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Project H.I.R.E.: An Online Employment Preparation Program for
College Students who are Blind or Visually Impaired

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Abstract

Youth with visual impairments (VI) have educational attainments that are similar to youth without disabilities, yet their employment rates are consistently lower. The purpose of this study was to develop, implement, and evaluate an online employment preparation program designed specifically for college students/recent graduates with VI, to address this problem. Eight participants from across the country completed the eight-week program. Participation in the program resulted in increases in job search knowledge, career decision self-efficacy, and job search locus of control.

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Difficulty obtaining employment for youth with visual impairments (those who are blind or visually impaired) has long been a problem. The original National Longitudinal Transition Study (NLTS) and the NLTS-2 both documented that youth with visual impairments (VI) were less likely to obtain employment experience while in high school and were less likely to be employed after leaving high school compared to the general population of youth (Newman, Wagner, Cameto, & Knokey, 2009; Newman, Wagner, Cameto, Knokey, & Shaver, 2010). Obtaining early employment experiences is strongly associated with future employment for all youth, including youth with VI (e.g., Carr, Wright, & Brody, 1996; McDonnall, 2010; Author, in press).

In addition to providing data on the employment experiences of youth with VI, the NLTS-2 has provided current information about their educational status. Results indicate that the vast majority of youth with VI graduate from high school and a large majority attend postsecondary school (“Facts from NLTS2...,” 2005; Newman et al., 2009). These educational attainments compare favorably to the general population. The National Postsecondary Student Aid Study of 1995-96¹ also supports the finding that youth with VI are as likely as youth without disabilities to attend postsecondary school (Horn & Berktold, 1999). In addition, results from this study indicate that youth with VI are just as likely as youth without disabilities to persist in college, with 53.4% obtaining a degree or certificate and 12.7% still enrolled five years after beginning. It is after obtaining a college degree that differences between youth with VI and youth without disabilities appear: approximately one year following graduation, 57.8% of youth with

¹ This is the most recent published data focusing specifically on outcomes following postsecondary education for youth with disabilities.

VI were employed full-time compared to 73.2% of youth without disabilities. A higher percentage of youth with VI were unemployed (14.5% vs. 4.3%) or out of the labor force (12.8% vs. 8.3%). Of college graduates with disabilities, youth with VI had the lowest rate of full-time employment.

Youth with VI have educational attainments that are on par with youth who do not have disabilities, yet their employment rates are lower across all time points (during high school, after high school, and after college). Even obtaining a college degree does not equate to the same advantages in terms of employment for youth with VI. Youth with VI are often encouraged to focus on academics while in high school and college, limiting the early work experiences they obtain (O'Day, 1999). Although barriers external to the youth may exist, such as negative employer attitudes towards blindness, lack of early work experience and its associated deficits likely contribute to the difficulties college graduates face with employment. Associated deficits to limited work experiences are limited knowledge of the world of work, a limited network to aid in finding a job, and lack of knowledge about how to most effectively search for a job. Findings from the NLTS-2 support this idea, as youth with VI do not report using the most effective job search methods available (Newman et al., 2009). Very few of the unemployed youth were even looking for a job: 34.9%, a much smaller percentage compared to all other youth with disabilities who were unemployed. Adults with VI who experienced their vision loss at or near birth were also found to primarily use ineffective job search methods (O'Day, 1999).

Currently numerous interventions exist for transition-age youth with VI: most state VR agencies have one or more transition programs for this population, and many private agencies also offer transition programs. However, rigorous scientific evidence for effectiveness of these programs is lacking. In addition, these programs almost exclusively focus on the transition from

high school to college or employment. The transition services typically received by youth with VI graduating from college are traditional VR services, as formal programs targeting this group are generally not available. Research supports the need for a program with evidenced effectiveness, targeted to the population of college-educated youth with VI who are transitioning to employment. The intervention described here was created to address this need.

With limited experience working or looking for work, many youth with VI are expected to have limited job search knowledge and skills, as well as limited knowledge of the world of work in general. This lack of knowledge was the basis for the employment preparation program developed for college seniors and recent graduates with VI. Finding a job for youth with VI will be even more challenging if they do not know the best job search methods. In addition to job search information, youth with VI are likely to benefit from general job search assistance and advice as well as job search information specific to having a visual impairment. This information was provided to youth within a traditional career exploration/development model.

Although other employment preparation programs are available, several aspects of this program make it unique: it includes information specific to job searching for persons with a visual impairments, it is available entirely online in a fully accessible format, and it focuses on a group of transition-age youth that particularly need assistance moving into employment. The goals of the program presented here were helping youth with VI:

1. Learn more about themselves and how their personalities and interests influence their job choices
2. Learn more about jobs they are interested in
3. Gain job search knowledge and skills
4. Identify accommodations needed for jobs they are interested in

5. Learn how to talk to employers about blindness
6. Learn how to interview for a job

The purpose of the research project was to develop, implement, and empirically evaluate the effectiveness of a new intervention designed to lead to improved employment outcomes for college students/recent graduates with VI. The program was evaluated by measuring gains in participants' job search knowledge, self-efficacy associated with career decisions and job searching, and locus of control for job searching. There are four objectives of this article: (1) provide a description of this new intervention that was designed for college youth with VI who are or will soon be seeking employment, (2) report evaluation results for the intervention, (3) show an evaluation design context that can be used within the typical constraints for the target population (e.g., small samples, need for full participation opportunity), and (4) provide information about revisions to and current availability of the program. For the evaluation component, the following hypotheses were investigated:

1. Participation in the program will result in increased job search knowledge, self-efficacy, and locus of control.
2. Job search knowledge, self-efficacy, and locus of control will show stability prior to program participation.
3. Job search knowledge, self-efficacy, and locus of control gains after program participation will be maintained.

Method

Intervention Description

Project H.I.R.E. (which stands for Hip, Independent, and Ready for Employment) was the program developed for the intervention. It is an eight-week program that consists of modules

covering the following topics: (a) self assessment, (b) career exploration, (c) job search techniques, (d) resume development, (e) accommodations on the job, (f) talking to employers about vision loss, (g) interviewing, and (h) career portfolios and applying for jobs or volunteer activities. The content for each week came from popular job search resources and resources specific for blind consumers, internet resources, and original content developed by project personnel.

The entire program was conducted online. Each participant had a program contact person assigned to him or her. This contact person assisted the participant as necessary with any questions or problems encountered during the program. At the end of each module were “Check Your Understanding” (CYU) questions that allowed participants to review some of the major points of the content. After submitting their answers they received information about how many were correct and an explanation associated with the correct answers. Each module had assignments associated with it that participants were to complete and submit to their program contact person. The assignments included activities such as searching for information about jobs of interest on career information websites, conducting informational interviews, developing a resume, and conducting a mock interview. The program contact person reviewed the assignments and provided feedback as appropriate. Resumes were reviewed by a career services expert who provided detailed feedback and suggestions.

In addition to their contact with the program contact person, an interactive component was included. The purpose of this component was to develop a sense of group cohesion by allowing interaction among program participants and offering interaction with a peer mentor. The peer mentor was a successfully employed person, approximately the same age as participants, who was legally blind. A discussion board on Google Groups was set up for use by

program participants, contact persons, and the peer mentor. Participants provided a short autobiography to help them get to know each other and questions were posted each week by the peer mentor, primarily but not exclusively pertaining to the program content.

Participants

Participants were recruited through advertisements in newsletters and on listservs and personal contacts with personnel from VR agency, residential schools, private transition programs, and university disabled student services. Criteria for participation were legal blindness without significant additional disabilities, college student approaching graduation or recent college graduate, currently seeking employment or expectation of seeking employment after graduation, residence in the United States or Canada, and basic computer and assistive technology literacy that would enable participation in an online program. A total of 19 youth who met these criteria signed up to participate in the program; an additional youth who had graduated from college and was currently employed, but planned to seek other employment, was allowed to participate in the program. These youth were randomly assigned to receive the intervention in the Fall of 2009 or the Spring of 2010. A number of them dropped out before officially beginning the program. Fourteen youth began participation in the program, nine of whom completed more than half of the program. Three data points (at least one of which included post-intervention data) were available for eight participants.

Demographics are presented for youth who had at least one data point available (pre-intervention; $N = 18$) and for the subgroup of youth who had three data points available ($N=8$; see Table 1). The participants were located across the country, from California to Massachusetts to Alabama, and in Canada. A majority were male and White. They were in their early to mid-20s, with one exception. The majority of participants were recent college graduates rather than

currently in school. Most were legally blind rather than totally blind. Two participants reported mild additional disabilities (both had cerebral palsy). Only one participant reported no work experience, but half had held only one or two jobs. The total number of months of work experience ranged from 1 to 54 (for the participant who was currently working), with a mean of 13.53 (SD=13.03). The majority of youth had less than one year of total work experience (which included any number of hours per week working). A majority of the participants (55.6%) were interested in pursuing careers in the helping professions (e.g., social work, counseling, teaching). Other career interests included accounting, radio, business, and computer-related positions (e.g., programming or web design).

Outcome Measures

Although the ultimate objective of participation in the intervention was to assist youth with VI increase their chances of obtaining employment, intermediate outcome measures were necessary as longer-term follow-up of participants was not possible due to the project timeframe. These intermediate measures were associated with the goals of the intervention, and are also believed to be associated with obtaining employment.

Job search knowledge. Job search knowledge was measured with a standardized instrument, the Job Search Knowledge Scale. This scale consists of 60 true-false items, 12 items on each of the five subscales: identifying job leads, submitting direct applications to employers, writing resumes and cover letters, conducting employment interviews, and following up after the interview. Scores range from 0 to 60. The five scales represent the major areas of job search knowledge and skill needed to be successful in the job market (Dean, 2007). Content validity was provided by expert evaluation and reliability was established with internal consistency

estimates for the five scales ranging from .75 to .91 and test-retest values of .79 to .90 (Dean, 2007).

Self-efficacy (for career decisions and job search). Self-efficacy refers to a person's belief in his/her capability to perform specific actions or behaviors (Bandura, 1977). Self-efficacy is believed to influence behavioral choices, performance, and persistence, and research has supported this (e.g., Bandura, 1997; Stajkovic & Luthans, 1998). Situation-specific self-efficacy has in particular been found to be a useful construct as it relates to career development (Hackett & Betz, 1991; 1992). Self-efficacy specific to career decisions and job searching was therefore a key outcome for this study. A shortened version of the Career Decision Self-Efficacy Scale (CDSE, Betz & Klein, 1996), with additional self-efficacy items related to the job search process, was used to measure this outcome. Fourteen of the original 50 items of the scale (11 of them from the 25-item shortened version) were used, along with 14 items created for this study. The items taken from the CDSE focused on self-appraisal, occupational information, and goal selection (e.g., Determine what your ideal job would be, Use the internet to find information about occupations that interest you, Choose a career that will suit your abilities). The items created for the study focused on preparation for job searching, interviewing, and disability-specific items (e.g., Ask friends and relatives for names of people to contact about jobs, Prepare yourself for a job interview, Discuss your vision loss with a potential employer). One item from the CDSE fit with the job search items (Prepare a good resume), and was therefore included in that subscale. These 28 items were rated on a 5-point confidence scale (No confidence at all to Complete confidence), resulting in scores ranging from 28 to 160, with higher values indicating greater levels of self-efficacy.

The CDSE has been used extensively in research, and there is considerable evidence for its reliability and validity (Betz & Taylor, 2006). Internal consistency reliability estimates were calculated for the version of the scale used in this study, using a sample of youth with visual impairments or other disabilities (including study participant responses at time 1, $N=62$). The alpha coefficient for the entire scale was .94; the coefficients for the CDSE items and the job search items were .90 and .91 respectively.

Locus of control for job search activities. Locus of control (LOC) is a belief that one's actions affect life events—ranging from external (event control due to luck, fate, other people, or external circumstances) to internal (event control due to one's own actions) (Rotter, 1966). Those with a more internal LOC are more likely to be motivated to take action, as they believe their actions can influence events. An association between LOC and several employment outcomes has been established (see Ng, Sorensen, & Eby, 2006 for a review). The 32-item Job Search Attitude Inventory (Liptak, 2010) was used to measure LOC for job search activities. It is a measure of the motivation level of individuals who are job searching, with a focus on self-directed (internal LOC) and other-directed (external LOC) attitudes. It has four subscales: luck vs. planning, uninvolved vs. involved, help from others vs. self-help, and passive vs. active. Agreement ratings made on a 4-point scale yield total scores from 32 to 128. Higher scores indicate a more self-directed attitude, or internal LOC, for job search activities. Expert review provided content validity for the scale. Reliability estimates are adequate ($\alpha = .85$ to $.91$; Liptak, 2010). We conducted additional reliability assessments with a sample of youth with VI or other disabilities ($N=48$; study participants plus volunteers) and found total instrument alpha was adequate ($.79$), but low for subscales. Analyses were therefore limited to overall scores.

Research Design and Statistical Analyses

A true experimental design, the time-lagged crossover design for randomly assigned groups (Shadish, Cook, & Campbell, 2002, p. 268) or “switching replications design” (Trochim, 2006), was employed. Design diagram showing measurements (O) and intervention (X):

Group 1	O	X	O	O
Group 2	O	O	X	O

Trochim considers it one of the strongest experimental designs. This design has several features that make it preferred over a randomized controlled trial (RCT) in this research context. The design ensures that all participants will eventually receive treatment. It provides considerable information regarding measurement effects, and importantly, because samples are likely to be small, it is uniquely powerful because the treatment effect is evaluated “within subjects,” giving the design a substantial power advantage over a RCT where the treatment effect is tested “between subjects” (Jones & Kenward, 1989). The design was implemented by random assignment of participants to receive the intervention either in Fall 2009 or Spring 2010. Data were collected from each youth three times: either once before the intervention and twice following it (Fall group) or twice before the intervention and once following it (Spring group).

We used repeated-measures ANOVA to test the hypotheses. We used an alpha level of .10 for statistical significance. A lenient alpha level was selected because of the exploratory nature of the research and to increase power due to the small sample size.

Procedure

Following recruitment, occurring March through September 2009, 20 participants were randomly assigned to receive the intervention in Fall 2009 or Spring 2010. Participants completed the initial inventories and demographics in early October via a secure online survey site. Fall participants were engaged in the program mid-October to mid-December, although two

participants, by request, received access to online content until early January. All participants again completed inventories in late December or early January. Spring participants were engaged mid-January and the program officially continued until mid-March; three participants requested additional time to complete the program. The final set of inventories was completed by all participants in March or April. The content of the program was provided online via a secure website, which required individual usernames and passwords for access. The project coordinator received email notification of answers selected when participants completed the CYU items at the end of each module. Program contact people followed-up with participants who did not complete assignments to encourage participation.

Results

Ten participants were assigned to each group (Fall or Spring); of these nine (in each group) completed the first set of inventories and indicated that they would participate. Completion status for the Fall group was as follows: one person dropped out before starting, four completed half or less of the program, and four completed more than half of the program. Completion status for the Spring group was as follows: three people dropped out before starting, one completed less than half of the program, and five completed more than half of the program. Three data points were available for eight of the nine participants who completed more than half of the program content. Discussion board participation was limited, and participants did not use the peer mentor as a resource as intended.

Evaluation of intervention

The general analysis strategy was to (1) evaluate the intervention effect pre-post across groups combined (Hypothesis 1), (2) evaluate pretesting effects (Hypothesis 2, Spring group only), (3) evaluate intervention “persistence” – post-post testing (Hypothesis 3, Fall group only),

and (4) examine if the intervention effect was affected by pretesting. A 2 (Pre-Post Intervention) x 2 (Semester) mixed ANOVA analysis was employed. Pre-Post Intervention was the within-subjects factor, and Semester was the between-subjects factor (representing repeated pretesting before the intervention (Spring) or not (Fall)). A significant main effect for Intervention indicated an overall change in the outcome measures associated with the intervention. A significant Intervention x Semester interaction indicated that the intervention effect was affected by repeated pretesting.

Job search knowledge. The ANOVA yielded a significant intervention effect, $F(1,6) = 7.81$, $MSE = 6.93$, $p = .03$, partial $\eta^2 = .57$ and no Intervention x Semester interaction, $F(1,6) = .78$, $p = .41$. Job search knowledge increased pre- to post-intervention (Pre $M(SE) = 46.20$ (1.63); Post $M(SE) = 50.00$ (0.94)).

To evaluate the effect of repeated pretesting, a repeated-measures ANOVA was conducted on the two pre-intervention measures available from Spring participants: $F(1,4) = 3.61$, $MSE = 3.35$, $p = .13$, Pre1 $M(SE) = 46.20$ (1.46), Pre2 $M(SE) = 48.40$ (1.81). Job search knowledge scores showed a nonsignificant increase of about 2 points with repeated pretesting.

To evaluate intervention effect persistence, the same analysis was conducted on the two post-intervention measures available from Fall participants. There was maintenance of the intervention effect—no significant change in job search knowledge scores with repeated posttesting, $F(1,2) = .33$, $p = .62$, Post1 $M(SE) = 49.0$ (0.58), Post2 $M(SE) = 50.0$ (2.08).

Self-Efficacy. We examined the total scale, which included career decision items from Betz and Klein (1996) and items we developed related to job searching. We were interested in evaluating the specific effects of our intervention on the career decision and job-searching facets of the self-efficacy measure. Thus, we also analyzed the two subscales separately.

Total Career and Job Search Self-Efficacy. The intervention effect approached significance, $F(1,6) = 3.74$, $MSE = 44.56$, $p = .101$, partial $\eta^2 = .38$, with no Intervention x Semester interaction, $F(1,6) = .60$, $p = .47$. Self-efficacy increased pre- to post-intervention, Pre $M(SE) = 114.93(5.10)$, Post $M(SE) = 121.60(3.55)$.

The effect of repeated pretesting was not significant, $F(1,4) = 1.30$, $MSE = 33.85$, $p = .32$, Pre1 $M(SE) = 108.0(8.60)$, Pre2 $M(SE) = 112.20(7.44)$. There was not a significant change in total self-efficacy scores with repeated posttesting, $F(1,2) = .75$, $MSE = 2.00$, $p = .48$, Post1 $M(SE) = 127.00(4.04)$, Post2 $M(SE) = 128.00(3.61)$; therefore the intervention effect was maintained.

Career Decision Self-Efficacy subscale. The intervention effect was significant, $F(1,6) = 4.38$, $MSE = 23.46$, $p = .08$, partial $\eta^2 = .42$, with no Intervention x Semester interaction, $F(1,6) = .03$, $p = .87$. Career Decision Self-Efficacy increased pre- to post-intervention, Pre $M(SE) = 52.00(3.11)$, Post $M(SE) = 57.23(1.70)$.

The effect of repeated pretesting was not significant, $F(1,4) = .53$, $MSE = 12.15$, $p = .51$, Pre1 $M(SE) = 49.40(4.71)$, Pre2 $M(SE) = 51.00(4.44)$. Also, there was maintenance of the intervention effect—no significant change in career decision self-efficacy scores with repeated posttesting, $F(1,2) = 4.00$, $MSE = .17$, $p = .67$, Post1 $M(SE) = 58.67(1.20)$, Post2 $M(SE) = 58.00(1.53)$.

Job Search Self-Efficacy subscale. The intervention effect was not significant, $F(1,6) = 0.77$, $MSE = 9.96$, $p = .418$, partial $\eta^2 = .114$, and no Intervention x Semester interaction, $F(1,6) = 1.88$, $p = .22$. Job Search Self-Efficacy did not increase enough pre- to post-intervention to be statistically significant, Pre $M(SE) = 62.96(2.44)$, Post $M(SE) = 64.37(2.04)$.

The effect of repeated pretesting was not significant, $F(1,4) = 2.64$, $MSE = 6.40$, $p = .18$, Pre1 $M(SE) = 58.60(4.40)$, Pre2 $M(SE) = 61.20(3.51)$. The intervention effect was maintained, with no significant change in job seeking self-efficacy scores with repeated posttesting, $F(1,2) = 1.92$, $MSE = .217$, $p = .30$, Post1 $M(SE) = 68.33(3.28)$, Post2 $M(SE) = 70.00(2.31)$.

Locus of control for job search activities. The intervention effect was significant, $F(1,6) = 7.84$, $MSE = 23.66$, $p = .03$, partial $\eta^2 = .57$, with no Intervention x Semester interaction, $F(1,6) = 0.42$, $p = .54$. Job Search LOC increased pre- to post-intervention by approximately 7 points, Pre $M(SE) = 96.43(1.84)$, Post $M(SE) = 103.47(1.99)$.

The effect of repeated pretesting was not significant, $F(1,4) = 0.06$, $MSE = 14.40$, $p = .82$, Pre1 $M(SE) = 94.60(3.34)$, Pre2 $M(SE) = 95.20(1.72)$. Also, there was maintenance of the intervention effect—no significant change in job seeking self-efficacy scores with repeated posttesting, $F(1,2) = 0.09$, $MSE = 44.67$, $p = .79$, Post1 $M(SE) = 106.33(1.86)$, Post2 $M(SE) = 108.00(3.61)$.

Summary of intervention findings. Considering the four measures, three showed significant effects associated with the intervention with just eight participants. The average partial η^2 was .41 for all four measures – a *large* effect size. No significant effect of repeated pretesting was found on any measure, although there were some increase trends from the first to second pretest: three of the five participants consistently scored higher at the second pretest, whereas two did not. There was no reduction in the post-post test scores on any measure, meaning that the gains obtained following program participation were maintained.

Discussion

We have provided a description of a new online employment preparation program created for college students and recent graduates who are blind or visually impaired and an empirical

evaluation of its effectiveness. In addition, we have illustrated use of a research design and procedure uniquely well suited for a small-sample context (typical with this population) that allows everyone to participate. Results clearly and strongly support the effectiveness of the intervention in increasing job search knowledge, self-efficacy (for career decisions), and job search locus of control in the context of a true experimental design. Repeated pretesting with the outcome measures showed nonsignificant trend increases in job search knowledge and self-efficacy. Our post hoc speculation is that exposure to questions related to job search knowledge and efficacy issues related to specific behaviors may trigger increased awareness, knowledge seeking, and self-assessment cognitions that have positive consequences for specifics of employment preparation. Such possible effects will need confirmation by replication with a larger sample, but those adopting the intervention should be aware of this possibility. The effect of the intervention was clearly maintained over time, without any decrease in outcome measures two months post-intervention. Again there were increase trends that, speculatively, suggest continued cognitive involvement.

Returning to intervention effects, job search self-efficacy was the only outcome measure that did not show a statistically significant increase. A ceiling effect may be possible: the measure level was high at pretest (84% of maximum). Also, several participants did not complete the entire program, and the content associated with these items was primarily covered in the last half of the program.

Mechanisms of effectiveness. The intervention components and content addressed deficits related to knowledge of the work world and job search issues. Additionally, we addressed motivational and efficacy components that have relationships to employment outcomes. Thus, increases in the three outcomes measures are expected to result in better

chances of obtaining employment: increased sense of control, or internal LOC for job searching, should be associated with greater motivation for searching for a job and willingness to continue searching in face of adversity; higher job search knowledge should be associated with a more effective and informed job search; higher self-efficacy also should foster increased attention, heighten and sustain efforts, and increase persistence in job search activities.

Problems, challenges, and modifications. These results indicate that participation in the program, with completion of five or more weeks of the content, resulted in positive outcomes. A major challenge to implementation of the intervention was dropout from the program, either prior to its start or after the first few weeks. Of the 20 youth who originally signed up to participate, 9 completed more than half of the program. Examination of differences in job-related self-efficacy levels between participants prior to implementation indicated that youth with lower levels of self-efficacy – who might benefit most from the program – were less likely to even attempt participation. This may speak to the difficulties of involving this population of youth with VI in *any* such employment preparation program. Self-reported reasons for drop-out varied, but the majority indicated it was due to non-program reasons: time constraints (e.g., got too busy with school, then was too far behind to continue) or personal issues (e.g., personal illness, illness or death in family). Another challenge, and one that contributed to some of the dropout, was inability to complete the program in the 8-week time frame. Thus, time demands and lack of flexibility in terms of timeline for completing modules contributed to dropout.

The program was offered in an 8-week time frame to allow for group interactions among participants, with the goal of developing a sense of community and offering peer support, both through the peer mentor and the other participants. However, because participation in the discussion boards was limited, a sense of group cohesion did not develop and participants had

very limited interactions with the peer mentor. Feedback from participants (including dropouts) indicated these components were not found to be particularly valuable. This, along with the difficulty several participants had in completing the content in the 8-week time frame, led to a program revision that eliminated the group interaction and peer mentoring aspects and made the program available online in a modular, self-paced format. The complete revised program will soon be freely available from the authors' website.

Limitations

Even though strong intervention effects were obtained, the small sample size limited use of conventional standards for statistical significance. The sample size poses limits on generalizability in that findings may be idiosyncratic to our small sample, yet effects were quite strong. Additionally, participant attrition may have operated to select the most motivated participants. Of course, self-selection bias may be an issue, as it always is in non-mandatory program participation.

Conclusions

This article presents the first empirical evaluation of an employment preparation transition intervention for college students/recent graduates with visual impairments. This program was developed to address the problems obtaining employment many of these college graduates face. Dropout from the program was a substantial problem, which indicates that self-motivation is a prerequisite for participation in an online program such as this. Current evidence strongly supports intervention effectiveness for our "completers;" replication employing the new revised program along with the modular, self-paced format should provide the flexibility needed for a broader spectrum of youth with visual impairments to benefit from the program.

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Table 1

Participant Demographics

Variable	All participants		Completers	
	Percent	N	Percent	N
Age				
21 to 24	27.8	11	50.0	4
25 to 29	38.9	7	50.0	4
College status				
College student	38.9	7	25.0	2
Recently graduated ^a	61.1	11	75.0	6
Level of vision				
Legally blind	72.2	13	75.0	6
Totally blind	27.8	5	25.0	2
Race				
White	66.7	12	50.0	4
African American	27.8	5	50.0	4
Hispanic	5.6	1	0	0
Gender				
Male	55.6	10	50.0	4
Female	44.4	8	50.0	4
Number of jobs				
0-2	55.6	10	37.5	3
3-4	22.2	4	37.5	3

5-6	22.2	4	25.0	2
Total months of experience				
1-6	41.2	7	37.5	3
7-12	23.5	4	37.5	3
13-24	17.6	3	0.0	0
25+	17.6	3	25.0	2

^a This category includes the participant who was currently employed.