

Clinical and Non-Clinical Predictors of Vocational Recovery for Australians with Psychotic Disorders

Is vocational recovery possible for people with psychotic disorders?

Diagnostic criteria in earlier versions of the DSM, have defined psychotic disorders in terms of illness outcomes such as impaired occupational functioning.

However, long term outcome studies over 32 years (Harding et al, 1987) found that half to two thirds of the most severely impaired patients evolved into various degrees of competent productive functioning. This finding implies that neither continuous deterioration, nor unemployment, are necessary diagnostic consequences of having a psychotic disorder.

Vocational prospects

- Harding et al. (1987): heterogeneity of course and outcome characterise schizophrenia.
- Although the finer prognostic indicators of psychotic disorders continue to be debated, wide agreement exists as to the differential heterogeneity of course and outcome for all psychotic disorders.
- Advances in the treatment of psychotic disorders: reduced side effects of medication; community-based care; and support to improve independent living skills; have all increased the demand for vocational assistance from consumers and their families or carers.

Vocational recovery is more likely when:

- The acute phase of illness is overcome;
- Employment goals include part-time employment, support is permitted, and agreement to part employer-disclosure is obtained (but this is not essential);
- Vocational rehabilitation assistance is available in the local area;
- Net financial benefits for working exceed income support alone;
- An understanding of the meaning and value of employment is present. This is more important than specific work motivation, as the latter is often impaired by psychotic symptoms; and
- Severe cognitive deficits or high needs for independent living assistance are not present. If so, non-competitive or unpaid work can be considered as an alternative goal (based largely on clinical experience).

**Career problems are normalising experiences
Training can be hard to find
Some people need help to secure a job
Some people need intense, vocational counselling**

Vocational rehabilitation services in Australia

- Disability Employment services: CRS Australia, Open-Employment Services, Business Services, Work-crews;
- Jobnetwork, Jobclubs, Work-for-Dole schemes, Voluntary work;
- Community Mental Health Service coordinated programs;
- Specialised and Generic units (where all types of disabilities are assisted);
- A range of vocational and psycho-social treatment interventions may be provided at each stage of vocational recovery;

- Staff training and expertise profiles vary across and within services;
- Service limitations can be due to systemic issues, funding models and local factors; and
- Success rates vary but little reliable Australian data are readily accessible. (For further information, see Waghorn & King, 1999.)

Assumptions about vocational recovery:

Clinical and vocational staff sometimes assume vocational recovery prospects decline with:

- The presence of positive and negative symptoms;
- Severity of illness;

- Lack of insight;
- Problems with substance use;
- Early onset of illness;
- Current treatment status;
- Number and duration of prior hospital admissions and
- Poor work history, both pre and post illness (based on clinical experience).

This situation is compounded by conflicting overseas findings and a lack of Australian studies.

Reviews of the international literature reveal:

- That work history, premorbid functioning and social skills are the most consistent predictors of employment outcomes, identified in a recent review of controlled studies (Tsang et al, 2000);
- Diagnostic category and psychiatric symptoms are inconsistent predictors;
- Mixed results were also found for cognitive functioning, substance abuse, previous hospitalisation, pre-morbid occupational performance, age, sex, ethnicity, marital status and residential area;
- Age of onset, family psychiatric history, ratings of illness severity, and available employment assistance, were predictive in single studies only; and
- Education was a consistent non-predictor.

(Most studies reviewed were conducted in the USA labour market.)

Australian Data

- No reliable, valid and representative data on vocational recovery for Australians with psychotic disorders were available prior to the 1997-98 National Mental Health Survey of Low Prevalence (Psychotic) Disorders (Jablensky et al, 1999a; 1999b);
- This data set enabled 22 candidate predictors, identified largely from recent literature reviews, to be investigated in a large-scale prevalence survey;
- Although cross-sectional and not prospective, the size and quality of this data set exceeds that of most studies published to date in this field; and
- The following findings are based on work in progress by the investigators (two papers submitted, one accepted, one still under review).

The sample and method

- Initially 5,710 persons who had recently been in contact with mental health services were screened for psychosis;
- From the 3,800 persons screening positive, in-depth interviews were conducted with 980 randomly selected persons in four geographically representative areas of Australia;
- Trained clinical staff conducted a structured clinical interview using the Diagnostic Interview for Psychosis (Jablensky et al, 1999a) incorporating OPCRIT (McGuffin et al, 1991) and SCAN (Wing et al, 1990) items;
- Data were retained from those who achieved a DSM III R diagnosis of a psychotic disorder, who were either outpatients or current inpatients of 8 weeks or less duration, and who were unemployed or employed. Those reporting an occupational status as housework, studying, retired or unknown, were classified as non-labour force participants;
- The final analyses were based on 782 persons employed or unemployed persons with a DSM III R psychotic disorder; and
- The sample represents a source of vocational rehabilitation referrals.

The analyses

- Four aspects of vocational recovery were investigated, current employment (part-time or full-time versus unemployed), durable employment (3 months continuous versus 2 or less), self reported work performance in the previous year (no dysfunction versus obvious or severe), and absenteeism (5 or more weeks off work versus at most 4 weeks in the past 12 months);
- Four multiple logistic regression models were used to calculate the predictive effects of 22 independent variables on current and durable employment (n=782), work performance (n=247), and absenteeism (n=254); and
- We included a longitudinal indicator of severity of illness - this was already present in the data set: 'self-reported course of illness'.
- Self-reported course of illness - this variable had five levels:
 1. Single episode with good recovery;
 2. Multiple episodes with good recovery;
 3. Multiple episodes with partial recovery;
 4. Chronic illness with little deterioration; and
 5. Chronic illness with clear deterioration.
- Participants were asked to select the diagram which best represented their lifetime course of illness. Interviewers were permitted to modify the selection if the information collected indicated another course selection was more accurate.

Unemployment rates in the study

- Persons with schizophrenia aged 17-65 years - 83.7%;
- Persons with all psychotic disorders aged 17-65 years - 77.8%; and
- Compared to all Australians in July 1997 aged 17-64 years - 7.9%.

Australian Bureau of Statistics, 1997; 1998a; 1998b; 1999

Australian predictors of current employment for people with psychotic disorders

- Self-reported course of illness (ORs 0.2 to 0.4, significant within 95% CI)
- Education and skills (ORs from 0.26, significant within 95% CI); and
- Marital status (OR 0.53, significant within 95% CI).

Australian predictors of durable employment in the previous year

- Self reported course of illness;
- DSM III R diagnostic group;
- Lifetime diagnosis of cannabis abuse/dependence;
- Education and skills;
- Age;
- Marital status;
- Premorbid work adjustment; and
- Successful use of a vocational service in the previous year (CES in 1997).

Australian predictors of work performance and absenteeism

- Number of inpatient admissions in the past year (predicted both work performance - OR 2.5; and absenteeism - OR 7.2); and
- Age (those aged 45-65 years had 2.5 times greater odds of good work performance but had 3.6 times greater odds of not keeping employment compared to those aged 25-34 years).

Notable non-predictors

- Negative formal thought disorder;

- Participation in Psychiatric rehabilitation;
- Gender;
- Ethnicity;
- Lack of insight;
- Age at onset (predicted work performance, but appeared confounded by diagnostic category);
- Positive thought disorder;
- Impairment due to medication;
- Lifetime diagnosis of alcohol abuse;
- Language other than English spoken at home;
- Premorbid social adjustment;
- Current treatment status;
- Family history of schizophrenia (confounded by diagnosis);
- Family history of psychiatric disorder other than schizophrenia (confounded by diagnosis); and
- Age of onset (associations with diagnostic category seem to account for the link to durable employment).

Implications for health professionals

- When validated, self-reported course of illness at up to five levels may predict intensity of vocational assistance needs. Those with more severe illness courses should be referred to programs offering more intensive assistance;
- Education and skills appear particularly important in Australia. Support may be needed for people wanting to complete a secondary school education; and
- Predictors may be combined to indicate people likely to need more intensive assistance at each of several stages of vocational recovery.

Implications for vocational professionals

- Other known predictors are work history, premorbid functioning and work-related social skills;
- This study adds several new predictors on the basis of Australian evidence. While further validation studies are undertaken, these variables can be collected and monitored in vocational settings; and
- In the absence of better individual-level information these variables can be used to set initial assistance levels, or as a basis for discussing assistance options with clients.

Implications for researchers

- The reliability and validity of 'self-reported course of illness' warrants further investigation as a potentially practical predictor of vocational recovery;
- Further questions arise such as: are clinician ratings any better than self-reports? and
- Age and education may be labour market dependent. Further longitudinal studies between and within labour markets are needed.

The investigators

Geoff Waghorn, Mental Health Policy and Services, Queensland Centre for Schizophrenia Research (QCSR). PhD candidate, The University of Queensland. Supervisor: Dr Robert King. Tel.: (07) 3271 8810 or e-mail geoffw@wph.uq.edu.au

Dr David Chant (Statistician, QCSR);

Professor Harvey Whiteford, Kratzmann Professor of Psychiatry, The University of Queensland and consultant to the Human Development Network of the World Bank.

Look out for a publication on this topic in the Journal of Vocational Rehabilitation, in the next 6-8 months.

Acknowledgements

We wish to thank Professor John McGrath, Co-director of QCSR, for comments on early drafts of the papers from which these slides are drawn.

This study has been conducted with the ethics approval of the University of Western Australia Human Research Ethics Committee;

We also wish to thank the Research and Publication Committee of the Low Prevalence (Psychotic) Disorders Study Group, for providing supervised access to CURF data, on which this presentation is based.