Effectiveness of a Job Search Training Program for Youth with Visual Impairments

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Abstract

Early work experiences predict future employment for youth with visual impairments, particularly when youth find jobs independently, but research has not supported the efficacy of sponsored work for this population. The most effective work experience programs include additional components such as job search assistance, and job search interventions are effective at improving employment outcomes. Thus, we conducted a quasi-experimental study to evaluate the effectiveness of adding job search training to a summer work experience program with 42 youth with visual impairments. Intervention group youth significantly increased job search knowledge and behavior compared to comparison group youth, and both groups increased in job search self-efficacy. Although additional research is needed, this study provides initial evidence of the job search program's effectiveness.

Keywords: visual impairment, employment, job search, self-efficacy, vocational rehabilitation

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Youth and young adults who are blind or visually impaired (i.e., those with visual impairments) often face challenges to obtaining employment after the completion of their education. Youth with visual impairments were less likely to be employed after leaving high school compared to the general youth population and youth from other disability groups (Newman et al., 2011; Sanford et al., 2011). In addition, they are more likely to be actively seeking work but unable to find a job: 32.9% of youth (ages 16 to 19), 16% of older youth (ages 20 to 24), and 14.7% of young adults (ages 25 to 34) with a visual difficulty were unemployed in 2016 (Bureau of Labor Statistics, 2017). These unemployment rates are approximately two to three times larger than rates for youth and young adults without a visual difficulty (15.6%, 8.4%, and 5%, respectively; Bureau of Labor Statistics, 2017).

Multiple researchers have found that high school work experience predicts employment later in life for youth with disabilities (Landmark, Ju, & Zhang, 2010; Mazzotti et al., 2016; Test et al., 2009; Wehman et al., 2015) and, specifically, for youth with visual impairments (Connors, Curtis, Wall Emerson, & Dormitorio, 2014; McDonnall, 2010; McDonnall, 2011; McDonnall & Crudden, 2009; McDonnall & O'Mally, 2012). Despite this fact, many youth with visual impairments are not obtaining paid work experience in high school: only 38% of these youth had a paid work experience in the past year according to the NLTS 2012, compared to 40% of all youth with disabilities and 50% of youth without disabilities (Lipscomb et al., 2017). The NLTS 2012 also documented that youth with visual impairments in high school were less likely to have a paid job at the time of data collection in 2012 compared to 2003 (12% versus 22%; Liu et al., 2018), which may be associated with the slow economy following the recession.

Short-term work experiences have been a common part of summer transition programs

for youth with visual impairments for many years. We anticipate that the number of these work experience programs will increase with the passage of the Workforce Innovation and Opportunity Act (WIOA, 2016), which requires vocational rehabilitation (VR) agencies to provide work-based learning experiences to all youth with disabilities. However, although early paid work experiences are clearly associated with future employment, school-sponsored work experiences did not predict future employment for youth with visual impairments (McDonnall, 2010; McDonnall & O'Mally, 2012). In addition, many youth with disabilities receive help from parents, teachers, or VR counselors to obtain jobs (Carter, Trainor, Ditchman, Swedeen, & Owens, 2009; Carter et al., 2010), but research indicates that it is more beneficial for youth to find jobs independently (Doren & Benz, 1998; McDonnall & O'Mally, 2012).

Although all VR agencies must sponsor work-based learning experiences for youth with disabilities, there is little to no evidence of the effectiveness of these experiences for youth with visual impairments; in fact, the limited empirical research available indicates these types of programs are *not* associated with future employment for this population (McDonnall, 2010; McDonnall & O'Mally, 2012). This finding contrasts with research with other populations of youth with disabilities that has supported the effectiveness of school-sponsored work or work-study programs (Baer et al., 2003; Carter, Austin, & Trainor, 2012; Shandra & Hogan, 2008). It should be noted that Carter et al. (2012) found that these types of unpaid work experiences were not predictive of future employment for youth with severe disabilities. In a research review of rigorous studies published between 1984 and 2010 regarding the effectiveness of interventions that included work experiences as a strategy to improve employment, evidence for youth with barriers to employment was mixed, with some programs documenting strong impacts and others not being effective (Sattar, 2010). All youth programs with strong impacts incorporated an

additional component into the program, such as vocational training or job search assistance (Sattar, 2010), indicating that simply providing a work experience alone may not be effective.

Another required service under WIOA for all youth with disabilities served by VR is "workplace readiness training to develop social skills and independent living" (WIOA, 2016). WIOA specifically mentions the development of job seeking skills as one of the possible components of workplace readiness training. Research conducted with youth with disabilities has supported associations with future employment for both job search instruction received in high school (Carter et al., 2012) and job search skills (Benz, Yovanoff, & Doren, 1997). However, no studies could be located that involved a job search intervention for youth with disabilities.

Job search interventions are "training programs designed to help job seekers look for employment or secure employment faster" (Liu, Huang, & Wang, 2014, p. 1010). In a comprehensive meta-analytic review of 47 experimental and quasi-experimental job search interventions, Liu et al. (2014) found that these interventions are effective: the odds of finding employment for participants were 2.67 times higher than the control groups. Such interventions were particularly effective for younger job seekers and for people with special needs or barriers to employment, such as people with disabilities. The meta-analysis also documented an association between typical outcome measures of job search interventions (e.g., job search skills, job search self-efficacy, and job search behavior) and employment, and significantly higher job search intentions among intervention participants.

Critical Components of Effective Job Search Interventions

In their meta-analysis of job search interventions, Liu et al. (2014) utilized statistical analyses to identify the most effective components of job search interventions for promoting employment. The authors identified six critical components: teaching job search skills,

improving self-presentation, boosting self-efficacy, encouraging proactivity, promoting goal setting, and enlisting social support. Liu et al. (2014) further determined that interventions effectively promoted employment only when both skill development (i.e., the first two listed) and motivation enhancement components (i.e., the last four listed) were included. One of the most utilized and researched job search interventions is the JOBS program, which was developed by researchers at the University of Michigan (Curran, Wishart, & Gingrich, 1999).

JOBS and School-to-Work Programs

In 1984, a team of researchers from the Michigan Prevention Research Center received funding from the National Institute of Mental Health to develop the JOBS program. The JOBS program is a preventive intervention with the goal of providing job-seeking skills to promote reemployment and to diminish or eliminate negative psychological aspects of unemployment (e.g., anxiety, depression, feelings of helplessness; Curran et al., 1999). The intervention also provides participants with social support and inoculation (i.e., protection) against setbacks, all of which are considered necessary components to enhance participants' sense of mastery and improve their mental health. Two large randomized experimental field studies conducted with unemployed adults in the United States utilizing the JOBS program documented its effectiveness in terms of reemployment, increasing job seeking self-efficacy, improving mental health, and maintaining motivation for job seeking and social support over time (Caplan, Vinokur, Price, & van Ryn, 1989; Vinokur, Price, & Schul, 1995; Vinokur, Schul, Vuori, & Price, 2000; Vinokur, van Ryn, Gramlich, & Price, 1991). In addition, intervention participants who obtained a job had higher monthly earnings and were more likely to get a job in their main occupation compared to those in the control group. These studies documented the short-term and long-term effectiveness of the JOBS program, with over two years of follow-up conducted with participants. The JOBS

program has been implemented in multiple locations in the United States, and in China and Finland (Price & Fang, 2002; Vuori, Silvonen, Vinokur, & Price, 2002).

A group of researchers in Finland modified the JOBS program for use with youth and young adults who were transitioning from vocational college to work, and they renamed it School-to-Work (Koivisto, Vuori, & Nykyri, 2007; Koivisto, Vuori, & Vinokur, 2010). Most of the principles on which the JOBS program was based remain in this revision (e.g., teaching job search skills, focus on social support, active learning, boosting self-efficacy, and inoculation against setbacks), but two differences are a focus on developing skills related to organization socialization and a *lack* of focus on unemployment issues (Koivisto et al., 2007). Evaluation of the School-to-Work program has documented its effectiveness in terms of obtaining employment, obtaining higher quality jobs that correspond to participants' education, and promoting work-related and financial goal-setting (Koivisto et al., 2007).

The Present Study

Despite the value of job search interventions for people who are seeking employment, a comprehensive review of the literature did not reveal any interventions that focused specifically on job search skills conducted with youth who have visual impairments, or with youth with other disabilities. Some youth work readiness programs include job search skills training, but these programs typically do not focus extensively on job search skills and have generally not been evaluated as to their effectiveness. Because empirical research suggests that school-sponsored work experiences do not predict future employment for youth with visual impairments, and that youth work experience programs are only effective when they include additional components, we expanded an existing summer work experience program administered by a state VR agency to add an innovative, research-based job search intervention. The purpose of this study was to

evaluate the effectiveness of adding job search training to a VR summer work experience program for youth with visual impairments. We investigated the following research hypotheses.

1. Participation in the summer work experience plus job search training will result in increased job search knowledge compared to participation in the summer work experience only.
2. Participation in the summer work experience plus job search training will result in increased job search behavior compared to participation in the summer work experience only.
3. Participation in the summer work experience plus job search training will result in increased job search self-efficacy compared to participation in the summer work experience only.

Method

Research Design

This study used a quasi-experimental repeated measures design. For logistical reasons, group assignment to the intervention or comparison group was based on geographical location. The intervention group included youth from two large cities in the state, and the comparison group included youth from other areas in the state. Assigning groups in this manner was the only feasible way for the VR agency to implement the intervention with this low-incidence population. To maximize the number of participants, the study included two cohorts of youth who participated in the summer work experience program in 2016 and 2017.

Participants

Youth with visual impairments who enrolled in a VR summer work experience program in one southeastern state who were 15 to 22 years old and did not have a moderate or severe cognitive disability were eligible to participate in the study. Fifty participants enrolled in the study; however, eight participants were excluded from the analysis sample (one was absent for half of the intervention due to illness, and seven did not participate in the summer work

experience), resulting in a sample size of 42 for this study (intervention group $n = 19$; comparison group $n = 23$).

At pre-test, participants ranged in age from 15 to 22 years ($M = 17.74$, $SD = 1.77$). Over half of participants were female (54.8%, $n = 23$), and most were African American (61.9%, $n = 26$), followed by white (33.3%, $n = 14$), Asian American (2.4%, $n = 1$), and mixed race or multiracial (2.4%, $n = 1$); one participant was Hispanic (2.4%). Nineteen participants (45.2%) were high school students, and 14 (33.3%) were part-time college students. Of the remaining 21.4% ($n = 9$) who were not students, seven had a high school diploma or equivalent, one attended college but did not have a degree, and one had a Bachelor degree. About a third of participants (33.3%, $n = 14$) received Supplemental Security Income (SSI) benefits at pre-test.

Most participants were legally blind (71.4%, $n = 30$), followed by other visual impairment (19.1%, $n = 8$), and totally blind (9.5%, $n = 4$). Nearly half of the sample (45.2%, $n = 19$) had one or more additional disability, including physical disability (31.0%, $n = 13$), ADD or ADHD (7.1%, $n = 3$), cognitive disability (4.8%, $n = 2$), learning disability (4.8%, $n = 2$), autism (2.4%, $n = 1$), and hearing impairment (2.4%, $n = 1$). About a third of the sample (31.0%, $n = 13$) had one or more health condition; the most commonly reported health conditions were asthma, diabetes, and autoimmune disorders. Youth in the intervention group (68.4%, $n = 13$) were more likely to have additional disabilities than youth in the comparison group (26.1%, $n = 6$), χ^2 (1, $N = 42$) = 7.53, $p < .01$. Similarly, intervention group participants (52.6%, $n = 10$) were more likely to have health conditions than comparison group participants (13.0%, $n = 3$), χ^2 (1, $N = 42$) = 7.63, $p < .01$. The two groups did not differ significantly on any other measured characteristics.

Almost half of the participants (47.6%, $n = 20$) indicated that they had previous job search training at pre-test. A larger percentage of youth in the intervention group (57.9%, $n = 11$)

had previous job search training compared to youth in the comparison group (39.1%, $n = 9$), although this difference was not significant, χ^2 (1, $N = 42$) = 1.47, $p = .23$. At pre-test, only 16.7% of participants ($n = 7$) reported having at least one previous paid job in their lifetime: 21.7% ($n = 5$) of youth in the comparison group and 10.5% ($n = 2$) of youth in the intervention group, which was not a significant difference, χ^2 (1, $N = 42$) = .94, $p = 33$.

Procedure

Mississippi State University's Institutional Review Board for the Protection of Human Subjects in Research approved the study protocol. VR agency staff distributed recruitment materials to eligible youth who enrolled in the summer work experience program and their parents or guardians. After we obtained consent or parental permission and assent (for minors), youth in both groups completed a pre-test survey before they participated in the job search program or summer work experience program. The pre-test included questions regarding demographic characteristics, previous employment and job search skills training, job search behavior, job search knowledge, and job search self-efficacy. We obtained additional demographic and summer work experience data from VR agency records. Comparison group youth participated in a VR agency-sponsored summer work experience, in which they worked for an employer in the community for 6 weeks and the VR agency paid their salaries. Intervention group youth participated in the job search program for 5 days prior to participation in the summer work experience. Both groups did a post-test survey after the summer work experience (about 8 weeks after the pre-test), which had similar questions as the pre-test but also included questions regarding jobs obtained between the pre- and post-test (e.g., how many paid jobs they had since the pre-test and follow-up questions about each reported job). Trained research staff administered the pre- and post-test surveys individually by telephone. Each survey

took about 30-45 minutes, and participants received a $20 gift card after completing each survey.

VR agency administrators selected trainers (who were employed by either the VR agency or a partner agency) to implement the job search program at each site. All trainers had substantial experience implementing training programs with youth with disabilities. Prior to implementing the program, lead trainers were required to participate in a one-day in-person training session conducted by the researchers. The training session covered the program's content and materials, activities, learning processes, training techniques, and trainer roles and responsibilities.

Job Search Program

Study researchers modified the School-to-Work program to create a job search program called *Putting Your Best Foot Forward: Job Search Skills Training for Youth with Visual Impairments*, ensuring that all six components of effective job search interventions were included. To address the needs of youth with visual impairments, the researchers added content and examples specific to this population. Program topics included: identifying strengths and skills, finding jobs, thinking like an employer, writing cover letters and resumes, disclosing one's disability, presenting oneself effectively in a job interview, and starting a new job.

Two lead trainers implemented *Putting Your Best Foot Forward* over five full, consecutive days. Each morning of the program consisted of approximately four hours of group sessions, which use the group training model developed by the Michigan Prevention Research Center for the JOBS program. The two trainers led the group through activities (e.g., discussions, small group exercises, role-plays, and brainstorming) that incorporate five learning processes: active learning, referent power, enhancing self-efficacy, building social support, and overcoming barriers to success. During the group activities, youth solve problems, rehearse job search behaviors, observe other people performing behaviors, and receive positive feedback on their

performance. Although the JOBS and School-to-Work programs include only group sessions, *Putting Your Best Foot Forward* includes an additional two to four hours of afternoon sessions during which participants applied what they learned during the morning group sessions by working on individual job search activities. Additional VR agency staff assisted with the afternoon sessions, to reach a participant-to-facilitator ratio of approximately 3-to-1. This arrangement allowed participants to receive direct support with the job search activities as needed. As a culminating activity on the last day of the program, youth participated in at least two interviews with employers from the community. As possible, youth interviewed with the employer for their specific summer work experience.

The program materials include a trainer's manual, facilitator's manual (for the VR agency staff assisting with the afternoon sessions), and student workbook (available in large print, braille, and electronic formats). The trainer's manual provides general guidelines for implementing the program and detailed instructions for each session (e.g., goal, description of activities, background information, and implementation steps). To promote implementation fidelity, trainers also used a PowerPoint presentation file that included the activities for each day, the main steps for each activity, the amount of time allotted for each activity, corresponding sections in the trainer's manual and student workbook, and audio and video clips (which included captions and descriptive video). The researchers provided support to the trainers as needed as they prepared for and implemented the intervention.

Measures

Job Search Knowledge. We developed a job search knowledge measure with multiple-choice questions (with four answer choices) for this project. First, we generated a pool of 38 items covering the following six categories: strengths and skills, finding job vacancies, resumes

and cover letters, job applications, interviews, and disclosure and accommodations. We then conducted an initial round of pilot testing with nine adults to obtain feedback on the questions and answer choices. After making minor changes to clarify some items, we conducted a second round of pilot testing with 20 high school and college students to evaluate the revised items. We conducted item analysis by analyzing response patterns and means (percentage correct) for each item. We eliminated items that were too difficult or too easy and selected 22 items with varying levels of difficulty for the final measure (e.g., *One of the most effective job search methods is (a) applying for advertised jobs, (b) networking with people you know, (c) filling out applications at businesses, or (d) using employment agencies*). Participants received 1 point per question answered correctly; job search knowledge composite scores represent the proportion of items answered correctly.

Job Search Behavior. To measure job search behavior, we used items from the job-seeking behaviors scale used in JOBS program research (Caplan et al., 1989; van Ryn & Vinokur, 1992). This scale has evidence supporting its predictive validity (Vinokur & Caplan, 1987), and is similar to job search behavior measures used in other studies (Blau, 1994; Saks & Ashforth, 1999). We modified the scale slightly for this study by adding references to email and internet, combining two similar behaviors into one item, and adding one item from Blau (1994), resulting in a 10-item measure. Participants were asked, "how many times have you done each of these things [during the last 6 months (at pre-test) or since the last survey (at post-test)]?" Sample job search behavior items were: (a) *read the help wanted or classified ads in a newspaper or online*; (b) *contacted an employment agency, search firm, or state employment service*; (c) *called, emailed, or visited a potential employer*; (d) *went on an informational interview*; (e) *prepared or revised your resume*; (f) *sent resumes to potential employers*; and (g)

filled out job applications (paper or online). For this study, we calculated a composite job search behavior index based on the number of behaviors participants did at least once during the designated time period (possible values ranged from 0 to 10), which had good reliability in JOBS program research (α = .83; Vinokur, & Price, 1999). This measure also had good reliability in this sample at pre-test (α = .82) and post-test (α = .88).

Job Search Self-Efficacy. We measured two dimensions of job search self-efficacy: job search behavior self-efficacy and job search outcomes self-efficacy. This two-dimensional model of job search self-efficacy has evidence supporting its construct and predictive validity (Saks, Zikic, & Koen, 2015). The job search behavior self-efficacy scale was based on the job search self-efficacy measure from JOBS program research (Caplan et al., 1989; van Ryn & Vinokur, 1992). The original measure was developed using item analysis and factor analysis procedures and had good reliability (α = .87; van Ryn & Vinokur, 1992). For this study, we separated items with multiple behaviors into two distinct items (e.g., *completing a good job application and resume* became *complete a good job application* and *complete a good resume*), resulting in expansion of the 6-item scale to a 9-item scale. The 7-item job search outcomes self-efficacy scale was based on the job search outcomes sub-scale of the job search self-efficacy scale, which had excellent reliability in previous research (α = .96; Saks et al., 2015). For this study, we modified the original job search outcomes self-efficacy measure by removing three items that were not relevant to our population. We also expanded the original 5-point scale from both self-efficacy measures to an 11-point scale to increase sensitivity and reliability (Bandura, 2006).

Participants were asked, "how confident are you that you can do the following things successfully?" They rated their confidence on a 0 to 10 scale (0 = not at all confident; 10 = totally confident). Sample job search behavior self-efficacy items included (a) *contact potential*

employers to consider you for a job, and (b) *make the best impression in a job interview*. Sample job search outcomes self-efficacy items included (a) *be successful in your job search*, (b) *be invited to job interviews*, (c) *get a job quickly*, and (d) *obtain a very good job*. The job search behavior self-efficacy scale had acceptable to good reliability for this sample at pre-test ($\alpha = .79$) and post-test ($\alpha = .87$), and the job search outcomes self-efficacy scale had good reliability for this sample at pre-test ($\alpha = .89$) and post-test ($\alpha = .86$).

Social Validity. Intervention group participants completed a brief program evaluation form on the last day of the program. They rated nine statements (e.g., *the program information is important to me*, *the things I learned will help me when I look for a job*, *the activities helped me learn the material*) on a 5-point Likert-type scale (1 = strongly disagree; 5 = strongly agree) and answered four open-ended questions. The lead trainers provided written feedback and comments for each day of the program. They also provided general program feedback and suggestions for improving the program through brief post-intervention phone interviews with the researchers.

Intervention Fidelity

During the intervention, trainers took attendance and completed a fidelity form where they recorded each activity completed (including the amount of time taken to complete each morning activity), and any deviations from the trainer's manual. Most youth were present for all 5 days of the intervention ($M = 4.87$, $SD = 0.33$). Trainers covered most of the material, although some activities required more or less time than anticipated. For example, a few activities (e.g., resume writing, online job search) took slightly longer than planned because some youth required extra support during these tasks. In one group, trainers condensed some information and changed the order of several activities, but still covered everything. In addition, a few group discussions exceeded the allotted time because the topics generated lively group discussions.

Data Analysis

Descriptive statistics (percentages or means and standard deviations) were used to describe participants' job obtainment at post-test, and job search knowledge, job search behavior, and job search self-efficacy at pre-test and post-test. To examine the effects of the intervention, we conducted three repeated measures analyses, each with time (pre-test, post-test) as a within-subjects factor and group (intervention, comparison) as a between-groups factor. Repeated measures ANOVAs were used to examine the effects of the intervention on job search knowledge and job search behavior. A MANOVA was conducted on the two self-efficacy measures (i.e., job search behavior self-efficacy and job search outcomes self-efficacy) using a doubly multivariate repeated measures design. Analyses were conducted with SAS 9.4.

Results

Table 1 contains descriptive statistics for job search knowledge, behavior, and self-efficacy overall and for each group at pre-test and post-test. At post-test, most participants (88.1%; $n = 37$) reported having one or more paid jobs during the time between the pre-test and post-test: 87.5% ($n = 21$) of the comparison group and 84.2% ($n = 16$) of the intervention group. After further questioning, we established that most of these reported paid jobs were actually the VR-sponsored work experience; only 7.1% ($n = 3$) of participants had a non-sponsored paid job: 4.4% ($n = 1$) of the comparison group and 10.5% ($n = 2$) of the intervention group.

Job Search Knowledge

The time x group interaction for the job search knowledge repeated-measures ANOVA was significant, $F(1, 40) = 13.55$, $p < .001$, partial $\eta^2 = .25$. Main effects were not significant for time, $F(1, 40) = 2.21$, $p = .14$, partial $\eta^2 = .05$, or group, $F(1, 40) = 0.01$, $p = .94$, partial $\eta^2 = .00$. Tests of simple effects indicated that job search knowledge scores increased significantly from

pre-test to post-test for the intervention group, $F(1, 18) = 8.59$, $p = .009$, but not for the comparison group, $F(1, 22) = 4.05$, $p = .06$.

Job Search Behavior

The time x group interaction for the job search behavior repeated-measures ANOVA was significant, $F(1, 40) = 11.24$, $p = .002$, partial $\eta^2 = .22$. The analysis also revealed significant main effects for time, $F(1, 40) = 8.57$, $p = .006$, partial $\eta^2 = .18$, and group, $F(1, 40) = 15.53$, $p < .001$, partial $\eta^2 = .28$. Tests of simple effects revealed a significant increase in job search behavior scores from pre-test to post-test for the intervention group, $F(1, 18) = 23.32$, $p < .001$, but not for the comparison group, $F(1, 22) = 0.08$, $p = .77$.

Job Search Self-Efficacy

The time x group interaction for the job search self-efficacy repeated-measures MANOVA was not significant, $F(2, 39) = 1.87$, $p = .17$, multivariate $\eta^2 = .09$, nor was the main effect for group, $F(2, 39) = 2.03$, $p = .15$, multivariate $\eta^2 = .09$. The main effect for time was significant, $F(2, 39) = 7.65$, $p = .002$, multivariate $\eta^2 = .28$. For both groups combined, mean scores for both job search behavior self-efficacy and job search outcomes self-efficacy increased from pre-test to post-test. The largest increase was evident in job search behavior self-efficacy for the intervention group, whereas the comparison group exhibited a modest increase. The two groups exhibited similar increases in job search outcomes self-efficacy.

Social Validity

The mean ratings for the youth program evaluation items ranged from 4.08 to 4.63 (on a 5-point scale). Overall, these ratings indicate that participants understood the information, found it important and helpful, felt that the student workbook was useful and accessible, thought the activities and afternoon sessions were helpful, and felt that the trainers did a good job

implementing the program. Responses to open-ended questions indicated that participants enjoyed learning how to search and apply for jobs, interview for jobs, and ask for accommodations. A few participants requested shorter sessions and more group work, and some gave suggestions for improving the formatting of the braille version of the student workbook.

All trainers reported that the program went well overall, and they felt that youth enjoyed the program. Trainers liked the group discussions and activities, particularly those related to identifying strengths and skills and disability disclosure. They also appreciated the level of detail included in the program activities and materials, and the afternoon activities where youth put what they learned into action. One trainer reported that two participants (both college students) received job offers on the third day of the program when they called their personal contacts to inquire about job leads. According to the trainer, the job offers generated considerable excitement among participants; however, neither of the participants ended up accepting the jobs due to fear of losing SSI benefits. The trainers also had ideas for additions to the program, which included (a) provide definitions for some of the strengths and skills, (b) add a group activity where participants interview an employee who is blind or visually impaired, and (c) add text messages and emails to personal contacts as an initial point of contact.

Discussion

In this study, we evaluated the effectiveness of adding job search training to a VR summer work experience program with a sample of 42 youth with visual impairments. The comparison group did the summer work experience only, and the intervention group did a job search training program in addition to the summer work experience. The job search program, called *Putting Your Best Foot Forward*, included skill development and motivation enhancement components, which are important features of effective job search interventions (Liu et al., 2014).

Results indicated that both groups increased job search self-efficacy, but only intervention group participants had significant increases in job search knowledge and job search behavior.

The intervention group's significant increase in job search knowledge from pre-test to post-test provides support for Hypothesis 1. Because participants did the post-test several weeks after completion of the job search training, this finding suggests that youth not only increased job search knowledge during the program, but they retained it, too. The job search knowledge scores for some intervention group youth remained low at post-test, suggesting a differential impact of the intervention on knowledge (or retention of knowledge). Conducting an immediate post-test and including youth characteristics as covariates in future studies of this intervention could provide further insight into this phenomenon.

The data also support Hypothesis 2, as youth in the intervention group significantly increased their job search behavior from pre-test to post-test. This finding indicates that intervention group participants engaged in a wider variety of job search behaviors (e.g., reading job advertisements, contacting employers, completing job applications) compared to comparison group participants. This finding may largely result from the fact that intervention participants did some of these activities during the job search program. Benefits of completing the tasks during the program are gaining experience with multiple job search techniques while receiving direct feedback, potentially resulting in increased skills in this area for future job searches.

The data did not support Hypothesis 3, as the time x group interaction for job search self-efficacy was not significant. Rather, job search self-efficacy increased significantly for both groups. Although the increase in job search behavior self-efficacy was substantially larger for the intervention group, this difference was not statistically significant. We expected an increase in self-efficacy for intervention group participants, but the increase in self-efficacy for the

comparison group was unexpected. The work experiences, skills, and relationships that participants in both groups gained through the sponsored work experience may at least partially explain their increase in job search self-efficacy. When youth participate in a sponsored work experience with an employer in the community, they gain experience in a real work setting that could be included on a resume, develop transferable skills, and expand their personal network, all of which could facilitate confidence in their ability to find future employment.

Anecdotal and empirical evidence from this study indicate that, for some youth, the distinction between sponsored and non-sponsored work may be unclear. During the post-test surveys, many youth required prompting and questioning to identify whether the work they performed was a sponsored work experience or a (non-sponsored) paid job. Most youth initially reported having a paid job between the pre-test and post-test, but additional questioning revealed that only three actually had a paid job. Youth who participate in sponsored work experiences would benefit from clarification regarding the distinction between sponsored work experiences and paid jobs. This point is also important to consider for national surveys of youth with disabilities that query youth about work experiences. Some youth who report having a paid job may actually be referring to sponsored work experiences rather than actual jobs, particularly in surveys that do not include questions or prompts regarding VR-sponsored work experiences.

Overall, youth in both groups expressed a high degree of confidence in their ability to search for a job and obtain a job from their search. In fact, most youth had very high self-efficacy at pre-test (69% of scores were 7 or above and only 4.8% were below 5), suggesting a ceiling effect for the self-efficacy measures. Accordingly, large average gains on the self-efficacy measures were unlikely, even though all three intervention group youth who had job search behavior self-efficacy scores of 6 or less at pre-test had gains in this area of 2.67 points or more.

Experience with a task may influence accuracy of self-efficacy judgments; less experience with a task is associated with less accurate perceptions of self-efficacy for that task (Gist & Mitchell, 1992), and individuals who have inaccurate self-efficacy appraisals tend to over-estimate their capabilities (Bandura, 1990). Thus, youth who lacked previous job search experience but had high self-efficacy at pre-test were likely overconfident in their job search skills.

It is unclear as to why youth who were very confident in their job search skills at pre-test would feel the need to participate in a sponsored summer work experience. One possibility is that youth who were SSI beneficiaries participated in sponsored work to avoid losing benefits. Regardless of whether or not they received SSI benefits, youth may have lacked motivation to put forth the effort to find a job on their own (irrespective of their belief in their capability of a positive job search outcome) if a sponsored job was readily available to them. If this is the case, it is important to consider the value of sponsoring ongoing, repeated work experiences for youth with disabilities. Repeated sponsored work experiences may do more harm than good for youths' future job searches if they result in a lack of motivation, and therefore a lack of experience, with job search activities. Employers do not readily hand out jobs to every applicant, but youth who have ongoing access to sponsored work experiences may develop this unrealistic expectation. People often encounter setbacks and difficulties when performing tasks such as searching for a job, and overcoming these setbacks and difficulties can teach them that success often requires sustained effort (Bandura, 1990). For youth who lack job search experience during the transition years, the effort and persistence involved in a successful job search may be a harsh reality when they become young adults who are searching for a job for the first time.

Limitations and Directions for Future Research

Two primary limitations of this study were the relatively small sample size and lack of

random assignment. Due to practical and logistical considerations related to implementing the intervention with a low-incidence population, we did not randomly assign participants to groups. Although preliminary analyses revealed few differences between groups, participants could have differed on variables not measured in this study. Additionally, participants were from a single U.S. state, which may limit generalizability of the findings to other locations. Future studies conducted on a larger scale with randomization (at either the group or individual level) would strengthen the evidence in support of this intervention. Other important avenues for future research include investigating the impact of the intervention over time on long-term outcomes including employment, examining effectiveness of the intervention by personal characteristics (e.g., age, student status, additional disabilities, SSI benefits), and exploring environmental factors (e.g., urban, suburban, or rural residence) that could affect employment outcomes.

Because all participants had a sponsored work experience through the summer work experience program, we could not isolate the effects of the intervention versus the sponsored work experience on our outcome measures. Future research is needed to examine the job search program's effectiveness for youth who do not participate in a sponsored work experience. It would also be valuable to evaluate the impact of benefits counseling and work incentives on employment outcomes, and whether participation in a sponsored work experience increases job search self-efficacy for other groups of youth. Finally, we took measures to promote and document intervention fidelity, but we did not use a direct (observational) measure of fidelity.

Implications for Practice

Putting Your Best Foot Forward is a job search training program for youth with visual impairments; however, it has implications for other contexts. For example, the program is applicable to various settings such as VR agencies, schools for the blind, and private agencies,

and it could be implemented as a standalone program, as part of a longer program, or integrated into the school day. For the purpose of this study, the program was implemented over five full, consecutive days; however, spreading the content out over 10 half days or a longer time period would also be feasible. Furthermore, *Putting Your Best Foot Forward* and its principles could be beneficial for other populations and content areas. With some modifications, practitioners could use *Putting Your Best Foot Forward* to teach job search skills to other populations such as adults with visual impairments and transition-age youth with other disabilities. Furthermore, the group training method used in the program may also hold promise for teaching other skills (e.g., career exploration) to youth with disabilities, as researchers have used this method effectively in similar contexts with youth (i.e., a career choice intervention; Koivisto, Vinokur, & Vuori, 2011; Vuori, Koivisto, Mutanen, Jokisaari, & Salmela-Aro, 2008). After completion of the research study, the program materials will be available (if interested, contact the first author).

Results indicate that youth with visual impairments could benefit from instruction in additional areas (i.e., differences between sponsored work experiences and paid jobs, impact of employment on SSI benefits) during job search training or through supplementary instruction or services. Infusing content on social security benefits and work incentives into future job search interventions would provide youth (and their families) with accurate information about the impact of paid jobs on these benefits. Intervention providers, VR counselors, and other professionals need to have accurate, up-to-date knowledge about social security work incentives, particularly those that apply to students.

When implementing WIOA requirements for work-based learning experiences and workplace readiness training, VR agency personnel should examine their practices regarding provision of sponsored work experiences and consider potential long-term implications for youth

with disabilities. Offering some work experiences for youth is certainly desirable, but ongoing access to sponsored work experiences may have unintended consequences, such as discouraging youth from seeking a paid job and developing the skills needed to find a job independently in the future. Rather than relying exclusively on sponsored summer work experiences, an alternative model might involve a progression of activities where youth have access to sponsored work experiences but must assume increasing levels of responsibility for securing their own paid jobs. For example, such a model could begin with a sponsored work experience, followed by sponsored work with job search training (or job search training alone), and then eventually provide youth with support in finding their own paid job. This progression fits within WIOA's requirements for provision of pre-employment transition services for youth with disabilities.

Conclusion

This study is the first known investigation of a job search intervention for youth with disabilities, and specifically for youth with visual impairments. Results provide initial evidence of the effectiveness of the *Putting Your Best Foot Forward* job search program in increasing job search knowledge and behavior. Teaching job search skills to transition-age youth and supporting and encouraging them to find a job on their own may have important benefits for youth. However, offering repeated sponsored work experiences without providing job search training and experiences may hinder motivation to seek paid employment. Practitioners who work with youth with disabilities should consider the purpose of sponsored work experiences, and whether their current model is achieving its desired outcomes. Further research is needed to extend this study by examining the effects of the job search program under different contexts, over time, and on employment outcomes.

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Table 1

Descriptive Statistics for Job Search Knowledge, Behavior, and Self-Efficacy at Pre-test and Post-test

Measure	All (n = 42)		Comparison (n = 23)		Intervention (n = 19)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Job search knowledge						
Pre	0.36	0.13	0.39	0.11	0.33	0.14
Post	0.38	0.15	0.35	0.10	0.41	0.18
Job search behavior						
Pre	3.93	2.82	3.52	2.78	4.42	2.87
Post	5.26	3.35	3.30	2.85	7.63	2.19
Job search behavior self-efficacy						
Pre	7.35	1.35	7.30	1.30	7.42	1.44
Post	7.99	1.28	7.66	1.38	8.40	1.03
Job search outcomes self-efficacy						
Pre	7.11	1.66	6.74	1.46	7.56	1.80
Post	7.51	1.38	7.11	1.24	7.98	1.42