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[Intervention Review]

Interventions for obtaining and maintaining employment in adults with severe mental illness, a network meta-analysis

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ABSTRACT

Background

People with severe mental illness show high rates of unemployment and work disability, however, they often have a desire to participate in employment. People with severe mental illness used to be placed in sheltered employment or were enrolled in prevocational training to facilitate transition to a competitive job. Now, there are also interventions focusing on rapid search for a competitive job, with ongoing support to keep the job, known as supported employment. Recently, there has been a growing interest in combining supported employment with other prevocational or psychiatric interventions.

Objectives

To assess the comparative effectiveness of various types of vocational rehabilitation interventions and to rank these interventions according to their effectiveness to facilitate competitive employment in adults with severe mental illness.

Search methods

In November 2016 we searched CENTRAL, MEDLINE, Embase, PsychINFO, and CINAHL, and reference lists of articles for randomised controlled trials and systematic reviews. We identified systematic reviews from which to extract randomised controlled trials.

Selection criteria

We included randomised controlled trials and cluster-randomised controlled trials evaluating the effect of interventions on obtaining competitive employment for adults with severe mental illness. We included trials with competitive employment outcomes. The main intervention groups were prevocational training programmes, transitional employment interventions, supported employment, supported employment augmented with other specific interventions, and psychiatric care only.

Data collection and analysis

Two authors independently identified trials, performed data extraction, including adverse events, and assessed trial quality. We performed direct meta-analyses and a network meta-analysis including measurements of the surface under the cumulative ranking curve (SUCRA). We assessed the quality of the evidence for outcomes within the network meta-analysis according to GRADE.



Main results

We included 48 randomised controlled trials involving 8743 participants. Of these, 30 studied supported employment, 13 augmented supported employment, 17 prevocational training, and 6 transitional employment. Psychiatric care only was the control condition in 13 studies.

Direct comparison meta-analysis of obtaining competitive employment

We could include 18 trials with short-term follow-up in a direct meta-analysis (N = 2291) of the following comparisons. Supported employment was more effective than prevocational training (RR 2.52, 95% CI 1.21 to 5.24) and transitional employment (RR 3.49, 95% CI 1.77 to 6.89) and prevocational training was more effective than psychiatric care only (RR 8.96, 95% CI 1.77 to 45.51) in obtaining competitive employment.

For the long-term follow-up direct meta-analysis, we could include 22 trials (N = 5233). Augmented supported employment (RR 4.32, 95% CI 1.49 to 12.48), supported employment (RR 1.51, 95% CI 1.36 to 1.68) and prevocational training (RR 2.19, 95% CI 1.07 to 4.46) were more effective than psychiatric care only. Augmented supported employment was more effective than supported employment (RR 1.94, 95% CI 1.03 to 3.65), transitional employment (RR 2.45, 95% CI 1.69 to 3.55) and prevocational training (RR 5.42, 95% CI 1.08 to 27.11). Supported employment was more effective than transitional employment (RR 3.28, 95% CI 2.13 to 5.04) and prevocational training (RR 2.31, 95% CI 1.85 to 2.89).

Network meta-analysis of obtaining competitive employment

We could include 22 trials with long-term follow-up in a network meta-analysis.

Augmented supported employment was the most effective intervention versus psychiatric care only in obtaining competitive employment (RR 3.81, 95% CI 1.99 to 7.31, SUCRA 98.5, moderate-quality evidence), followed by supported employment (RR 2.72 95% CI 1.55 to 4.76; SUCRA 76.5, low-quality evidence).

Prevocational training (RR 1.26, 95% CI 0.73 to 2.19; SUCRA 40.3, very low-quality evidence) and transitional employment were not considerably different from psychiatric care only (RR 1.00,95% CI 0.51 to 1.96; SUCRA 17.2, low-quality evidence) in achieving competitive employment, but prevocational training stood out in the SUCRA value and rank.

Augmented supported employment was slightly better than supported employment, but not significantly (RR 1.40, 95% CI 0.92 to 2.14). The SUCRA value and mean rank were higher for augmented supported employment.

The results of the network meta-analysis of the intervention subgroups favoured augmented supported employment interventions, but also cognitive training. However, supported employment augmented with symptom-related skills training showed the best results (RR compared to psychiatric care only 3.61 with 95% CI 1.03 to 12.63, SUCRA 80.3).

We graded the quality of the evidence of the network ranking as very low because of potential risk of bias in the included studies, inconsistency and publication bias.

Direct meta-analysis of maintaining competitive employment

Based on the direct meta-analysis of the short-term follow-up of maintaining employment, supported employment was more effective than: psychiatric care only, transitional employment, prevocational training, and augmented supported employment.

In the long-term follow-up direct meta-analysis, augmented supported employment was more effective than prevocational training (MD 22.79 weeks, 95% CI 15.96 to 29.62) and supported employment (MD 10.09, 95% CI 0.32 to 19.85) in maintaining competitive employment. Participants receiving supported employment worked more weeks than those receiving transitional employment (MD 17.36, 95% CI 11.53 to 23.18) or prevocational training (MD 11.56, 95% CI 5.99 to 17.13).

We did not find differences between interventions in the risk of dropouts or hospital admissions.

Authors' conclusions

Supported employment and augmented supported employment were the most effective interventions for people with severe mental illness in terms of obtaining and maintaining employment, based on both the direct comparison analysis and the network meta-analysis, without increasing the risk of adverse events. These results are based on moderate- to low-quality evidence, meaning that future studies with lower risk of bias could change these results. Augmented supported employment may be slightly more effective compared to supported employment alone. However, this difference was small, based on the direct comparison analysis, and further decreased with the network meta-analysis meaning that this difference should be interpreted cautiously. More studies on maintaining competitive employment are needed to get a better understanding of whether the costs and efforts are worthwhile in the long term for both the individual and society.



PLAIN LANGUAGE SUMMARY

Helping adults with severe mental illness get a job and to keep it, a network meta-analysis

What is the aim of this review?

The aim of this review was to find out if it is possible to help adults with severe mental illness get a job and to keep it.

People with severe mental illness, such as schizophrenia or bipolar disorder, are more often unemployed. However, these people still often have a desire to work. There are many ways to try and help them obtain a competitive job. People with severe mental illness used to be placed in sheltered employment or they were enrolled in prevocational training, before searching for competitive work. Now there are also interventions focusing directly on finding a job quickly, with ongoing support to keep the job. This is known as supported employment. Recently, there has been a growing interest in combining supported employment with other prevocational or psychiatric interventions.

Key messages

Supported employment and augmented supported employment are more effective than the other interventions in obtaining and maintaining competitive employment for people with severe mental illness without increasing the risk for hospital admissions. The difference in effectiveness between supported employment and augmented supported employment is small. Future research should evaluate the cost-effectiveness of augmented supported employment compared to supported employment only.

What was studied in the review?

We included 48 randomised controlled trials involving 8743 participants. The interventions included prevocational training, transitional employment, such as sheltered jobs, supported employment, supported employment augmented with other specific interventions or psychiatric care only. We used the data from these studies about the number of participants who obtained a competitive job and the number of weeks they worked. Through a direct comparison meta-analysis and a network meta-analysis we assessed the difference in effectiveness between all interventions, and ranked these accordingly.

What are the results of the review?

Supported employment and augmented supported employment are more effective than prevocational training, transitional employment or psychiatric care only in obtaining employment in both types of meta-analysis. In the direct comparison meta-analysis prevocational training was also more effective than psychiatric care only. Augmented supported employment shows slightly better results than supported employment alone, again in both types of meta-analysis. However, this result was less clear in the network meta-analysis. In the subgroup analysis supported employment with symptom-related skills training showed the best results. The results are based on moderate- to very low-quality evidence, meaning that the results of future studies could change our conclusions. Augmented supported employment is more effective than prevocational training and supported employment in maintaining competitive employment in maintaining competitive employment in maintaining competitive employment.

Overall, we did not find any differences between interventions in the risk of participants dropping out or hospital admissions.

How up to date is this review?

We searched for studies that had been published up to 11 November 2016.