Short research paper

The benefits of a preventive job search program on re-employment and mental health at 2-year follow-up

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This study investigated whether a preventive, group-based job search program has long-term beneficial effects on the re-employment and mental health of participants who have been unemployed for a prolonged period of time. A total of 1,227 unemployed Finnish job seekers participated in this randomly assigned experimental field study. Participation in the programme significantly decreased symptoms of depression, and increased the self-esteem of the participants during the 2 years of follow-up. Compared to the control group, the participants of the experimental group were engaged significantly more often in the labour market, either employed, or participating in vocational training.

Prolonged unemployment may lead to serious health problems, such as decreased self-esteem (Feather, 1990; Goldsmith, Veum, & Darity, 1996), and depression (Dooley, Catalano, & Wilson, 1994), as well as many other harmful health effects (Catalano, 1991; Fryer & Payne, 1986). These problems make re-entering the labour market especially difficult for the long-term unemployed (Latack, Kinicki, & Prussia, 1995; Vesalainen & Vuori, 1999).

Various labour market programmes have been used to develop the resources of unemployed workers, to promote their re-employment, and prevent the negative social and psychological effects of unemployment (OECD, 1996). Earlier research has demonstrated that re-employment usually reduces depressive symptoms, and restores psychological and social functioning to pre-unemployment levels (Kessler, Turner, & House, 1989; Lahelma, 1992). It also appears that the quality of re-employment is essential for improving mental health (Wanberg, 1995). Therefore, programmes aimed primarily at promoting and facilitating quality re-employment of unemployed workers should be effective in promoting their mental health as well. These kinds of programmes include job-search training and labour market guidance, which have been shown to have positive effects on later re-employment and mental health outcomes (Eden & Aviram, 1996).

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1993; Caplan, Vinokur, & Price, 1997; Vuori & Vesalainen, 1999). Workers who have been unemployed for a longer time period may find it difficult to attain quality employment. However, active involvement in the labour market seems to promote self-esteem and mental health when these activities support latent functions such as time structure (Wanberg, Griffiths, & Gavin, 1997; Waters & Moore, 2002).

One of the most promising job-search programmes for the unemployed has been the MPRC Job Search Program from the Michigan Prevention Research Center (MPRC). The major strength of the MPRC programme, compared to other programmes for unemployed workers, is that it was strongly theory-driven and documented in detail (Curran, 1992). The method was developed as a preventive intervention for recently unemployed job seekers to facilitate their return to the labour market, and to prevent the negative mental health consequences of unemployment.

The MPRC Job Search Program utilizes social learning techniques, and active learning for motivating and supporting the role change, from a passive unemployed worker, to an active job seeker (Caplan et al., 1997). The aim of the programme is to strengthen job-search self-efficacy and to inoculate against setbacks. Increases in self-efficacy and inoculation are expected to raise self-confidence, as well as both the motivation and intensity of job-search behaviour, and consequently, its effectiveness among the participants (Bandura, 1986), leading to an increase in re-employment (Eden & Aviram, 1993; Vuori & Vesalainen, 1999). Because job loss and unemployment have been demonstrated to increase depressive symptoms via financial strain (Kessler, Turner, & House, 1988; Vuori & Vesalainen, 1999), we anticipated that re-employment would decrease depressive symptoms. It addition, increased mastery as an outcome of the programme also decreases depressive symptoms (Vinokur & Schul, 1997; Vuori & Vinokur, 2005).

In the long term, the beneficial effects of the intervention among the participants are expected to originate from more productive, stable, and satisfactory employment trajectories, compared to non-participants (Vinokur, Schul, Vuori, & Price, 2000). Correspondingly, we expect better quality employment trajectories to lead to better mental health (Kニックki, Prusia, & McKee-Ryan, 2000; Wanberg, 1995). In addition, inoculation against setbacks during the intervention has been demonstrated to protect mental health later on during temporary unemployment spells (Vinokur & Schul, 1997).

Beneficial impacts of the MPRC Job Search Program on the re-employment and mental health of recently unemployed workers have been reported from two experimental field studies in the USA (Caplan, Vinokur, Price, & van Ryn, 1989; Vinokur, Price, & Schul, 1995). In the USA, the participants of the programme experienced a significant increase in re-employment, in the quality of this employment, and a significant decrease in depressive symptoms both in the 6-month and in the 2-year follow-ups (Caplan et al., 1989; Vinokur, van Ryn, Gramlich, & Price, 1991; Vinokur et al., 1995; Vinokur et al., 2000).

A Finnish version of the MPRC program, the Työhoon Job Search Program, was likewise tested in a randomly assigned experimental field study, but among participants including long-term unemployed persons. The 6-month follow-up results also had a beneficial impact on re-employment and mental health outcomes (Vuori, Silvonen, Vinokur, & Price, 2002). The Työhoon Program significantly increased the quality of the re-employment, namely permanence of the attained jobs, among those in the experimental group compared to the controls. The beneficial impacts on re-employ-
ment were strongest for those who had been unemployed for a moderately long period and were at risk of becoming long-term unemployed. The Työnhon intervention also significantly decreased symptoms of distress.

In the present study we investigated whether the Työnhon intervention would have longer-term beneficial effects on employment trajectories, and consequently, on the employment status and mental health of persons who have been unemployed for a longer period of time. In the USA, the MPRC intervention had beneficial impacts both on re-employment and mental health in 2-year follow-ups among recently unemployed workers (Vinokur et al., 2000, 1991), and in Finland the Työnhon intervention showed positive effects on re-employment and mental health in a half-year follow-up (Vuori et al., 2002). Consequently, we propose the following two hypotheses:

**Hypothesis 1.** In the 2-year follow-up, the Työnhon intervention will increase the level and quality of re-employment in the experimental group compared to the control group.

**Hypothesis 2.** In the 2-year follow-up, the Työnhon intervention will decrease symptoms of depression and increase self-esteem in the experimental group compared to the control group.

**Methods.**

**Participants.**

A total of 1,230 individuals who were unemployed job seekers \((N = 1,153)\), or had received a termination notice and were searching for a job \((N = 77)\) between September 1996 and June 1997, participated in this experimental field study. To become participants, the respondents had to agree to the randomization procedure of the study, and to turn in the baseline assessment questionnaire (T1).

The age of the respondents varied from 18 to 61 years of age \((M = 37.0; SD = 8.6)\). Of the total sample 77.8% were women and 22.2% were men. At the time of recruitment, the mean duration of unemployment was 10.7 months \((SD = 17.3; Mdn = 5\) months\), and 28% of the participants had been unemployed for 12 months or longer. Three participants reporting extensively long unemployment of over 10 years were omitted from the data as outliers. Those who volunteered for our study were better educated, and more often were women, than the average unemployed workers in the study area (for details, see Vuori et al., 2002).

**Randomization procedure and experimental condition.**

The respondents were randomly assigned into an experimental \((N = 629)\) and control group \((N = 632)\). Those randomized into the experimental group were invited to participate in the Työnhon workshop. The controls received printed information that covered the intervention content. A follow-up (T2) was conducted using mailed self-administered questionnaires 2 weeks after the intervention. Later follow-ups were conducted 6 months (T3), and 2 years (T4) after the intervention.

During the week-long group activities of the Työnhon Program, the participants identified their own skills, while learning job-search skills, and how to deal with setbacks and obstacles during the job-search process. The detailed intervention process...
was documented by Curran (1992), and by Mäkitalo, Tervahartiala, and Saarinen (1997). A more systematic presentation of the conceptual framework of the intervention is available in Price and Vinokur (1995), and in Vinokur and Schul (1997). Three male and female trainer teams delivered the programme during five half-day sessions. The trainers were selected from unemployed job-seekers, and were trained for 2 months. Each group was evaluated for trainer actions during at least 1 day. A total of 43 workshops were conducted, with groups varying in size from 6 to 17 participants ($M = 10.3, SD = 2.4$).

Follow-up data collection.

The T4 questionnaires were returned by 1,144 (90.6%) respondents, but because of the shorter second reminder questionnaire, 92 of the respondents at T4 did not answer the psychological measures. The experimental and the control group did not differ in response rates at the follow-up. In return for completing the questionnaires, the participants were offered free tickets to cultural or sports events.

Measures.

Demographic characteristics and duration of unemployment were assessed using standard survey questions for reporting age, gender, marital status, education, and employment.

Re-employment was a dichotomous variable. It had the value 1 if the participant was re-employed, or ran her or his own business in the open market, and the value 0 otherwise.

Labour market engagement was also a dichotomous variable. It had the value 1 if the participant was re-employed in the open market, or in a subsidized job, or vocational training, and the value 0 if the participant was unemployed.

Job satisfaction was evaluated at both T1 for the last job before becoming unemployed, and at T4 for the new job of the re-employed. Job satisfaction was measured with a 9-item scale compiled for this study ($\alpha_{T1} = .83$, and $\alpha_{T4} = .85$). The items included the following questions: how satisfied are/were you with your workmates, . . . with your work place in general, . . . with your work tasks, . . . with your salary, . . . with your career possibilities, . . . with safety at your work, . . . with the possibilities of using your skills and . . . with variety at your work. Each item was measured with a 5-point Likert scale, from 1 = very unsatisfied, to 5 = very satisfied. Unemployed workers had a missing value for T4 job satisfaction.

The measure of depressive symptoms was a 10-item Finnish scale (Salokangas, Stengård, & Poutanen, 1994), based on the Hopkins Checklist (Derogatis, Lipmann, Rickels, Uhlenhuth, & Covi, 1974). Cronbach’s $\alpha$ coefficients were .92 at T1 and .92 at T4.

Self-esteem was measured with a 10-item measure (Rosenberg, 1979). The internal consistency of the scale was .84 at T1, and .91 at T4. Back translation had been used in the development of this Finnish version of the scale.

Effectiveness of randomization and attrition.

Comparisons between the experimental and the control group did not reveal any statistically significant differences in the study variables at T1 (Table 1). Consequently, the integrity of randomization to the experimental and the control group was fully preserved. Also, at T4 follow-up the differences remained very similar to the T1
The drop-out effect in T4 was controlled, as well as the no-show bias (Hansen, Collins, Malotte, Jonson, & Fielding, 1985). At T4, 209 participants did not return the full questionnaire; 92 of them answered the short questionnaire, and the remaining 117 participants were drop-outs. Compared to those who answered at T4, the drop-outs were more often men ($p < .01$), less educated ($p < .05$), had been unemployed for a longer time at T1 ($p < .05$), were more depressed ($p < .05$), and their self-esteem was lower ($p < .01$). We found no significant differences between those who provided the full version of the questionnaire, and those who responded to the short version.

Of the 629 persons in the experimental group, 186 did not participate in the Työhön group, the so-called ‘no-shows’. The age of non-participants was 34.8 years in average ($M = 33.0, SD = 9.0$), and the age of the participants was 37.6 years in average ($M = 37.0, SD = 8.3$). There were no significant differences between the participants and the no-shows in other demographic variables. In all of our analyses, the comparisons were based on the complete randomized experimental group, which included both the intervention participants, and the no-shows, to prevent selection bias. The results consequently give lower estimates of the effects.

**Table 1.** Comparison of T1 study variables between the experimental and the control group

<table>
<thead>
<tr>
<th></th>
<th>Experimental group</th>
<th>Control group</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>Sig. (2-tailed)</th>
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<td>Female 483 Male 131</td>
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<tr>
<td></td>
<td>Married 379 Single 230</td>
<td>Married 397 Single 215</td>
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<td>.34</td>
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<tr>
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<td>Mean 37.3 SD 8.6</td>
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<td>Job satisfaction</td>
<td>Mean 32.3 SD 5.9</td>
<td>Mean 32.0 SD 6.4</td>
<td>-0.96</td>
<td>1077</td>
<td>.34</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Mean 31.4 SD 5.9</td>
<td>Mean 31.6 SD 6.1</td>
<td>0.42</td>
<td>1202</td>
<td>.67</td>
</tr>
<tr>
<td>Depressive symptomsa</td>
<td>Mean 7.5 SD 6.0</td>
<td>Mean 7.9 SD 6.5</td>
<td>1.15</td>
<td>1212</td>
<td>.25</td>
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</tbody>
</table>

Note. *t*-Value based on the assumption that the variances are not equal.

Integrity and impact of the intervention.

The participants of the intervention reported their group experiences within about a week after the intervention. They evaluated their participation very positively. The mean ratings of their responses on the 5-point scales (5 = most positive) regarding the group process, other participants, material, and discussions, varied between 3.4 and 4.7 ($SD = 0.41–0.93$). The ratings of the trainers and their fellow group members regarding warmth, expertise, and helpfulness on the 7-point scales (7 = most positive) varied between 6.2 and 6.7 ($SD = 0.78–0.87$).
Results.

At the 2-year follow-up, 70.4% of the participants in the experimental group were either re-employed, in a subsidized job, or in vocational training, as opposed to 64.1% in the control group, \( \chi^2(1, N = 1112) = 4.90, p < .05 \). The proportion of re-employed persons was 54.1% in the experimental group, and 49.5% in the control group, \( \chi^2(1, N = 1112) = 2.41, \text{ns} \).

The main effects of the intervention were examined using regression and logistic analyses. All analyses included baseline (T1) values of dependent variables, and the independent background variables were assessed at baseline as control variables, namely age, gender, education, and marital status. The correlations of the study variables are presented in Table 2. The analysis of job satisfaction comprised only those participants who were employed at T4, as displayed in Table 3.

The results in the first row of Table 3 demonstrate that the group intervention had a significant beneficial impact on symptoms of depression and self-esteem, supporting Hypothesis 2. The intervention also showed significant beneficial impacts on re-employment and job satisfaction in one-tailed tests, but failed to show similar effects in two-tailed tests. However, the intervention had a significant beneficial impact on overall labour market engagement. Significantly, more participants of the experimental group were re-employed either on the free market, or in subsidized jobs, or were in vocational training, compared to members of the control group.

Discussion.

This study tested the impact of the Työhön Job Search Program on re-employment and mental health. The group intervention was an adaptation of the MPRC Job Search Program, which was originally developed in the USA for promoting the re-employment and mental health of recently unemployed workers. The main question of this study was whether the Työhön program would be powerful enough to have an impact on employment trajectories, and mental health among longer-term unemployed workers 2 years after the intervention.

We found that the Työhön intervention significantly decreased symptoms of depression, and increased self-esteem in the whole experimental group compared to the controls. Part of this improvement in mental health may have resulted from more favourable employment trajectories during the 2-year follow-up period, and better positions on the labour market. However, the main impact of the intervention on re-employment and job satisfaction was significant only in one-tailed tests, but not in two-tailed tests. There was a significant increase in overall labour market engagement. During the follow-up, considerably more participants of the experimental group were either re-employed, in subsidized work, or in vocational training, compared to the members of the control group. The improved mental health of the group participants may thus partly be related to the general increase in their labour market engagement.

The better mental health of the participants could also be the result of increased mastery as an outcome of the programme. Increased mastery has been demonstrated to decrease depressive symptoms (Vinokur & Schul, 1997). However, because the increase in mental health was observed 2 years after involvement in the groups, one would also expect some more stable beneficial changes in the life situation of the participants.
### Table 2. Matrix of intercorrelations among study variables

<table>
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<tr>
<th>Variable</th>
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Note. *p < .05, **p < .01, two-tailed test.
The beneficial effects of the group intervention on mental health were evident among the participants, many of whom had been unemployed for a longer period already before the intervention. In the earlier follow-up of the same participants, there was no effect of the intervention on depressive symptoms, and it seemed as though financial security may have buffered against symptoms of depression (Vuori et al., 2002). During this 2-year follow-up, the unemployed study participants had already dropped to a lower level of financial support. With decreasing financial security, and worsening future prospects, the mental health of long-term unemployed persons may be subjected to extra pressure (Fryer & Payne, 1986). In this context, it seemed that the mental health effects of the intervention were more extensive during this 2-year follow-up, than during the earlier half-year follow-up (Vuori et al., 2002). One possible explanation could be that the effects increase when other external support decreases, and mental health risks increase.

The incremental variance explained by the intervention may appear relatively small in scale. However, as our analyses are based on the originally randomized design with non-participants in the experimental group, these effects are lower estimates of the real effects, which are likely to be somewhat greater. Also, when the results are projected to larger populations of unemployed people, the overall impact is substantial. For this reason, the Työhoön Job Search Program has been implemented country-wide in Finland.

To conclude, it appears that the results of the 2-year follow-up showed a sustained beneficial impact of the Työhoön group intervention on re-employment and mental

<table>
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<th>Mental health</th>
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<td>Job satisfaction</td>
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<tr>
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<td>.31*</td>
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<td>Age</td>
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<td>−.03***</td>
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<td>.06</td>
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<td>.006</td>
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*p < .05; **p < .01; †p < .10; two-tailed test.
Note. *Values are unstandardized logistic regression coefficients.
       bValues are standardized linear regression coefficients.
       cExperimental group = 1, Control group = 0.
       dFemale = 0, Male = 1.
       eUnmarried = 0, Married = 1.

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health over time. Our results also demonstrated that the applicability of the preventive Työhoön group method is not restricted to early unemployment, but that the beneficial effects of the intervention are evident also among those job seekers who have been unemployed for a longer period of time.

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References


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