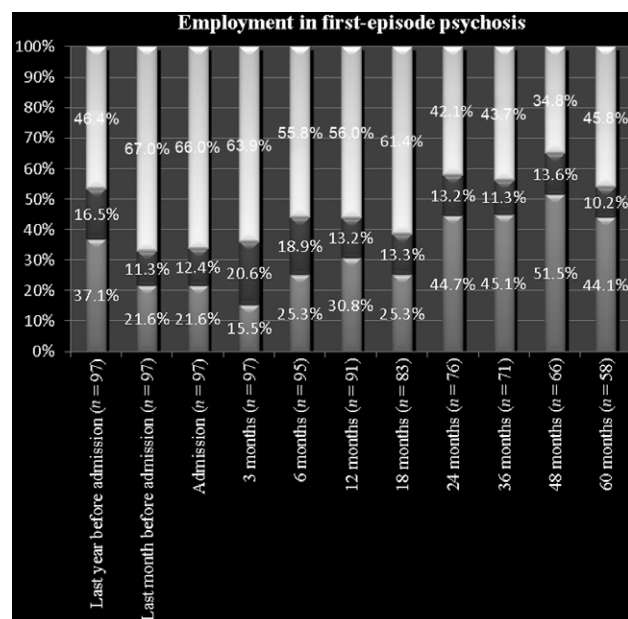


Figure 3 summarizes the type of job held by FEP patients during their follow up. Throughout the study, more than 80% of those working had obtained competitive employment, with very few needing specific mental health work rehabilitation programmes.

The proportion of subjects studying was low and never reached the premorbid level (Fig. 4). Most of

them were full-time students and, from year 1, 10–18% of the sample was working at the same time (Fig. 1).

Of those still followed at year 4 ($n = 66$), 34.8% saw their occupational status improve, 34.8% were able to keep their occupation for the entire study period, 13.6% remained without a productive occupation since admission and 16.7% deteriorated. Of those who never held a productive occupation during follow up, very few wanted one, despite encouragement from the treating team, mostly because they had no interest or they considered themselves unable to work (because of residual symptoms, including positive symptoms, cognitive deficits, severe anxiety and low stress resistance). The few individuals who did not succeed in working had very severe cognitive deficits, chronic treatment-resistant disorganization, agitation and significant positive and negative treatment-resistant symptoms.

PREDICTORS OF OUTCOME

Having had work experience any time before admission was not linked to any outcome measure. However, having had an occupation at admission, as well as over the month and year before, was strongly coupled with occupational outcome during early follow up (first 12 months). This association weakened as follow up progressed and

FIGURE 3. Type of work subjects treated with VCM within an early intervention service. (■) Regular work, (■) Non-mental health rehabilitation program, (■) Adapted work, (■) Mental health rehabilitation program, (■) Motherhood.

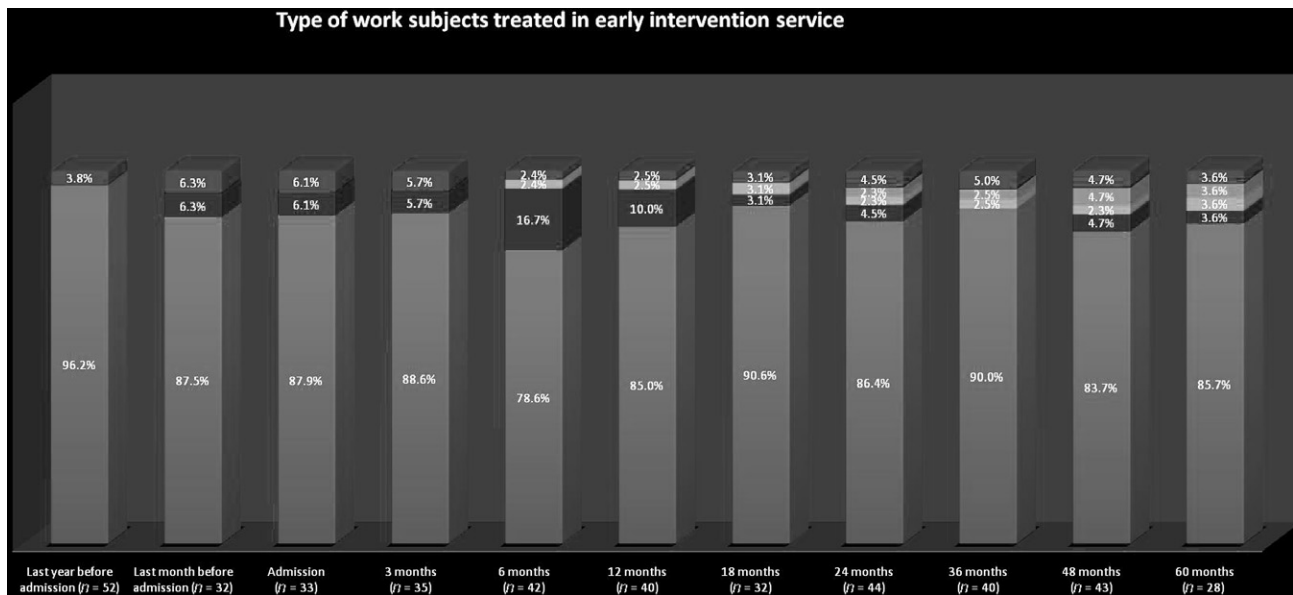
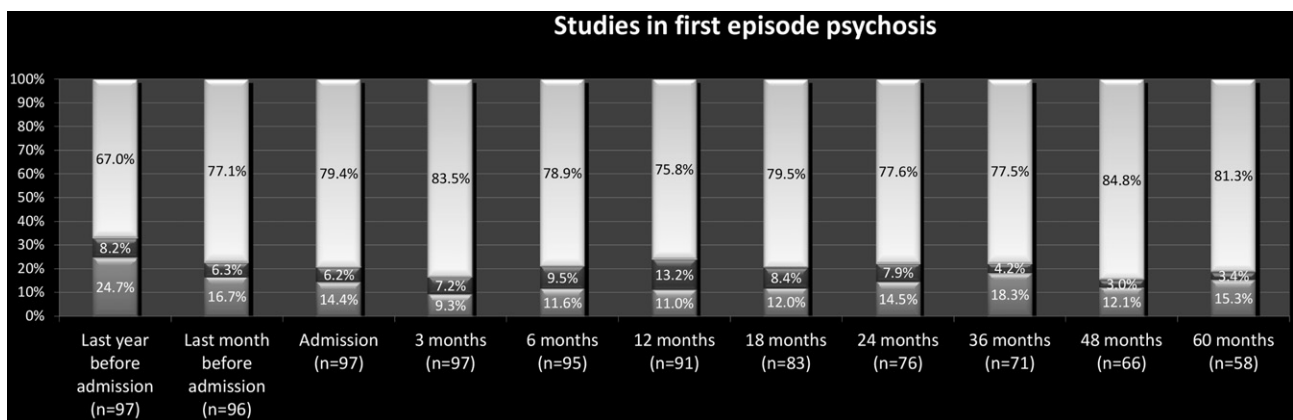


FIGURE 4. Studies in first-episode psychosis. (■) No, (■) Part time, (■) Full time.

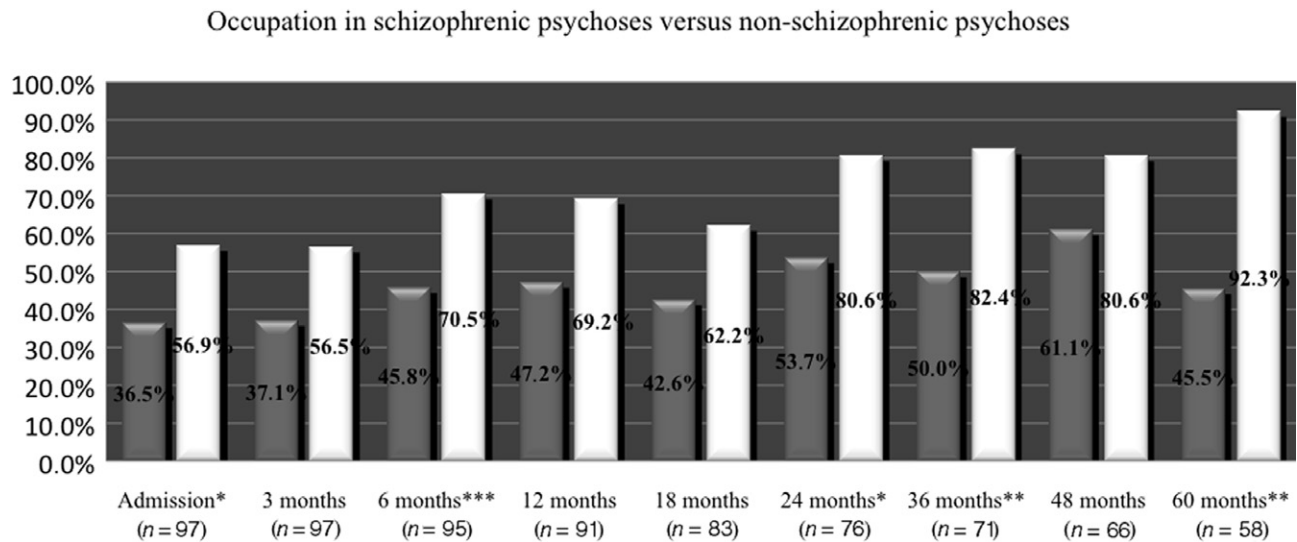


was no longer significant after the first years. For example, working during the previous year before admission was associated with productive occupation at 3 months ($\chi^2 = 45.382$, d.f. = 9, $P > 0.0001$) until 36 months ($\chi^2 = 20.334$, d.f. = 9, $P = 0.016$); working during the month before admission was associated with productive occupation at 3 months ($\chi^2 = 52.962$, d.f. = 9, $P < 0.0001$) until 24 months ($\chi^2 = 19.889$, d.f. = 9, $P = 0.019$); and working at admission was correlated with occupation at 3 months ($\chi^2 = 51.413$, d.f. = 9, $P < 0.0001$) until 18 months ($\chi^2 = 22.848$, d.f. = 9, $P = 0.007$).

Figure 5 reports productive occupation rates between the two diagnostic groups. No statistical

difference was observed in early follow up (before 24 months) between the two groups. However, NSAP, compared to SSP, was associated with productive occupation at 24 months ($\chi^2 = 8188$, d.f. = 3, $P = 0.042$), at 36 months ($\chi^2 = 11.459$, d.f. = 3, $P = 0.009$) and at 60 months ($\chi^2 = 14.749$, d.f. = 3, $P = 0.002$). Nevertheless, about 50% of patients suffering from schizophrenia also held a productive occupation throughout follow up (definitely higher than rates reported in the literature). Moreover, the diagnostic group did not predict occupational status evolution between admission and 4-year outcome. No other factor (sex, age at admission or having had previous work experience) predicted occupational outcome.

FIGURE 5. Occupation in schizophrenic psychoses versus non-schizophrenic psychoses. (■) Schizophrenic psychoses, (□) Non-schizophrenic psychoses. * $P < 0.05$, ** $P < 0.01$, *** $P = 0.058$.



DISCUSSION

Early detection probably helps prevent the consequences of untreated psychosis, such as job loss, since interventions will occur before disability reaches its peak or before functional impairment affects work performance (justifying being fired) or before patients quit their jobs (either for delusional reasons or because they are unable to fulfil job or study requirements). It has already been observed that FEP patients employment rates at admission are higher than those in more chronic schizophrenia populations.^{10–12} However, these rates decline significantly during early follow up (first 1–5 years) when no specific intervention addresses occupational issues. Our results greatly differ as occupational rates improved during follow up and are concordant with a report that found comparable results supporting the effectiveness of adding vocational interventions to FEP services.¹³

During follow up, high occupational levels could be explained by the many incentives to return to work. 61% of our subjects were living independently at admission, whereas the majority of subjects in other FEP samples were residing with their parents (54% to 70%).^{14–16} We encouraged families to help their relatives become financially independent as soon as possible, to motivate them to get a job, and we avoided signing long-term work disability welfare certificates, unless the disability had been demonstrated by many failed treatment attempts. Such certificates were determined to be a negative predictor for obtaining a job¹⁷ and they sent the

‘ambiguous’ message that we consider people with psychosis as being unable to work.

We hypothesize that VCM is the main factor responsible for the quick return to work and the high levels of productive activity since all SE principles are seen in our programme. The integration of rehabilitation and mental health teams allows patients to see only one worker/team (with whom a trusting therapeutic relationship develops) who offers specific, individualized and time-unlimited support for vocational recovery, as well as mental health care. Consequently, there is no delay in initiating job searches compared to referrals to an external service or even to someone else in the same institution. Also, VCM focuses primarily on competitive employment, and the type of jobs/studies searched is rooted in consumer preferences.

Even if psychosis interrupts their vocational development for a relatively short time period (a few months), the occupational profiles of young people with psychosis do not differ dramatically from those of the general population, in comparison to those with chronic illness, and therefore, do not become such a major obstacle in getting a job.

The similarity of our sample’s employment rate (up to 65.1%) to that of Montreal’s general population¹⁶ of the same age (69.5%) seems surprising considering their lower education level, their severe mental illnesses and the usual perception about psychotic patients’ capacity to work. Moreover, 50% to 70% of studying patients were also working compared to 62% of their age group. However, we could hypothesize that a proportion of subjects lost to

follow up (about 40% at the end of the follow-up period) had a poor vocational outcome, possibly biasing our results positively.

Levels of employment among our sample's schizophrenia patients, although lower than those of the other diagnostic group, are still quite high when compared to patients not receiving any specific vocational help.^{1,2}

The proportion of patients studying after admission to our FEP clinic diminished throughout the follow-up period, possibly reflecting that most people in their twenties will finish or end their studies to obtain a remunerative occupation. Still, comparing our patients' education levels¹⁵ with those of the general Montreal population¹⁸ highlights major differences (e.g. 29% of patients had no diploma at admission to the clinic, 36% had a high school certificate, 15% had a college diploma and 18% had completed university compared to 18%, 31%, 19% and 32%, respectively, in the general population). Higher education levels are related to better employment access, salaries, work conditions, quality and type of jobs, and the possibility of improving socioeconomically.¹⁹

Limitations

Our findings indicate that VCM makes a positive difference in the occupational prognosis of FEP patients. However, we could not identify 'active elements' and, owing to the lack of a control group, VCM's specific impact could not be distinguished from that of EI. Also, our methodology did not allow us to evaluate job stability, salaries as well as how subjects pursued their vocational development. Nevertheless, those who eventually found a job at some time point seemed to stay employed. Finally, monitoring occupational status at distinct time points could have made us overestimate the delays in returning to work or study.

Clinical and research implications

Psychosis arises in young people's development period when identity, including vocational choices, consolidates. Therefore, it interferes with normal life experiences that allow patients to learn about work market requirements, and identify job interests and life goals. Some patients may have to grieve over vocational projects and choose new ones adapted to their limitations. Ambivalence, hopelessness and low self-esteem have to be targeted early. Positive experiences, including brief-duration pre-vocational activities or work reintegration programmes, might be helpful in attempting new expe-

riences despite their 'fear of failure', or in achieving success, since some patients will have faced many failed trials due to their illness or unrealistic work market expectations.

Further research should be undertaken to replicate these results with a more robust study design, such as randomized controlled trials comparing regular EI to VCM. Although some variables linked to favourable occupational prognosis were identified, further research should also discern factors associated with failure of VCM to help some FEP patients maintain their job or educational project and lead to the development of interventions for refractory patients.

CONCLUSION

Although Killackey *et al.*⁶ have already shown that adding IPS to specialized FEP services improves occupational prognosis, our study indicates that VCM could be another model of care to enhance vocational outcomes in FEP.

VCM in FEP clinics certainly helps young people to invest themselves in their treatment. Retention and compliance could probably increase since VCM gives very concrete meaning to all these treatments, and contributes to the reduction of stigma by normalizing young people's daily life and promoting recovery in a social role. Not wanting to work or study at such a young age is often linked with loss of self-confidence or internalized stigma, and has to be worked on within psychological interventions.

This philosophy of treatment considers the person as a whole with his/her abilities and difficulties (including illness) instead of illness being the main focus of intervention. More than offering vocational aid to those who want to work, we suggest that vocational rehabilitation should be part of standard care for FEP patients and offered as systematically as other interventions (e.g. medication); it could give a powerful message of hope and improve self-confidence as well as self-efficacy.

Unemployment is responsible for more than half of the total costs of psychotic illness and is associated with poor autonomy in life functioning, poor social and economic inclusion, and severe symptomatology. The present study supports the International First Episode Vocational Recovery Group consensus statement emphasizing the rights of young people with psychosis to pursue employment, education and training and the importance of functional recovery in the treatment of early psychosis.²⁰

ACKNOWLEDGEMENTS

The authors thank all Clinique JAP patients and workers who made this research project possible.

REFERENCES

1. Crowther R, Marshall M, Bond G, Huxley P. Vocational rehabilitation for people with severe mental illness. *Cochrane Database Syst Rev* 2001; (2): CD003080.
2. Marwaha S, Johnson S. Schizophrenia and employment – a review. *Soc Psychiatry Psychiatr Epidemiol* 2004; **39**: 337–49.
3. Killackey E, Jackson H, Gleeson J, Hickie IB, McGorry PD. Exciting career opportunity beckons! Early intervention and vocational rehabilitation in first-episode psychosis: employing cautious optimism. *Aust N Z J Psychiatry* 2006; **40**: 951–62.
4. Twamley E, Jeste D, Lehman A. Vocational rehabilitation in schizophrenia and other psychotic disorders: a literature review and meta-analysis of randomized controlled trials. *J Nerv Ment Dis* 2003; **191**: 515–23.
5. Lehman AF, Lieberman J, Dixon L et al. Practice guideline for the treatment of patients with schizophrenia, second edition. *Am J Psychiatry* 2005; **161** (2): 1–56.
6. Killackey E, Jackson HJ, McGorry PD. Vocational intervention in first-episode psychosis: individual placement and support vs. treatment as usual. *Br J Psychiatry* 2008; **193**: 114–20.
7. Rinaldi M, McNeil K, Firn M, Koletsi M, Perkins R, Swaran SP. What are the benefits of evidence-based supported employment for patients with first-episode psychosis? *Psych Bull* 2004; **28**: 281–4.
8. Nuechterlein K, Subotnik K, Turner L, Ventura J, Becker DR, Drake RE. Individual placement and support for individuals with recent-onset schizophrenia: integrating supported education and supported employment. *Psychiatr Rehabil J* 2008; **31**: 340–9.
9. Waghorn G, Chant D, White P, Whiteford H. Delineating disability, labour force participation and employment restrictions among persons with psychosis. *Acta Psychiatr Scand* 2004; **109**: 279–88.
10. Birchwood M, Cochrane R, Macmillan F, Copestake S, Kucharska J, Carriss M. The influence of ethnicity and family structure on relapse in first-episode schizophrenia. A comparison of Asian, Afro-Caribbean, and white patients. *Br J Psychiatry* 1992; **161**: 783–90.
11. Johnstone EC, MacMillan JF, Frith CD, Benn DK, Crow TJ. Further investigation of the predictors of outcome following first schizophrenic episodes. *Br J Psychiatry* 1990; **157**: 182–9.
12. Larsen TK, Melle I, Auestad B et al. Early detection of psychosis: positive effects on 5-year outcome. *Psychol Med* 2011; **41**: 1461–9.
13. Major BS, Hinton MF, Flint A, Chalmers-Brown A, McLoughlin K, Johnson S. Evidence of the effectiveness of a specialist vocational intervention following first episode psychosis: a naturalistic prospective cohort study. *Soc Psychiatry Psychiatr Epidemiol* 2010 (1); **45**: 1–8.
14. Conus P, Lambert M, Eiden P et al. First episode psychosis outcome study (FEPOS): description at admission. *Acta Psychiatr Scand* 2002; **106** (413): 46.
15. Ouellet-Plamondon C, Nicole L, Abdel-Baki A et al. Longitudinal study of first-episode psychosis within the Université de Montréal network: 3 years outcome. *Schizophr Res* 2010; **117**: 399–400.
16. Gafoor R, Nitsh D, McCrone P et al. Effects of early intervention on 5-year outcome in non-affective psychosis. *Br J Psychiatry* 2010; **196**: 372–6.
17. Krupa T. Interventions to improve employment outcomes for workers who experience mental illness. *Can J Psychiatry* 2007; **52**: 339–45.
18. Statistics Canada. Montreal, Quebec (Code 2466023) (table). 2006 Community Profiles. In: Statistics Canada Catalogue No. 92-591-XWE. Ottawa, 2007.
19. Waghorn G. Earning or learning among young people with psychiatric disorders: a population-based analysis. *Schizophr Res* 2006; **86** (Suppl. 1): 145.
20. International First Episode Vocational Recovery (iFEVR) Group. Meaningful lives: supporting young people with psychosis in education, training and employment: an international consensus statement. *Early Interv Psychiatry* 2010; **4**: 323–6.