

Title of Work- Employment experiences for people with severe mental illness.

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Clinical Scenario –

Employment is an important aspect of recovery for people who experience mental illness (Duncan & Peterson, 2007). However, unemployment rates among people with mental illness are higher than the general population (Duncan & Peterson, 2007). The 1948 Universal Declaration of Human Rights suggests that there is an ethical basis for the human right to work (Everett, Donaghy, & Feaver, 2003). Therefore people with mental illness should have the opportunity for skills training to increase their chances of obtaining employment. According to Everett et al. (2003) studies suggest supported employment is one of the most successful return to work programmes as it focuses on the work place as a therapeutic environment (Everett et al., 2003). Lindenmayer, McGurk, Mueser, Khan, Wance, Hoffman, Wolfe & Xie (2008) suggest it is worth investigating whether cognitive skills training and supported employment is effective in obtaining employment.

Focused Clinical question

For clients aged 19-64 with axis 1 or severely disabling axis 2 mental illness, is the use of cognitive strategies combined with supportive employment more effective than supportive employment alone for obtaining competitive employment?

Summary of search, 'Best Evidence' appraised and key findings.

Databases, library catalogues and references were searched to find the best article to answer the clinical question. As a result of my search 3 randomised controlled trials (RCT), a literature review and descriptive studies which included quantitative and qualitative methods were found. However, the RCT by Lindenmayer et.al., (2008) was the highest level of evidence on cognitive skills training and supportive employment, and was selected for appraisal. This study found that a 12-week trial on cognitive remediation for people with axis 1 mental illness worked more weeks and improved overall cognitive performance than those who did not receive cognitive remediation.

Clinical bottom line

People with severe mental illness who participated in a 12 week study focusing on cognitive remediation worked more hours within supportive employment and improved overall cognitive performance however, more research is needed to see whether this is sustained within the community and over a 12 month period of time.

Limitation of the CAT:

This critical appraisal has been peer reviewed by one lecturer as part of an assignment.

Search Strategy:

Data bases and sites searched	Search terms	Limits used
OT seeker	"Mental health" Skill* cognitive	Intervention- vocational retraining Diagnosis- Schizophrenia
PubMed	"Mental health" OR illness Work	Skill training Full text articles
CINAHL with full text	"Mental health" OR illness Employ*	Published between- 1995-2009 Full text
Otago library catalogue	Mental illness OR health Work Employ*	

Inclusion and Exclusion Criteria

Inclusion-

- English speaking
- Stable use of medications
- DSM-IV axis 1 disorders or severely disabling axis II disorders
- Aged 19-64
- Articles were limited between 1995-2009

- Occupational therap*

Exclusion-

- Absence of psychiatric history of mental retardation, brain injury, neurological disorder.
- Excluded patients with schizophrenia who experienced residual cognitive impairment side effects because the participants needed to have intact cognitive functioning to participate in cognitive remediation.
- Studies which had qualitative and quantitative components because they are not a high level of evidence.

Results of the Search

Study Design/Methodology of Articles Retrieved	Level according to Taylor (2007)	Author (Year)
Qualitative*	4	Auerbach & Richardson (2005)
Randomized controlled trial* from CINAHL	2	Lindenmayer, McGurk, Mueser, Khan, Wance, Hoffman, Wolfe, Xie, (2008)
Randomized controlled trial from CINAHL	2	McGurk, Mueser, Feldman, Wolfe & Pascaris (2007).
Randomized control trial from PubMed	2	Kin Wong, Chiu, Tanq, Mak, Liu, Chiu (2008).
Literature review from the Bill Robbertson Library	5	Duncan, & Peterson (2007)

* = articles chosen to review

Best Evidence

I chose the article by Auberach et al. (2005) as my compulsory article. It is a qualitative study which used grounded theory design and has level 4 evidence. The article by Lindenmayer et al. (2008) was chosen because randomized control trials have the highest level of evidence (level 2) apart from a meta analysis. It was published in 2008 therefore it is still relevant and is one of the most recent articles published of English culture that was found.

Title of article: The long-term work experiences of persons with severe and persistent mental illness.

Aim/Objective of the study- To investigate the work experiences of individuals with Severe Mental Illness to determine their perspectives on the processes involved in working.

Study Design- Grounded theory design (qualitative)

Setting- There was no clear setting described in this study.

Participants- Two male and four female current or former clients of the San Francisco Community Mental Health Services aged 21-60. They had been seen by a mental health professional for continuous or repeated treatment during the past 3 years, had Axis I or severely disabling Axis II disorder as described in the DSM-IV. To be eligible for this study the participants had to have worked in competitive employment for at least eighteen months during the previous three years. They were receiving treatment with psychotropic medications.

Method- This study consisted of taped, semi structured interviews by a single interviewer. Five participants had two forty five minute to one hour interviews and one participant had one interview. The data was then transcribed using grounded theory analysis, which consisted of systematically coding for incidents and events and assigning conceptual labels to the categories which emerged. Additional questions were asked to the participants, to verify the hypotheses about the relationships within the categories. The researcher then continually compared new data to the old whilst modifying and revising the data.

Findings-

The main motivators for the participants were internalised values and satisfaction they received from working. The participants experienced many obstacles which they had to problem solve and had enough supports which helped maintain independence and work. Overall the individuals were able to manage their daily problems and succeed in supported employment because of their internal motivation and support from others.

Original Authors' Conclusions-

The individuals were able to manage their daily problems and succeed in competitive

employment, because of their own internal motivation with the support of the organisations and people around them.

Critical Appraisal:

Validity/trustworthiness of the results:

This authors did not mention whether it went through an ethics committee. Letters of informed consent were reviewed and signed at the first interview. Procedural rigour was not used in this study.

Purposive sampling was used. The sample size was limited due to the inclusion criteria. Auerbach, & Richardson (2005) describe how it was difficult recruiting participants who fitted into the diagnosis category and who had worked successfully in competitive employment for long periods. Participants also feared disclosing their diagnosis to employers which also limited the number of participants.

Credibility-

Credibility refers to whether the research is giving a true picture of the phenomenon being studied (Taylor, 2007). This study only used one method to collect data which was semi structured interviews, therefore triangulation was not used. The researcher did not state whether or not a field diary was used. The author did mention there was a process in which the investigator's sensitivity to disciplinary knowledge, other research and own professional experience was considered but they did not state which process and how this was achieved. Member checking was used because additional questions were asked to the participants to verify the interpretations made by the researcher.

Transferability is a way of assessing how well the research will fit with other contexts to see how transferrable the piece of research is (Taylor, 2007). Auerbach et al. (2005) used purposive sampling to identify potential participants who experienced competitive employment. They had clear eligibility criteria, however did not mention how the participants were recruited and did not provide a demographic overview. There was not enough sufficient information mentioned in the study regarding the participants and the research setting therefore unable to draw comparisons from the information provided.

Dependability is defined as a technique for assessing the rigour for qualitative research, it relates to how consistent the data and findings of the study are according to Taylor (2007). The researcher did not have the transcribed data peer reviewed or use any other strategies to ensure the dependability of the findings. Therefore this article is not dependable..

Summary/Conclusion:

The results of this study are not trustworthy due to the lack of research methods, poor sample size and procedural rigour used to limit bias and ensure trustworthiness. There is poor evidence to trust the findings of the Auberach et al. (2005) study. Four out of six of the clients had obtained employment in the SFCMHS therefore may have said what they thought the interviewer wanted to hear as she is a senior occupational therapist of the community team. Participants who partook in this study had already been working in competitive employment for 18 months therefore the findings of this study may not be a true representation of what other clients with mental illness experience when trying to obtain competitive employment.

Title of Article:

A randomized controlled trial of cognitive remediation among inpatients with persistent mental illness.

Aim Objective of the Study: This study evaluated the feasibility and efficacy of a cognitive remediation program in improving cognitive and work functioning for intermediate to long stay psychiatric inpatients.

Study Design: Randomized controlled Trial

Setting: Intermediate to long stay psychiatric inpatient unit at Manhattan Psychiatric Center in New York.

Participants: 85 participants (89% male) were enrolled in the study over a period of 2.5 years from November 2003 to May 2005 which is a good sample size for a RCT. They were recruited in the inpatient center through referrals by inpatient staff which had been informed of the study and had nominated potential eligible candidates. After completing the base line assessments patients were randomly assigned using computer generated randomization to cognitive remediation group (45 participants) or the control group (40 participants). Their reading levels were stratified to ensure the two groups had similar reading levels.

They had DSM-IV chart diagnosis of predominantly schizophrenia, schizoaffective disorder, or bipolar disorder. They had (to have) no history of mental retardation, brain injury or neurological disorder, stable use of medications for at least 3 months and proficiency in English. There was a mean age of 43.5 +/- 10.3 years, and education of 10.6 +/- 3.1 years.

Method: A 12 week trial took place. Neuropsychological functioning was assessed at baseline and 12 weeks after cognitive remediation treatment. Symptoms were assessed at baseline, midpoint (6 weeks), and 12 month follow ups. The cognitive remediation group consisted of 24 hours of computerised practice (45 minutes per session, two hours per week computer practice) over a 12 week period in groups of six to eight patients. They attended a weekly one hour discussion group to facilitate the transfer of cognitive skills to daily activities. It was supervised

by three hospital staff members: two psychologists and a psychology or occupational therapy intern.

The computerised control group received similar hours of staff and computer exposure without cognitive training exercises. They were in groups of six to eight and received three weekly, one hour computer sessions. They were supervised by two or three hospital staff.

Results:

The Analyses of covariance (ANCOVA) evaluating changes in cognitive functioning between the two groups detected a statistically significant difference ($p=0.05$) for overall cognitive function, psychomotor speed and verbal learning in the cognitive remediation group compared to the control group. All effects indicated a greater improvement for patients in the cognitive remediation group than in the control group.

The amount of weeks worked was statistically significant ($p=0.042$) for the cognitive remediation group compared to the control group. Wages earned and hours worked suggested trends favouring the cognitive remediation group however, this was not statistically significant.

There were significant improvements over time on the Positive And Negative Syndrome Scale (PANSS) positive subscale ($p=0.027$) and the activation subscale ($p= 0.003$). However there were no significant changes on the negative, depressive or cognitive subscales. Therefore cognitive remediation did not appear to affect the rate of improvement of psychiatric symptoms over the study period.

Original Authors' Conclusions.

Cognitive remediation is an effective intervention at improving cognitive functioning compared to a computer control intervention. There were indications which associated cognitive remediation with better work outcomes as the experimental group worked more weeks compared with the control group. There is further research needed to identify the benefits of psychosocial functioning from better work outcomes and the impact of cognitive remediation after discharge from the hospital.

Critical Appraisal:

Validity/Trustworthiness of the results:

The research procedures were approved by the hospital's institutional review board and the participants signed informed consent forms before participating in the study. The trial addressed a clearly focused issue which was; evaluating the feasibility and efficacy of a cognitive remediation program in improving cognitive and work functioning for intermediate- to long-stay psychiatric inpatients. However, it could be argued that the study could have looked more into the 'self-efficacy' of the patient groups and how they felt the cognitive remediation program effected their lives and their ability to work.

Outcomes and outcome measures were clearly defined:

The tests used in the cognitive battery; premorbid academic achievement, verbal working memory, psychomotor speed, information processing speed, verbal learning and memory, executive functioning and overall cognitive functioning were briefly described how they were administered and what was entailed. Psychiatric symptoms were assessed using the PANSS and work measures which included cumulative hours, weeks worked and wages earned were collected by the vocational rehabilitation director (not blind to the conditions).

The assignment of participants to treatments were randomised using a computer-generated randomisation sequences after the base line assessments were completed, to the cognitive remediation group or the computer control group stratified by their WRAT 3 reading scores. At the start of the trial the chi squared analyses and t tests indicated no statistically significant differences between the two groups at baseline on any demographic, clinical or cognitive variables. The drop outs in this study were accounted for at the end of the trial. The researchers gave a detailed account of reasons for drop out in the cognitive remediation group and the control group (p244.). The participants were not aware (blind) of what group they were allocated to. The interviewers who completed the job interviews were blind to the condition in which each patient had been assigned during the treatment phase.

There is gender bias in this study because the sample was 89% predominantly male therefore is not a true representation of the population. Although the two groups were receiving co-interventions at the same time of the study, co-intervention bias was minimised because both the control and cognitive remediation group both attended the same type and number of mall

groups (p243).

An attention 'control' group was used to minimise attention bias. Where the people in the control group receive the same amount of attention as those people in the treatment group although it is not the same treatment (Law, Stewart, Pollock, Letts, Bosch, & Westmorland, 1998). The computer control group received the same amount of exposure to computers, had the same size groups and number of supervisors. Therefore the control group was treated equally apart from the experimental intervention; cognitive training exercises.

The researchers gave a clear overview at the start of the study of what interventions were being compared, what outcome measures were being used and how they were being measured. This would enable the randomised controlled trial to be replicated for future studies.

Summary/Conclusion:

The control group was equally treated with the cognitive remediation group apart from the intervention, therefore bias was minimised. The study used ANCOVA which is an appropriate statistical analysis which accounts for the variance between variables. Overall the results suggest cognitive remediation improved overall cognitive functioning and they worked more weeks compared with the control group in supported employment at the hospital. However, clinical importance of how this affected the participants on an individual level for motivation and self esteem was not addressed. Was it the cognitive remediation intervention which increased the amount of weeks worked or the weekly group which taught the participants compensatory strategies for managing persistent cognitive problems when working and performing activities of daily living?

Implications for practice, education and future research

These two articles have suggested that supported employment is beneficial for clients with severe mental illness. However, both studies have shown that the participants need to have intact cognitive functioning in order for competitive employment to be obtainable. Clients with schizophrenia disorder are likely to experience various levels of cognitive ability, and it seems to produce some permanent cognitive impairment (Allen, 1985). Therefore this will cause difficulty in regaining cognitive function when participating in the cognitive remediation intervention with

some patients who experience residual cognitive impairments. It was evident from the findings of Lindenmayer, et al. (2008), that cognitive remediation program is effective for obtaining competitive employment within a supported hospital setting. However, this study did not explain the clinical implications or significance of cognitive remediation and the sample was predominantly male. A discussion group was used to help the clients transfer their cognitive skills and teach them how to compensate when performing at work and in activities of daily living, which is a primary focus for occupational therapists. The study did not describe how the group was implemented, ran or what skills were taught in order to facilitate the transfer of cognitive skills to daily activities. Therefore further research is needed to focus on how the participants were able to transfer their new cognitive skills in everyday life and what impact this had on their ability to obtain competitive employment including an equal number of male and female participants.

The setting was in an inpatient hospital setting at the psychiatric centre and was a 12 week trial. In New Zealand it is unlikely for patients to spend 12 weeks in an acute inpatient setting, therefore unfeasible to implement in New Zealand Occupational therapy practice unless it was adapted to the community. It would be a challenge to control for all other variables impacting on the amount of computer exposure, education and other variables such as community groups.

The Auberach et al. (2005) study only interviewed 6 participants who were already successful with obtaining employment. 4 were employed within the SFCMHS. In order to gain an understanding on the experience of people with obtaining long term employment further research is needed to understand the clients point of view who have not been successful in obtaining employment.

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