SUPPORTED EMPLOYMENT:
Generating competitive employment for adults living with Schizophrenia

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With the assistance of Dr. Mary Russell
Context

• Why this review?
• Disadvantage for people living with Schizophrenia

Previous research on Supported Employment

• Kirch et al. 2003
• Cochrane review- Kinoshita et al. 2013

The research question

Our systematic review

• Best evidence summary and clinical implications

Conclusions
Second-year Masters of Occupational Therapy (IMOG) subject, EBP-GE.

- Intensive subject
- Generate an effectiveness question
- Conduct a systematic review

- Luisa’s work role at Centrelink
- Future effectiveness questions from industry…
**Unemployed population**

- Mental illness: 19%
- General population: 81%

Sane Australia 2014

**Have a mental illness**

- Workforce participation: 29%
- Not engaged in workforce: 71%

ABS 2012

**Have schizophrenia**

- Employed: 89%
- Unemployed: 11%

Marwaha et al. 2007
• Barriers to employment (Couture et al. 2006; Kirsh et al. 2004; Tsang et al. 2010).
  • Functional skills (social-interpersonal/cognitive/emotional)
  • Previous work history
  • Age*
  • Negative symptoms of Schizophrenia
  • Stigma (self and community locus)
Kirsh et al. 2005

OT best practice: program characteristics that influence vocational outcomes

39 studies; 12 characteristics identified as having a positive effect including:

• Employment-specific services or specialist on the team
• Focus on competitive employment
• Stable, ongoing supports
• Rapid placement and on the job training in lieu of pre-voc training
• Problem-solving approaches to supporting social interactions, including feedback and training in problem solving and coping
• A multi-D team approach to service delivery
What is Supported Employment?

- Competitive employment the goal
- Rapid job placement
- No minimum standard for inclusion
- On-the-job training, not pre-vocational
- Integrated vocational and mental health support services
- Support is indefinite and individualised
- Emphasis on consumer choice

- Implemented in lieu of traditional vocational rehabilitation
Kinoshita et al. 2013

Cochrane review investigating the effectiveness of SE compared to other approaches to VR or TAU

14 RCTs analysed. People with mental illness receiving SE services experienced:

• Greater likelihood of being employed in competitive jobs
• Longer competitive employment and employment overall
• Finding jobs quickly

Conclusions:
Thumbs up for Supported Employment, but-
• Bias in RCTs reduces their quality and confidence in conclusions
• Need more consistency in outcome measures across studies
OUR EXPEDITION BEGINS…
What is the current best evidence for the efficacy of Supported Employment in employment outcomes for people living with Schizophrenia and Schizophrenia Spectrum Disorders?
**Method**

Preferred Reporting Items for Meta-Analyses (PRISMA)

**Population**
Adults, Schizophrenia Spectrum Disorder, live in community

**Intervention**
Supported employment

**Control**
Usual care, no intervention

**Outcome**
Employment attainment, duration, wages

- Keyword search terms (no MeSH terms used)
- Ten databases (Cochrane Library, CINAHL, MEDLINE, EMBASE, AMED, Informit Health, Scopus, Web of Science, PsychINFO and OTSeeker)
- Grey literature (Grey Matters checklist)
- Two reviewers (CT & LC):
  - Screening title and abstracts of search hits.
  - Full text for clarification
  - Critical appraisal of included studies
    - PRISMA for SRs; CASP for RCTs; Cochrane Risk of Bias Tool
  - Data extraction
<table>
<thead>
<tr>
<th>PICO definition</th>
<th>Search terms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P:</strong> Schizophrenia; Adults, &gt;18 years with DSM diagnosed a Schizophrenia Spectrum Disorder</td>
<td>Schizophreni* or schizoaffect*</td>
</tr>
<tr>
<td><strong>I:</strong> Supported Employment; Vocational rehabilitation interventions that are geared toward competitive employment, early job placement, integrated therapy.</td>
<td>rehabilitat* or train* or intervention* or education* or program* or placement or search* or workshop* or session* or club* or group* or treatment* or vocation* or group#skill* or work* or employ* or unemploy* or job or social or individual#skill or support or skill* or psychosocial or return to work or RTW or assertive community treatment or ACT traditional vocational rehabilitation or #VR or VOC case#manage* or sheltered workshop* or functional adaptation skills training or neuro#cognitive enhancement therap* or NET</td>
</tr>
<tr>
<td><strong>C:</strong> Usual care, or no intervention</td>
<td>control* or no treatment* or usual care or usual treatment or usual intervention or as usual or no intervention</td>
</tr>
<tr>
<td><strong>O:</strong> Employment outcomes</td>
<td>outcome* or frequenc* or effective* or efficac* or result* or dura* or compliance with polic* or status or hour* or competitive or full#time or part#time or casual or wage or pay or remunerat* or retention or retain*</td>
</tr>
</tbody>
</table>
**METHOD**

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PRISMA flow diagram for the systematic review into the efficacy of Supported Employment for people with Schizophrenia

Records identified through database searching (n = 2673)
Additional records identified through other sources (grey lit= 12)

Combined total records identified (n = 2685)

Records after duplicates removed (n = 1192)

Records screened (n = 1192)
Records excluded (n = 1164)

Full-text articles assessed for eligibility according to review PICO (n = 28)

Full-text articles excluded
Did not fit PICO = 15
Did not meet inclusion criteria = 7
Other = 2
(n = 24)

Studies included in qualitative synthesis (n = 4)

Studies included in quantitative synthesis (meta-analysis) (n = 0)

Records pearled from included studies (n = 0)
Results

Four RCTs were identified, constituting NHMRC level 2 evidence

All scored between 15 and 17 out of 22 for methodological quality
  • Predominant point loss due to lack of blinding

Assessment of bias
  • Attrition
  • Reporting bias (range of outcomes and prior relationships)

Meta analysis was not possible due to
  • differences in sample population characteristics (ages, stages of diagnosis/progression)
  • Differences in reported outcome measures
**Results**

**Twamley et al. (2012)**
- US study; CASP = 16
- Efficacy of SE (IPS) for older people (45-65 years old) living with Schizophrenia
- 58 participants randomised to IPS or community VR (TAU)
- 6-month follow-up

<table>
<thead>
<tr>
<th></th>
<th>IPS</th>
<th>CVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>56.7%*</td>
<td>28.6%*</td>
</tr>
<tr>
<td>Job duration (median)</td>
<td>4.5 weeks* (SD=13.5)</td>
<td>0 weeks* (SD=7.8)</td>
</tr>
<tr>
<td>Wages</td>
<td>$1857* (SD=$2969)</td>
<td>$0* (SD=$883)</td>
</tr>
</tbody>
</table>

* p<.05
**Results**

Latimer et al. (2006)
- Canadian study; CASP = 17
- Efficacy of SE (IPS) for outpatient adult clients of MH clinic living with SSD
- 150 participants randomised to IPS or TAU
- Measures taken up to 12 months

<table>
<thead>
<tr>
<th></th>
<th>IPS 6 months</th>
<th>TAU 6 mths</th>
<th>IPS 12 mths</th>
<th>TAU 12 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>23.2%</td>
<td>9%</td>
<td>46.7%**</td>
<td>18.9%**</td>
</tr>
<tr>
<td>Job duration (weeks)</td>
<td>4.5 (SD=13.5)</td>
<td>0 (SD=7.8)</td>
<td>6.9 ** (SD=12.7)</td>
<td>2.9 ** (SD=8.5)</td>
</tr>
<tr>
<td>Total hours</td>
<td>126.4** (SD=266.8)</td>
<td>72.5** (SD=251.6)</td>
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</table>

** p<.001
**Results**

Kilackey et al. (2008)
- Australian study; CASP = 16
- Efficacy of SE (IPS) for young people (15-25 years old) part of EPPIC program following first psychosis
- 41 participants randomised to IPS or TAU
- 6 month follow-up

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<tr>
<td>Employed</td>
<td>65%**</td>
<td>9%**</td>
</tr>
<tr>
<td>Mean duration/26wks (median; SD)</td>
<td>8.63 weeks* (5; SD=9.22)</td>
<td>3.8 weeks* (0; SD=10.07)</td>
</tr>
<tr>
<td>Mean total hours (median; SD)</td>
<td>33.9** (38; SD=15.51)</td>
<td>22.5** (22.5; SD=10.61)</td>
</tr>
</tbody>
</table>

* p<.05
** p<.01
**Results**

**Cook et al. (2008)**
- US multi-site study; part of larger CASP = 15
- Efficacy of SE for adults with Schizophrenia living in community across 8 states
- Results for 1273 participants randomised to SE or TAU were reported
- 6, 12 and 24 month follow-up

<table>
<thead>
<tr>
<th></th>
<th>IPS</th>
<th>TAU</th>
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</thead>
<tbody>
<tr>
<td>Employed at 6 months</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>Employed at 12 months</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Employed at 24 months</td>
<td>21%</td>
<td>11%</td>
</tr>
</tbody>
</table>

- Relationship between Schizophrenia diagnosis and study condition on competitive employment outcomes (people with Schizophrenia benefited more from SE compared to other VR, than any other group)
People with schizophrenia who were offered SE service compared to usual vocational rehabilitation or no service, showed:

- Higher rates of competitive employment
- Increased job tenure
- More hours of work
- Higher wages earned

- Results between interventions were disparate in the Australian study, among young people with first episode psychosis.

- Employment history influences employment in SE group (2 studies)
What can we conclude?

• Supported Employment is effective in achieving positive employment outcomes for people with Schizophrenia

• Consistent with findings from previous studies with people with other mental illnesses

• Work history continues to be a predictor of employment outcomes

• More effective for people with first episode psychosis
  • Recent employment history
  • Poor self-efficacy less entrenched?
  • Evidence for early intervention? Skills; functioning; social support

• Preliminary evidence for formalised integration of VR, clinical and social services within the disability employment services (DES) in Australia
More work is needed!
- Clinical significance of work duration still “small bickies”
- SE great for some. What about the others?

Limitations of this review:
- Limited to NHMRC level 1 and 2 evidence, limited studies included
- Search limitations- English
- Employment statistics in Italy among people with Schizophrenia
OT mental health contribution in several components of SE model…

- Recovery-oriented intervention, case management
- Self-management education and support
- Education for families, carers, employers
- Inform policy by documenting outcomes
  - *Commitment made by federal government in 2009*
  - *Included supported employment in NDIS recommendations*
  - *Set employment, and social inclusion targets for 2022 including work participation, wages, community awareness, and self-determination through dedicated agency supports*
“The conundrum of how to integrate all people into the community and improve each person’s quality of life when social justice is confronted by the market economy amounts to a ‘wicked’ problem”

Australian Public Services Commission 2007
REFERENCES


Becker, DR, Smith, J, Tanzman, B, Drake, RE & Tremblay, T 2001, 'Fidelity of supported employment programs and employment outcomes', vol. 52, no. 6, p. 834.


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Graphics:
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