

# **Contribution of Social Support and Networking to Career Confidence Levels of Postsecondary Interns with Physical and Sensory Disabilities**

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**Kent State University**

**AHEAD Conference Presentation**

**7/22/22, 11:30am**

# Presentation Objectives

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1. Identify the career preparation experiences and service supports of interns in this program. Describe how year in school, gender, disability, and race/ethnicity affected these experiences and supports.
2. Describe findings of how social supports and networks align with participants' career preparation, and outcomes regarding career confidence.

# Study Goals and Demographics

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# Study Rationale

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- ❑ A 2021 summer employment internship for postsecondary students with physical or sensory disabilities provides career experiences and preparation content they may not otherwise receive.
- ❑ This study examines effects on interns' career preparation and confidence due to (1) the internship, (2) a presentation on career success, and (3) social networks.

# Study Rationale: Career Success

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- ❑ Workers with disabilities lack of access to more prestigious, professional, and higher-paid positions (U.S. Department of Labor, 2021)
- ❑ Paid employment or work experience is a highly-supported research-based predictor of both postschool education and employment (Mazzotti et al., 2021)
- ❑ Training on later career stages and advancement is often overlooked
  - ❑ Job maintenance/retention skills and person-environment fit are key to long-term success (C. Thoresen et al., 2004; Bayl-Smith & Wesson, 2015; Dawis, 2005; Swanson & Schneider, 2013)

# Study Rationale:

## Social Networks and Social Capital

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- ❑ Social capital consists of the benefits people derive from personal relationships and networks that provide positive outcomes, such as emotional support and an exchange of ideas and resources (Duncan et al., 2021).
- ❑ Langford et al. (2013) found that empirical studies of social networks and disability were noticeably absent in the literature
- ❑ Social supports for employment issues were highly valued by Canadian postsecondary students with mobility & sensory disabilities (Berry & Domene, 2015)
  - ❑ These included family members, friends, educational staff, employers, and community organizations
  - ❑ Peer supports and friendships were particularly importance during times of transition or when facing barriers

# Methodology: Recruitment

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## ☐ Internship Program

- ☐ Paid, full-time work aligned with their academic majors and career goals
- ☐ Accessible housing and transportation assistance, as needed
- ☐ Over 100 students from 30 colleges to date, 52 in 2021

## ☐ Contacts

- ☐ In-person campus visits, October – November
  - ☐ Meet with disability and career services professionals
  - ☐ Host an open house or give a presentation to students

# Methodology: Recruitment

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## ☐ Criteria

- ☐ Current college student, physical or sensory disability, competitive GPA
- ☐ Cover letter, resume, 3 letters of reference



# Methodology: Recruitment

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## □ Program Timeline

- 1/31/21: Application deadline
- February: Staff interviews each applicant, send acceptance
- March – April: internship placements confirmed
  - In-person, remote, or hybrid employment options
- May 17 – June 1: Start dates for internships
- July 14<sup>th</sup>: “Career Success” presentation
- July 30 – August 6: End dates of internships

# Methodology: Survey

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- **Pre-presentation survey sent June 16, 2021**
  - Open-response and Likert-type response items
- **Post-presentation survey sent September 13, 2021**
  - Substantial delays when host site's internet access was hacked
- **Descriptive data:**
  - Disability services received: IEP and VR
  - Career preparation services in high school
  - "Career Success" presentation comments

# Methodology: Survey Example Page

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Getting Started Most Visited Web Slice Gallery Summit Mall - Apple Store Other Bookmarks

Restart Survey Place Bookmark

Mobile view on ☒ Tools

In high school, how did you receive your accommodations and/or supports?

Through an Individualized Education Program (IEP) and special education

Through a 504 Accommodations Plan

I received no supports or accommodations

Other (please describe)

I'm not sure/I don't know

In high school, how did you receive your accommodations and/or supports?

Through an Individualized Education Program (IEP) and special education

Through a 504 Accommodations Plan

I received no supports or accommodations

Other (please describe)

I'm not sure/I don't know

Do you receive vocational rehabilitation

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# STUDY RESULTS

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# Study Participants: Demographic Results

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## ➤ **Disabilities (N = 42)**

➤ **Low Vision: 19.1%**

➤ **Blind: 4.8%**

➤ **Hard of hearing: 14.3%**

➤ **Deaf: 7.1%**

## ➤ **Mobility disabilities**

➤ **Wheelchair users: 21.4%; Nonwheelchair users: 21.4%**

➤ **Other disabilities: 11.9% (traumatic brain injury, stroke, speech)**

➤ **Secondary disabilities: 45.2% (anxiety, hydrocephalus, ADHD)**

# Demographic Results

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**Ages:** 18 – 43, mean of 22.9 years

**Sex:** 71.4% females

## Survey Responses

- **#1:** 42 of 52 interns 80.8% response rate
- **#2:** 34 of 52 interns 65.4% response rate
- **# 1 & 2**
  - 26 interns with matching IDs 50.0% response rate

# Demographic Results

Year in School	%	Race	%
Freshman	0.0	White	78.6
Sophomore	19.1	African American	4.8
Junior	14.3	Asian	4.8
Senior	33.3	Hispanic/ Latino	4.8
I will have graduated	26.2	White+ Asian	2.4
Other (please describe)	7.1	White+ Hispanic	4.8
Total	100		100

# CAREER-PREPARATION

Identify how year in school, gender, disability, and race/ethnicity affected experiences and supports

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# Study Participants: K-12 Services

	IEP	504 Plan	No supports	Other	Not sure/ DK	Received Services
<b>Hard of Hearing</b>	11.9%	0	7.1%	0	0	62.5%
<b>Deaf</b>	4.8%	0	0	2.4%	0	66.7%
<b>Mobility, Non-wheelchair</b>	11.9%	4.8%	2.4%	2.4%	2.4%	70.0%
<b>Mobility, Wheelchair</b>	19.0%	0	0	4.8%	0	80.0%
<b>Low Vision</b>	11.9%	2.4%	7.1%	0	0	66.7%
<b>Blind</b>	4.8%	0	0	0	0	100%

# Study Participants: VR Services

	Yes, active case	No, but applied or was referred	No, case closed/ not eligible	Not sure/ don't know	Received Services
Hard of Hearing	7.1%	0	4.8%	7.1%	37.5%
Deaf	0	0	2.4%	4.8%	0%
Mobility, Non-wheelchair	11.9%	0	0	11.9%	50.0%
Mobility, Wheelchair	16.7%	2.4%	2.4%	2.4%	70.0%
Low Vision	9.5%	0	2.4%	9.5%	44.4%
Blind	4.8%	0	0	0	100%

# Most Common Pre-internship Career Development Experiences

High School Career Preparation: Select all	Percent	Number
A course that taught me about jobs and careers	26.47	18
A workshop that taught me about jobs and careers	14.71	10
Online/ community resources provided by my school	22.06	15
Paid or unpaid work experiences during high school	27.94	19
Other (please describe)	8.82	6
<b>TOTAL</b>	<b>100</b>	<b>68</b>

# KEY INTERN CONCERNS

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- Highest overall category included disability-related work, health, discrimination, treatment, and accommodation issues
- Pre-Internship: 54.8% had these concerns
  - 73.9% were seniors or beyond
- Post-Internship: 55.9% had these concerns
  - 55.0% were seniors or beyond

Internship experiences did not resolve these concerns, especially related to keeping a job & succeeding in careers

Seniors and beyond appeared to be less concerned

# CAREER DEVELOPMENT ANALYSES

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- **Correlation and ANOVA analyses**
  - **Outcome Variables**
    - Confidence in choosing current career
    - Career Preparedness: Job search, interviews, keep job & succeed, resolve challenges
  - No statistical differences in either outcome due to:
    - Year in school
    - Gender
    - Disability
    - Race/ethnicity

# CAREER SUCCESS PRESENTATION

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# CAREER SUCCESS PRESENTATION

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- **Analyses**

- Intern Comments
- Correlations between demographic and preparation variables
- Career preparation converted into a composite variable
  - Career Preparedness: Job search, interviews, keep job & succeed, resolve challenges
  - Use of Rasch rating scale modeling
  - Model assumptions were tenable (Bond, et al. 2021)

# Intern Comments on Strengths: Job Finding, Interviews, & Being Hired

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Pre-Internship (n = 40)	Post-Internship (n = 34)
15 = interview & communication skills 14 = personal and work skill characteristics 5 = job search abilities, paper qualifications 2 = other skills, networking, experience	7 = communication, researching jobs 4 = confidence 3 = knowing what I want 2 = knowing my career path, self-advocacy (Very mixed responses)



# Intern Comments on Concerns: Job Finding, Interviews, & Being Hired

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Pre-Internship (n=40)	Post-Internship (n=34)
9 = interview & communication skills 6 = disability issues, disability disclosure 5 = job that's a good fit 3 = having less experience, job rejection [21 respondents with disability and disability-related concerns = 52.5%]	10 = disability discrimination 4 = disability disclosure, interviews 3 = choosing the right job, transportation [20 respondents with disability and disability-related concerns = 58.8%]

# Strengths: Keeping a Job, Succeeding, & Resolving Career Challenges

Pre-Internship (n=40)	Post-Internship (n=34)
15 = hard worker 11 = good communication skills w/co-workers 5 = prompt/punctual, detail oriented, committed 3 = motivated, respectful, ask Qs, go above/beyond 2 = consistent, team leader, ask for help, learn quickly, past experiences, speaking up	11 = work hard 4 = teamwork/collaboration 3 = adaptable, work ethic, problem solving, people skills 2 = determined, ask Qs for help, persistent

# Concerns: Keeping a Job, Succeeding, & Resolving Career Challenges

Pre-Internship (n=40)	Post-Internship (n=34)
<p>6 = health challenges impacting working</p> <p>4 = accommodations, how others treat me</p> <p>3 = being slow at work (meeting work expectations)</p> <p>2 = lack of experience, not outspoken or a self-advocate, forgetful</p> <p>[23 respondents with disability and disability-related concerns = 54.8%]</p>	<p>5 = health challenges per disability, disability issues/backlash</p> <p>3 = job that fits me</p> <p>2 = transportation, resolving work situations, motivation, communication</p> <p>[19 respondents with disability and disability-related concerns = 55.9%]</p>

# DESCRIPTIVE ANALYSIS

Item: Rated from 1 (low) to 6 (high)	Mean	Mode	SD	Range
<b>Learning about these topics was helpful to my future career success:</b>				
The stages of career development: career awareness, exploration, preparation, and assimilation	5.18	5	0.80	3-6
The phases of career success: career entry, maintenance, retraining, advancement, and exiting a job/career.	5.12	5	0.73	4-6
Job interview strategies: giving examples, asking about and observing the site	5.46	6	0.62	4-6
Identifying barriers to maintaining and advancing in my career.	5.54	6	0.50	5-6
Using allies, networks, advocacy strategies, and problem-solving to address barriers.	5.46	6	0.66	4-6

# COMMENTS: Career Success Topics

Which of these topics (career development stages, career success phases, job interview strategies, and identifying and resolving barriers) was most helpful to you, and why?

Topic	#	Exemplar Comments
Career Development	5	<ul style="list-style-type: none"><li>• I learned a lot about a day to day job in the business world.</li><li>• it gave me a sense of security in my ability to take these steps in the future.</li></ul>
Career Success	4	<ul style="list-style-type: none"><li>• No one ever talks about what to do once you have a career.</li></ul>
Job Interview Strategies	13	<ul style="list-style-type: none"><li>• I got to learn about the different questions I will be asked by the interviewer</li><li>• I had "failed" at an interview in the past which prevented me from getting the job that I wanted. The presentation was very helpful at calming my nerves by breaking the process of a job interview into smaller parts and giving advice on how to handle each obstacle.</li><li>• Super helpful because a lot of my fears were quelled and I feel like I now have a step up!</li></ul>

# COMMENTS: Career Success Topics

Which of these topics (career development stages, career success phases, job interview strategies, and identifying and resolving barriers) was most helpful to you, and why?

Topic	#	Exemplar Comments
Identifying and Resolving Barriers	15	<ul style="list-style-type: none"><li>• It helped me critically think more and develop a more out-of-the-box solutions</li><li>• Other job information sessions did not touch upon that.</li><li>• It helped me to be a better self-advocate and reflect on the environments that I can find ways to work in and those that might not be the best fit for me</li><li>• I always wondered how to deal with discrimination and what to do</li><li>• It is important to know who you can go to and who will be your ally where you're working.</li><li>• Helps to address and overcome obstacles that are likely to happen over the course of a continuously-changing career</li><li>• Essential to me because I always wondered how to deal with discrimination and what to do in that situation.</li></ul>

# Analysis of Career Success Presentation

	Rasch RSM Score		Sum Score	
	Pretest	Posttest	Pretest	Posttest
Mean	2.05	4.84	18.31	21.38
SD	2.48	2.45	2.90	2.61
Minimum	-3.35	0.20	12.00	24.00
Median	2.15	5.07	18.50	22.00
Maximum	7.57	7.57	24.00	24.00
Repeated Measures ANOVA: $F(1,25) = 33.422$ ; $p < .001$ ; partial $\eta^2 = .572$				

# INTERNSHIP & PRESENTATION ANALYSES

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- Career Preparedness grew substantially
  - Pre-Internship mean of 1.98 ( $SD = 2.35$ ) to 4.85 ( $SD = 2.49$ )
- Repeated measures ANOVA confirmed this growth
  - $F_{1,25} = 35.016$ ,  $p < .001$ ,  $\eta^2_{\text{partial}} = .583$
- Career choice confidence increased in stability
  - Pre-Internship mean of 5.16, Post-internship mean of 5.38
    - This was nonsignificant ( $F_{1,24} = 2.000$ ,  $p = .170$ ,  $\eta^2_{\text{partial}} = .077$ )



# ANALYSES OF SOCIAL NETWORKS

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- **Questions**
  - What social network factors contributed to interns' ratings of their career preparation?
  - What social factors contributed to their career choice confidence?
- **Data**
  - Matching pre/post-internship survey data ( $n = 26$ )

# Social Networks and Career Preparedness

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- **Analyses**

- Correlations examined relationships between social network items
- Factors identified
  - *Social Networks*: Family, friends, acquaintances, interests and hobbies
  - *Career Preparedness*: Job search, interviews, keep job & succeed, resolve challenges
- Items converted into two composite variables
  - Use of Rasch rating scale modeling
  - Model assumptions were tenable (Bond, et al. 2021)

# Social Networks & Career Preparedness

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- **Analyses**

- Rasch Scale Modeling
  - Composite variables entered into a path analysis model
    - Addresses potential confounding between predictors (Schumacker & Lomax, 2010)
    - Analyses conducted in R version 4.0.2
- Large effect size; partial  $\eta^2 = 0.572$

# RASCH MODEL ANALYSIS: Pre/Post Internship

Regression Coefficients						
Outcome Variable	Predictor	b	B	SE	Z	p
Career Preparedness, Time 1						
	Age	0.16	0.35	0.09	1.76	0.08
	Social Capital, Time 1	0.23	0.11	0.40	0.57	0.57
	Number of Work Experiences	0.35	0.38	0.17	2.02	0.04*
Career Preparedness, Time 2						
	Career Preparedness, Time 1	0.59	0.53	0.22	2.75	0.01**
	Social Capital, Time 1	-0.02	-0.01	0.42	-0.05	0.96
	Number of Work Experiences	-0.01	-0.01	0.20	-0.03	0.97
b = unstandardized coefficient; B = standardized coefficient						
* p < .05; ** p< .01; *** p < .001						



# RESULTS FOR EFFECTS OF SOCIAL CAPITAL

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- Correlations

- Positive among all Social Network factors Pre/Post Internship
- Significant Social Networks (4 factors) and Career Preparation (4 skills) across several individual factors and elements
- Social Networks and Career Choice Confidence were not significant
  - Social capital elements may have an indirect effect on confidence through career preparedness
  - Pre-Internship: Career Confidence was significantly associated with rated ability to keep a job ( $r = .675, p < .001$ )
  - Post-Internship: Career Confidence correlated significantly only with Pre-Internship level of confidence ( $r = .698, p < .001$ )

# RESULTS FOR EFFECTS OF SOCIAL CAPITAL

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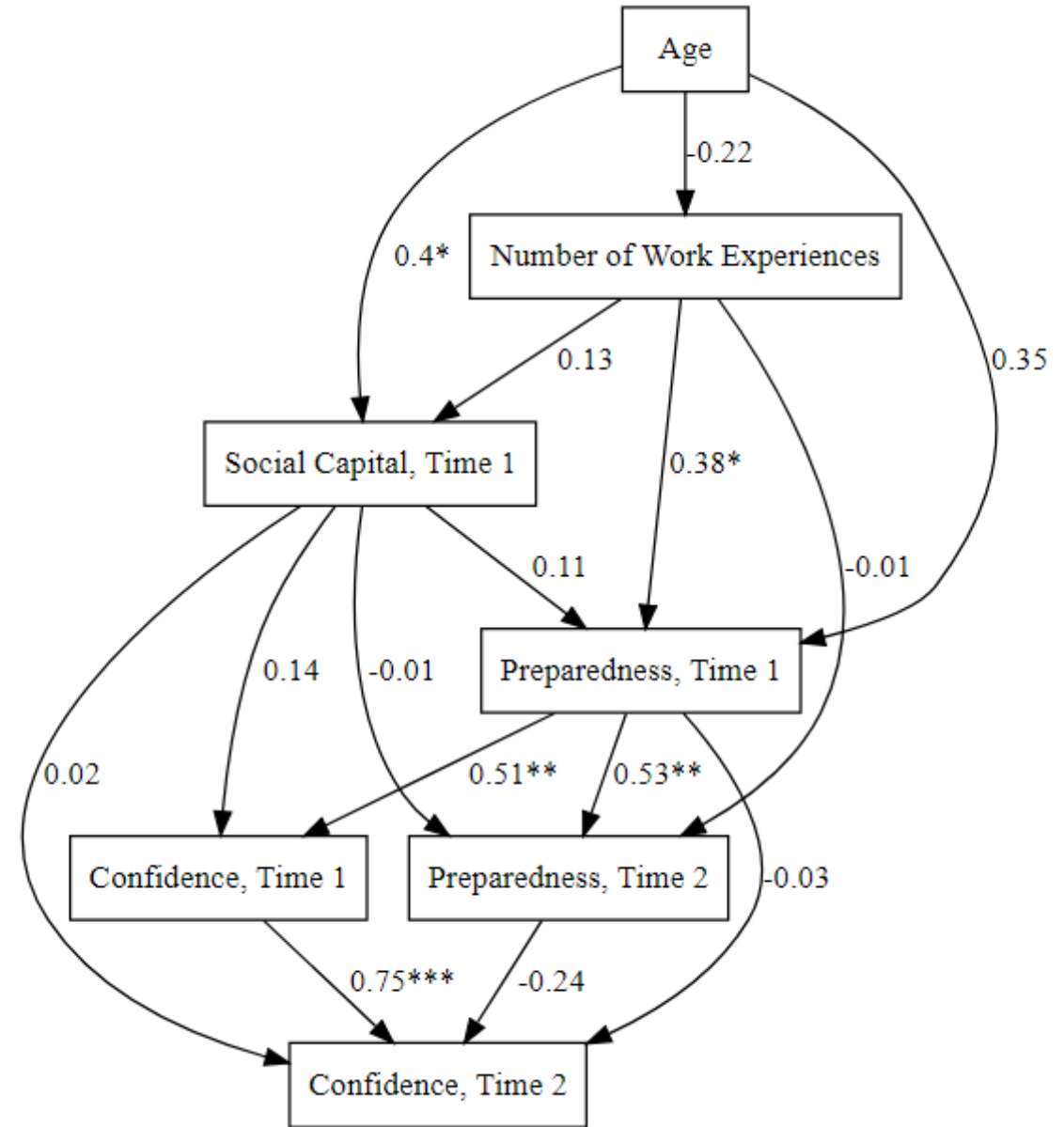
- **Path Analysis**

- Model successfully identified after a single iteration
- Global fit statistics indicated good model fit
  - ( $\chi^2 = 1.13$ ,  $df = 6$ ,  $p = .98$ ; CFI = 1.00; TLI = 1.00; RMSEA < .001; SRMR = .04)

- **Significant Paths**

- Career preparedness was significant for Pre/Post Internship Surveys
  - ( $p < .01$ )
- Career Confidence was significant for Pre/Post Internship Surveys
  - ( $p < .001$ )

# Path Analysis Model





# SUMMARY OF SOCIAL CAPITAL RESULTS

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- Career Preparedness initially improved Career Confidence
  - As preparedness levels grew, this effect disappeared, likely due to unequal growth
    - Interns with higher starting preparedness saw lower levels of increases on average
      - ( $r = -.469$ ,  $p = .016$ )
  - Interns' work experiences had a direct positive impact on career preparedness at the beginning of the study, but this direct effect disappeared at the end
- Overall, Career Preparedness increased, Career Choice Confidence remained stable
- Older interns reported higher overall levels of social capital
  - This did not translate into increased levels of Career Preparedness or Career Choice Confidence

# SUMMARY OF OVERALL RESULTS

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- Interns had mixed levels of
  - High school career preparation
  - IEP or Vocational Rehabilitation Support
- Interns showed significant growth on all elements of the Career Success presentation
  - Comments indicated this as new and important information

# SUMMARY OF OVERALL RESULTS

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- Social capital showed significant correlations for family and acquaintances with elements of career preparation
  - Intercorrelations suggest possible overall theoretical support for these combined factors
  - Families may be most helpful with early career preparation such as interviewing and being hired
  - Acquaintances helped most with resolving accommodation-related issues
  - Interns may have sought out individuals who had this particular type of expertise, varying by disability, personality, and setting issues

# SUMMARY OF OVERALL RESULTS

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- The lack of correlations between social supports and job skills may be due to interns not yet having faced these challenges
- Social capital, in whole or in part, still likely affects Career Choice Confidence and one's sense of adequate Career Preparation
  - Limitations likely affect this due to:
    - Small sample size
    - Short-term measurement to assess potentially long-term effects
    - Interns are high achievers: high initial ratings reduced potential variability for later ratings

# RECOMMENDATIONS

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- Provide students with physical & sensory disabilities with access to:
  - Comprehensive career development
  - Work experiences
- Provide information on career success strategies
  - Prepare students for a range of work-site and market-place challenges
  - Include real-world issues regarding
    - Hard and soft skills
    - Overt and covert work culture expectations
    - Problem-solving strategies

# RECOMMENDATIONS

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- Address disability-related job/career maintenance and advancement issues
  - Health and disability impacts
  - Self-advocacy
  - Building and maintaining social and career networks
- Workers with disabilities may be disadvantaged regarding relational inclusion through social networking and online networking supports (Kulkarni, 2012)
  - Social networking can assist in securing career promotions and support overall advancement

# RECOMMENDATIONS

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- Provide students with opportunities for disability-specific access to working adults and mentors, including virtual and online forums (Shoham & Heber, 2012)
  - Address informational, emotional and social network support as well as needs for tangible assistance
  - Online social networking can be important sources of social capital (Martínez-Alemán & Wartman, 2008)
  - University staff can use social media to promote and develop social capital (Alemán et al., 2012)

# Questions and comments?

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