



## **AOTA Critically Appraised Papers Series**

# **Evidence Exchange**

*\*A product of the American Occupational Therapy Association's Evidence-Based Literature Review Project*

### **CRITICALLY APPRAISED PAPER (CAP)**

#### ***Focused Question***

**What is the efficacy of vocational rehabilitation intervention, in terms of delaying time to first job loss, for persons with rheumatic diseases who are employed but at risk for job loss?**

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Allaire, S. H., Li, W., & LaValley, M. P. (2003). Reduction of job loss in persons with rheumatic diseases receiving vocational rehabilitation. *Arthritis and Rheumatism*, 48(11), 3212–3218.  
<http://dx.doi.org/10.1002/art.11256>

#### **CLINICAL BOTTOM LINE:**

This study presents evidence in support of job retention vocational rehabilitation for persons with rheumatic diseases. However, this study offers no specific guidance to occupational therapy practitioners or program developers regarding intervention protocol. Although study participants in the experimental group who received vocational rehabilitation reported a delay or reduction in job loss, the article does not provide enough information for future replication of intervention techniques.

Occupational therapists who work on job retention issues would benefit from more specific information regarding adjustments and accommodations used by the vocational rehabilitation counselors. Occupational therapists' expertise lies in their ability to match interventions to specific client situations; therefore, depending on the types of solutions offered by vocational rehabilitation counselors, occupational therapists might be well-suited to implement preventive job retention interventions in a variety of client situations, including risks for job loss due to chronic conditions. More targeted research is needed to determine the efficacy of preventive job retention interventions offered by occupational therapists.

#### **RESEARCH OBJECTIVE(S)**

To determine the efficacy of vocational rehabilitation for persons with rheumatic diseases who are still employed but at risk for job loss.

#### **DESIGN TYPE AND LEVEL OF EVIDENCE:**

Randomized controlled trial; Level 1.

Limitations (appropriateness of study design):

Was the study design type appropriate for the knowledge level about this topic? *Circle yes or no, and if no, explain.*

YES  NO

**SAMPLE SELECTION**

How were subjects selected to participate?

Recruitment of patients via rheumatologists in the Eastern Massachusetts area, through letters and a screening form distributed by postal mail. Secondary eligibility assessment occurred via a follow-up phone call.

**Inclusion Criteria**

People with rheumatoid arthritis, knee osteoarthritis, systemic lupus erythematosus, ankylosing spondylitis, or psoriatic arthritis; between ages 18–65 years; currently employed but at risk for job loss.

**Exclusion Criteria**

Participants could not have plans for retirement, moving, or knee surgery within 2 years of starting the study. Additionally, participants were not eligible if they did not complete and return a baseline evaluation survey.

**SAMPLE CHARACTERISTICS**

*N* = 242

% Dropouts

#/ (%) Male

#/ (%) Female

Ethnicity

Disease/disability diagnosis

Check appropriate group:

|                 |                   |                    |                     |   |
|-----------------|-------------------|--------------------|---------------------|---|
| <20/study group | 20–50/study group | 51–100/study group | 101–149/study group | 150–200/study group <input checked="" type="checkbox"/> |
|-----------------|-------------------|--------------------|---------------------|---|

**INTERVENTION(S) AND CONTROL GROUPS**

Group 1

|                   |   |
|-------------------|---|
| Brief Description | The control group received educational pamphlets about managing health-related employment problems; <i>n</i> = 120. |
|-------------------|---|

|                |                                       |
|----------------|---------------------------------------|
| Setting        | Participant's home (via postal mail). |
| Who Delivered? | No one (resources were mailed).       |
| Frequency?     | 1 time.                               |
| Duration?      | N/A                                   |

Group 2

|                   |  |
|-------------------|--|
| Brief Description | The experimental group received job retention vocational rehabilitation counseling in 3 areas: job accommodation, vocational counseling and guidance, and education and self-advocacy. Participants were also given educational materials about managing health-related employment problems during the intervention; <i>n</i> = 122. |
| Setting           | The article does not state which interventions occurred where, but it did note that interventions occurred at local offices of the state vocational in rehabilitation program; public areas; and/or in participants' homes.  |
| Who Delivered?    | Rehabilitation counselors with no specific expertise in vocational rehabilitation.   |
| Frequency?        | 2 times for 1.5 hours each.  |
| Duration?         | 5–9 months.  |

Intervention Biases: Circle yes or no and explain, if needed.

Contamination

YES  NO

Co-intervention

YES  NO

Timing

YES  NO

Intervention was of sufficient duration to show outcomes.

Site

YES  NO

Use of different therapists to provide intervention

YES  NO

Possible difference in skill level between the 2 rehabilitation counselors.

**MEASURES AND OUTCOMES**

Complete for each relevant measure when answering the evidence-based question:

Name of measure, what outcome was measured, whether the measure is reliable and valid (as reported in article--yes/no/NR [not reported]), and how frequently the measure was used.

Health Assessment Questionnaire: Functional limitation; validity and reliability NR; scored once prior to intervention.

Work Experience Survey: Barriers and solutions for job performance; validity and reliability NR; scored once during intervention.

Survey of Disability and Work: Job autonomy and physical demands; validity and reliability NR; scored once during intervention.

### Measurement Biases

Were the evaluators blind to treatment status? *Circle yes or no, and if no, explain.*

YES  NO

Unclear who conducted the survey and when the data was collected in relation to randomization. Additionally, unclear what the rehabilitation counselors knew about the study design.

Recall or memory bias. *Circle yes or no, and if yes, explain.*

YES  NO

## RESULTS

List results of outcomes relevant to answering the focused question.

Include statistical significance where appropriate ( $p < 0.05$ ).

Include effect size if reported.

### Job loss events over the 48 months of study

| Type of Job Loss  | Experimental Group<br>( $n = 122$ ) | Control Group<br>( $n = 120$ ) | All Study Subjects<br>( $n = 242$ ) |
|---|-------------------------------------|--------------------------------|-------------------------------------|
| No. of permanent and temporary job loss events combined | 25                                  | 48                             | 73                                  |

### Job loss outcome (time to permanent or temporary job loss) in the experimental group

| Job Loss Outcome                      | Odds-ratio | 95% Confidence Interval |
|---------------------------------------|------------|-------------------------|
| Permanent or first temporary job loss | 0.58       | 0.34–0.99               |
| Permanent job loss only               | 0.49       | 0.24–1.02               |

The results of this study suggest that job loss was both delayed and reduced in incidence among study participants who received the job retention vocational rehabilitation.

Was this study adequately powered (large enough to show a difference)? *Circle yes or no, and if no, explain.*

YES  NO

Were appropriate analytic methods used? *Circle yes or no, and if no, explain.*

YES  NO

Were statistics appropriately reported (in written or table format)? *Circle yes or no, and if no, explain.*

YES  NO

## CONCLUSIONS

State the authors' conclusions that are applicable to answering the evidence-based question.

The authors reported that this is the only study that evaluates the efficacy of job retention vocational rehabilitation as a preventive intervention. This study demonstrates that vocational rehabilitation counseling is effective for individuals with rheumatic diseases who are at risk for job loss. The intervention was associated with significant delays and reduction in job loss for experimental group participants. However, the study has certain limitations. The study is nonreplicable because the content of sessions with rehabilitation counselors was not reported. In addition, it is unclear what effect the frequency and duration of intervention had on study outcomes. Further, the study participants were randomized and stratified by location rather than socioeconomic status (SES). SES is an important consideration because available jobs are associated with different functional demands, and areas of lower SES may have a narrower range of available jobs. None of the participants had severe functional limitations, which are a possibility with rheumatic diagnoses; accordingly, this intervention may be of limited utility and not generalizable to all persons with rheumatic diseases.

This work was completed in November 2012 by Jessica R. Hauert, OT student, St. Louis University, and Rebecca M. Aldrich, PhD, Assistant Professor, Department of Occupational Science and Occupational Therapy, St. Louis University.

AOTA has determined that this CAP has met AOTA-established criteria and guidelines for research design, format, and structure. The CAP has been peer reviewed by CAP reviewers who are selected and trained by AOTA. However, the vigorous peer review process is conducted independently of the AOTA review and editorial processes.

For more information about the Evidence Exchange, e-mail [evidenceexchange@aota.org](mailto:evidenceexchange@aota.org)

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