Secondary conditions are health problems that exacerbate or intensify limitation caused by a primary impairment. They affect an individual’s physical, medical, emotional, and psychological well-being. Untreated secondary conditions may cause acute medical episodes or severe health conditions that limit normal activities of daily living (DeVivo, 1998; Ipsen, 2006). Several research studies report that the probability of employment is lower for people who experience secondary conditions such as depression, pain, anxiety, sleep problems, fatigue, and feelings of isolation (Crisp, 2005; Ipsen & Seekins, 2008). Fortunately, many secondary conditions are manageable through health promotion behavioral interventions that improve healthy lifestyle behaviors.

Although health promotion programs are effective in a variety of settings, people with disabilities have limited access due to employment, financial, insurance, and environmental barriers. Vocational Rehabilitation (VR) is a possible delivery point to overcome these barriers and improve access. Although health promotion services seem to fit within the Rehabilitation Act’s definition of allowable VR services, there is little evidence that health promotion programs for VR clients are effective. This report describes research that addresses this gap.

Methods: We adapted the Working Well with a Disability workshop curriculum from the successful Living Well with a Disability health promotion program (Ravesloot, Seekins, & White, 2005). The 10 week Working Well workshop (2 hours per week) utilizes work-related goals as the reason for making healthy lifestyle changes. Workshop lessons focused on goal setting, problem solving, healthy reactions, self advocacy, managing stress, physical activity, nutrition, and maintenance.

Counselors in 20 local VR offices in five states recruited clients to participate in a randomized controlled trial of the program. VR clients were asked to participate if they were of working age, had a physical disability, and were eligible and accepted to receive VR services. Recruited participants agreed: (1) to attend a 10-week Working Well workshop if assigned to the intervention group or to serve in a control group (no health promotion intervention) and; (2) to complete five waves of data (baseline, and at three month intervals for a year).

CILs were contracted to deliver the Working Well workshops. Each CIL director identified at least two staff to participate in a Working Well tele-training and to conduct the workshop. After completing tele-training, CIL facilitators received lists of VR clients randomly assigned to the treatment condition. Facilitators contacted the participants, scheduled the meetings, and conducted the Working Well workshop.

Participants: 297 VR clients participated in the study – 46% male and 54% female. The average participant’s age was 45, and most were Caucasian (74%) or African American (17%). Six percent of participants had less than a high school education, 23% had completed high school or earned a GED, 55% had some college, and 16% had a college education or higher. There were no statistically significant differences between participants based on assignment to either the Working Well intervention or control groups.
Measures: We measured secondary conditions with the validated *Secondary Conditions Surveillance Instrument* (SCSI). The SCSI assesses the prevalence and severity of 32 health conditions (e.g., pain, fatigue, weight problems, depression, urinary tract infection) amenable to health promotion efforts (Ravesloot, et al., 2005). Respondents used a scale to indicate how limiting each condition was, with 0 indicating “rarely or never limits”, 1 indicating “mild or infrequent limitation” (1-5 hours per week), 2 indicating “moderate limitation” (6-10 hours per week), and 3 indicating “significant limitation” (more than 11 hours per week). A sum score across all 32 secondary conditions provided an overall measure of limitation from secondary health conditions. Scores could range from 0 to 96. Past research shows that higher ratings of secondary health conditions lower the probability of employment (Ipsen & Seekins, 2008). Therefore, VR clients who could manage their secondary conditions more effectively might improve their employment outcomes.

Recruitment: We experienced problems implementing the *Working Well* research. Many VR clients who were assigned to attend the *Working Well* program (the intervention group) did not attend. Figure 1 shows recruitment and participation numbers.

Figure 1: Working Well Recruitment

CIL workshop facilitators contacted intervention participants about attending the workshop. Some participants agreed to come but then did not attend. Others gave various reasons for not participating (e.g., time required for employment-related activities, such as education, training, job trials, and work; caregiving responsibilities; significant health issues).

Results: The results reported in this progress report are preliminary and reflect the first three waves (baseline, 3 months, and 6 months) of data. Our comparison of groups based on assignment to the intervention vs. control group showed no significant differences over time. Individuals who attended at least one *Working Well* session, however, experienced significant reductions in secondary conditions over time.

Figure 2 shows the baseline to six-months change in the sum of secondary conditions scores for: (1) the control group (n = 130); (2) *Working Well* attendees (n = 76); and (3) *Working Well* non-attendees (n = 90). Only *Working Well* attendees showed significant reductions in secondary conditions (* p< .05).
Discussion: Of the 166 participants assigned to participate in the Working Well intervention, only 76 (45.8%) attended any workshop sessions. This attendance rate, however, was significantly different for individuals above and below the SCSI median split (p<.01). For individuals with higher rates of secondary conditions, 56% attended the workshop vs. 35% for individuals who reported lower rates of secondary conditions.

Possible explanations for this difference may be: (1) healthier clients had more conflicting employment-related activities that interfered with attendance; or (2) clients with higher rates of health problems may realize a need for health promotion activities and made more effort (rearranged schedules, etc.) to attend the workshop.

Although this study could not determine the reason for attendee vs. non-attendee differences, the study does have implications about how VR might screen clients for referral into Working Well workshops and which clients are most likely to benefit.

Preliminary health data indicate that the Working Well program may be particularly helpful to VR clients who enter the program with higher rates of secondary health conditions. Personal communications from participants to workshop facilitators and researchers provided additional information that this was the case.

Forty-seven Working Well attendees returned workshop evaluation forms. Participants were overwhelmingly positive about the program. They liked the group format and opportunity to problem-solve with, and learn from, peers. Several workbook chapters were particularly useful to respondents, including those on goal setting, problem solving, healthy reactions, stress management, and advocacy.

Participants’ few negative comments focused on the length and breadth of the materials. About 25% of respondents felt the workshop lasted too long, while 12% felt it moved too quickly; 12% of respondents found the materials to be too elementary, 4% found them too complex.
**Next Steps:** Based on participants’ comments, we are modifying both the *Living Well* and *Working Well* curricula. The *Living Well* program will cover basic material related to developing meaningful life goals and health behaviors. The *Working Well* curriculum will expand these concepts and assume that participants have developed at least one employment-related life goal. We intend that each program will complement the other without overlap. Depending on participants’ initial knowledge, *Working Well* can be an “advanced topics” class or a stand-alone workshop. We will develop screening criteria for each program. We will also develop Master Training for the *Living Well* and *Working Well* programs to increase our service delivery capacity. Finally, we hope to support credentialed facilitators who can bill for Medicaid reimbursement.

**References**


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For additional Information, please contact: Catherine Ipsen, Ph.D.
Research and Training Center on Disability in Rural Communities
The University of Montana Rural Institute, 52 Corbin Hall
Missoula, MT 59812-7056
888-268-2743 or 406-243-4562; 406-243-4200 (TTY); 406-243=2349 (fax)
ipsen@ruralinstitute.umt.edu http://rtc.ruralinstitute.umt.edu

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