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Employer Knowledge and Attitudes Toward Individuals

who are Blind or Visually Impaired as Employees

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Abstract

Introduction: This study investigated employers' knowledge about how persons who are blind or visually impaired perform typical job tasks (i.e., use of accommodations), how this knowledge relates to employers' attitudes about these individuals as employees, and where employers seek help with job accommodations.

Methods: Businesses from four states were contacted by telephone to request participation; surveys were completed by 160 randomly selected businesses and 37 businesses referred by vocational rehabilitation (VR) agencies, yielding a total sample of 197. A 5-item instrument measured employers' knowledge about how blind or visually impaired persons complete typical job tasks and an 11-item instrument measured employers' attitudes toward blind or visually impaired persons as employees.

Results: A majority of employers (67%) could not identify how blind or visually impaired persons perform any of the typical job tasks. Employers referred by VR agencies were more likely to identify correct strategies than employers in the randomly identified sample. Knowledge levels were associated with attitudes toward blind or visually impaired persons as employees. Only 8.8% of the randomly identified sample cited an appropriate source of information about accommodations; 49.7% cited a secondary source, and 41.5% were not able to identify an appropriate source.

Discussion: Most employers have limited or no knowledge about how blind or visually impaired persons perform routine job tasks. Those employers with greater levels of knowledge also had more positive attitudes towards blind or visually impaired persons as employees. It is positive that many employers were aware of an appropriate or secondary source of information about accommodations, and would therefore be likely to find such information if needed.

Implications for Practitioners: Providing education to employers and human resources professionals about job accommodations, including where to find additional information, is necessary and would be an appropriate strategy to use when interacting with employers.

Employer Knowledge and Attitudes Toward Individuals who are Blind or Visually Impaired as Employees

Estimates from the Bureau of Labor Statistics' national labor force data indicate that fewer than one million people who are blind or visually impaired were employed in 2012, compared to more than 142 million people without visual impairment who were employed (Bureau of Labor Statistics, 2013). Because this represents such a small part of the total labor force, most people, including employers, have limited exposure to and knowledge about blindness and visual impairment. Consequently, employers may not be aware of the available job accommodations, in the form of assistive technology (AT), adaptive techniques, or environmental adaptations, that enable a person who is blind or visually impaired to function effectively at work. Without this knowledge about job accommodations, employers are likely to have difficulty understanding how someone who is blind or visually impaired can perform the jobs for which they hire.

Negative employer attitudes have consistently been identified as one of the most significant barriers to employment for blind or visually impaired persons (Crudden & McBroom, 1999; Crudden, Williams, McBroom, & Moore, 2002; Kirchner, Johnson, & Harkins, 1997). In a recent study, rehabilitation professionals reaffirmed the belief that most employers exhibit negative attitudes towards this population (Authors, 2013). When asked about the best ways to encourage an employer to consider hiring a person who is blind or visually impaired, the most common response by these professionals was to provide information about accommodations and AT. This suggests that providing information to increase employers' knowledge about how a blind or visually impaired person could function on the job may be a way to improve employer attitudes towards this population. As a first step towards exploring this, the present study

investigated employers' knowledge about how blind or visually impaired persons perform various typical job tasks and how this knowledge relates to employers' attitudes about these individuals as employees.

Employer Knowledge and Job Accommodations

Job accommodations, including the use of AT, are used to assist qualified persons with disabilities perform essential job functions. Which accommodations are needed depend upon the individual and their degree of vision loss but can include simple changes to the work environment, such as adjusting lighting or providing magnifiers, to more complex accommodations using screen readers or Braille (Loy, 2013). Many employers report lack of knowledge and concerns about job accommodations. A large nationally representative survey of employers was conducted to examine their perspectives about employing people with disabilities (Domzal, Houtenville, & Sharma, 2008). The results documented that uncertainty about how much job accommodations might cost and the actual cost of providing accommodations are considered major challenges to hiring someone with a disability. Lack of knowledge or information was cited by 39.7% of employers as a challenge while 32.2% cited discomfort or unfamiliarity as a challenge in hiring persons with disabilities. Disability awareness training and assistive technology were two of the top five strategies selected that would be helpful in hiring persons with disabilities.

Several smaller studies have also documented employers' lack of knowledge about job accommodations. A study concerning knowledge and use of workplace supports for people with disabilities indicated that employers have limited knowledge and awareness of the supports and accommodations available (Unger & Kregel, 2003). This study also documented that employers often rely on internal organizational resources (e.g., human resources department) to deal with

accommodations. Over 30% of members of the Society for Human Resource Management (SHRM) identified “lack of supervisor knowledge of which accommodation to make” as a barrier to employment and advancement of persons with disabilities (Bruyere, Erickson, & VanLooy, 2006). A survey of human resources and line managers found that inadequate training about workplace accommodations and the Americans with Disabilities Act (ADA) represent barriers to employment of persons with disabilities (Chan, Strauser, Maher, Lee, Jones, & Johnson, 2010), and employers’ knowledge about the ADA and job accommodations were the most significant factors in predicting commitment to hiring persons with disabilities. No research was found that addressed knowledge about accommodations for blind or visually impaired persons, but one study did document that employers consider blindness to be one of the most difficult disabilities to accommodate (Lee, 1996).

Employer Attitudes

Employer attitudes towards persons with disabilities is a popular topic that has received considerable research attention. Despite negative employer attitudes being considered a major barrier to employment for blind or visually impaired persons, research in this area specific to this population is very limited. Two older studies incorporated questions about people from a variety of disability groups, including persons who are blind (Fuqua, Rathburn, & Gade, 1984; Williams, 1972). Both clearly indicated that employers expressed greater concerns about hiring persons who are blind compared to persons with other disabilities. More recent studies have also documented that employers consider blind or visually impaired persons to be difficult to hire for their positions (Gilbride, Stensrud, Ehlers, Evans, & Peterson, 2000; Inglis, 2006). These studies provide support for the idea that blind or visually impaired persons experience attitudinal barriers

from employers, but they did not provide an actual measure of employer attitudes towards hiring this population.

Importance of Measuring Employer Attitudes

Employer attitudes are important because of their assumed association with hiring behavior. By definition, attitudes can be linked to behaviors in that they represent a predisposition to respond in a predictable manner based on positive or negative evaluations of a particular group (McCaughney & Strohmer, 2005). An extensive meta-analysis conducted by Glasman & Albarracín (2006) found that attitudes do predict behaviors, primarily when the attitudes are strong, accessible, and stable over time. Attitudes can motivate behavior and are most predictive of behaviors when the attitudes assessed are specific rather than global (Ajzen & Fishbein, 1977). Research has consistently demonstrated that bias and negative attitudes towards individuals with disabilities not only lead to discrimination in hiring, but also lead to decreased opportunities for promotion, position placement, limited training opportunities, lack of acceptance among coworkers, lower salaries, and workplace harassment (Braddock & Bachelder, 1994; Hernandez, Keys, & Balcazar, 2000; Holzbauer, 2004; Jones, 1997; Jones & Stone, 1995). Given previous research linking both attitudes and behavior, and specifically, employer attitudes and behavior relating to individuals with disabilities in the workplace, it is critical to measure the attitudes that employers have towards individuals who are blind or visually impaired.

Relationship Between Knowledge and Attitudes

There are multiple theories on how attitudes are formed and changed, and many of them propose a link between knowledge and attitudes. One theory, known as the ABC Model of Attitudes (Hilgard, 1980) contends that attitudes are linked to three components: affect (i.e. thoughts and emotions), behavior (i.e. overt actions), and cognition (i.e. knowledge and beliefs).

According to this theory, attitudes can be formed based on any of these components or a combination of them. Some attitudes may be primarily based on emotions or experiences, but others may be influenced by knowledge. Research has linked knowledge to attitudes about individuals with disabilities by demonstrating that negative attitudes can be improved by increasing knowledge (e.g., Hunt & Hunt, 2004; Campbell, Gilmore, & Cuskelly, 2003; Lee & Rodda, 1994).

Purpose of the Study

In summary, research has documented that most employers are not knowledgeable about job accommodations, including AT, for persons with disabilities, and the limited research available indicates that employers exhibit negative attitudes or concerns about hiring blind or visually impaired persons. These attitudes are considered important because of the known link between attitude and behavior (i.e., hiring someone who is blind or visually impaired). The purpose of this study was to investigate employers' knowledge about job accommodations for blind or visually impaired persons and the relationship between this knowledge and attitudes towards blind or visually impaired persons as employees. Specific questions investigated were:

1. What level of knowledge do employers have about how someone who is blind or visually impaired can perform specific job functions (i.e., knowledge about job accommodations /AT available)?
2. Do employers know where to seek help with accommodating someone who is blind or visually impaired?
3. Is there a relationship between employers' knowledge level and their attitudes towards blind or visually impaired persons as employees?

Method

Participants

Persons in hiring positions from randomly selected businesses in Alabama, Montana, New Jersey, and Texas and vocational rehabilitation (VR) agency business contacts in two of those states were targeted for participation in the study. (A request was made to all four agencies to provide names of their business contacts; only two agencies provided names for the study.) The four states were selected based on their VR agencies' reported involvement in business interactions, as this study is one component of a larger study investigating the effectiveness of VR agencies' business interaction practices. Names of 46 business contacts of the VR agencies were provided and 37 interviews were completed, for an 80.4% response rate. Contact was attempted with 1,953 randomly selected businesses with the following disposition: 160 completed interviews (the targeted number, based on the larger research project's goals), 165 disconnected numbers, 286 refused to participate (due to either personal reasons or company policy), 42 indicated that their hiring was done via temporary agencies or over the Internet, 123 indicated they would call back but did not, 416 requested a call back but were not called because the number of targeted completed responses had been reached, and 757 did not answer the phone. The response rate for those randomly selected businesses reached by phone was 18.5%. The total sample size for the study was 197.

Data Collection Procedure

Businesses were contacted up to eight times by telephone to request their participation in the study. Trained interviewers made the contacts and completed the survey instrument over the phone with the participants. The interviews took approximately 10 minutes to complete. (At their request, four of the VR agency business contacts completed the survey online rather than by phone.) Interviews were completed between August 2012 and January 2013.

Measures

Knowledge. Items to measure an employer's knowledge about how someone who is blind or visually impaired can perform specific job functions were developed. Fourteen items (covering seven different job tasks, asked individually for persons with low vision and persons who are blind) were initially developed and subjected to a pilot test with 85 persons in hiring positions. Responses to the items on the pilot test illustrated that many people answered the questions about each task for the two groups (low vision and blind) identically. Because having the two items for each job task substantially increased the length of the scale and did not provide additional information in many cases, a decision was made to consolidate the items and ask one question for each job task that included persons with low vision or blindness. In order to reduce the length of time required to complete the instrument as much as possible, the two job tasks that did not discriminate as well as the other items (i.e., more people answered items correctly) were removed from the instrument, resulting in five knowledge items retained for this study.

The five job tasks inquired about were: how someone who is blind or has low vision can (a) access pre-printed material (specifically a document already in regular print); (b) access a computer to use the internet, email, or utilize standard computer software; (c) use general office equipment, such as a copier or multi-line telephone system; (d) utilize standard industrial equipment or machinery; and (e) handle a cashier position. Interviewers marked participants' responses as "yes", "no," or "not sure how." If the respondent stated that he/she knew how someone could perform the job task, he or she was asked to indicate how someone could do that task. The responses to the "how" portion of the question were scored for accuracy.

Scoring of knowledge items. To develop the coding scheme, four researchers reviewed responses from the pilot test together and discussed how those responses would be coded for

accuracy. After a list of common correct and incorrect responses was identified, the researchers coded select responses as a group. Correct responses consisted of a range of job accommodations, including low- to high-tech assistive technology and adaptive techniques. After general consistency was reached in scoring the initial items together, three researchers coded the responses independently. Each coder submitted their coded responses to the fourth researcher who compared the codes for discrepancies. The goal was for a final consistency rate of at least 80% among the three coders across the five items. After initially coding responses independently, the percentage of consistency across the five items was 63%. The coders reconvened to reach consensus regarding how the most common discrepancies should be coded. The common discrepancies were then recoded based on a revised coding scheme, resulting in a new overall consistency rate of 90.1%. Remaining inconsistencies were discussed by the group to reach a consensus on scoring of all responses.

Seeking Help with Accommodations. A single open-ended question was asked to determine whether employers knew an appropriate place to receive assistance with providing job accommodations: “Who would you contact if you had questions about how to accommodate someone who is legally blind in your workplace?” Responses were categorized into one of 15 categories which were developed based on the responses (rather than pre-determined categories). These categories were further classified as (a) identified an appropriate source of information, (b) identified a secondary source of information, which was expected to ultimately result in the information needed, and (c) did not identify an appropriate source of information.

Employer Attitudes. An instrument to measure employer attitudes towards people who are blind or visually impaired as employees was developed and evaluated as part of the larger research project. The instrument consisted of 15 items that fit into two subscales: productivity of

the person and challenges to employing a person who is blind or visually impaired. A formal instrument development procedure was followed and the reliability and validity of the instrument was assessed, as described in detail in Author (in press). Based on these psychometric analyses, four items were removed from the attitude measure, resulting in an 11-item instrument consisting of a 5-item productivity subscale and a 6-item challenges subscale. The productivity factor and the challenges factor are hypothesized to be components, or lower-order factors, of attitudes towards blind or visually impaired persons as employees, and therefore the scores on the subscales are combined for an overall attitude score. Coefficient alpha for the entire scale was .87 (.88 for the productivity subscale and .75 for the challenges subscale). Initial evidence for its construct validity was provided by factor analysis and criterion validity by large differences in scores for people who had hired someone who is blind or visually impaired compared to those who had not. The potential range for the scale was 0 to 66, with higher scores indicating a more positive attitude towards blind or visually impaired persons as employees. The actual range for this sample was 6 to 65 and the mean was 34.68 (SD=14.16). The mean for the VR contact sample was 44.80 (SD=11.54) and the mean for the randomly identified sample was 32.20 (SD=13.65). Some participants had missing responses on the attitude items; if only one or two items were missed, the missing items were imputed with the individuals' mean score on the remaining items in order to calculate a score on the scale. A total of 188 participants had a valid score on the attitude scale.

Results

Participants were asked to respond to questions about their position type, job tenure, and the positions they typically hire for. Employee size of the business (at the worksite) was available for the 160 randomly identified employers. The majority of respondents were managers

(55.8%); other positions included Human Resources personnel (19.8%), owners (10.2%), supervisors (7.6%), or other roles (6.6%). Employers reported working in their current position from 1 month to 50 years, with an average of 10 years ($SD = 10.63$). The majority of employers (58.8%) represented small business sites of less than 20 employees. Over one-third worked at mid-sized sites (35.6%) and a few represented larger businesses with greater than 100 employees on-site (5.7%). The greatest percentages of participating employers make hiring decisions in areas of customer service (43.7%), office work (32%), and sales and marketing (23.9%). In addition, some employers (8.1%) indicated that they make hiring decisions for all positions at their company.

Employers' Knowledge about Specific Job Tasks

Performance on the knowledge instrument indicated that overall most employers are very limited in their knowledge about how someone who is blind or visually impaired can perform specific job functions. A high percentage of employers (67%) were unable to correctly identify ways in which any of the five tasks could be accomplished by someone who is blind or visually impaired. Less than a quarter of employers (23.4%) could correctly identify a way that a blind or visually impaired person could accomplish one of the five tasks. A very small percentage of employers were able to identify ways in which more than one task could be completed (5.1% provided correct responses for two tasks, 2.5% for three tasks, 1.5% for four tasks, and only 0.5% for all five tasks).

Between 5.1% and 32.5% of the employers surveyed indicated that they were aware of ways in which a person with blindness or low vision could complete one of the job tasks (see Table 1). Employers were least aware of ways that individuals with blindness or visual impairments could use industrial equipment or handle a cashier position. Among employers who

believed they were aware of ways in which these jobs could be accomplished, many were unable to provide correct examples for how. Employers who were referred by VR were more likely to answer the knowledge items correctly than employers from the randomly identified sample.

Employers' Knowledge About Seeking Help with Accommodations

Table 2 presents the results of the responses to the open-ended question regarding where to seek help with accommodations, separated by VR contact versus randomly identified sample, for the 194 participants who provided a response. Appropriate sources were to contact VR ($n=33$), use the Job Accommodation Network (JAN; $n=2$), or ask the blind employee ($n=2$). Examples of secondary sources, which were expected to likely result in a referral to an appropriate source, were disability organizations, job service or employment agency, and the company's human resources department (HR) or corporate office. Examples of inappropriate sources were don't know, local or state government, and eye doctors. As would be expected, employers who were VR contacts were much more likely to provide an appropriate source. The most common response in the secondary sources category was HR/corporate office, with 21.4% of the entire sample providing this response. It is relevant to note that some of the responses classified as a secondary source were vague ("blind agency," "center that deals with blind people," "department that handles disabled individuals in the workforce"), rather than specific names that would indicate awareness of an actual source.

Relationship Between Employers' Knowledge and Attitudes

Performance on the knowledge instrument was coded into 3 categories to investigate the third research question. The categories were (a) no knowledge (no correct responses, $n=124$), (b) some knowledge (correctly identified ways in which 1 or 2 tasks could be completed, $n=55$), and (c) moderate to high knowledge (correctly identified ways in which 3 or more tasks could be

completed, $n=9$). Using ANOVA, a significant relationship was found between knowledge scores and attitude scores [$F(2,185) = 14.47, p < .01, \eta^2 = .14$]. Employers with no knowledge had a mean attitude score of 31.41 (SD = 12.89), those with some knowledge had a mean score of 39.26 (SD = 14.37), and those with moderate to high knowledge had a mean score of 51.67 (SD = 10.39). A post-hoc Tukey HSD test indicated that all three groups were significantly different from one another at an alpha level of .05. Another measure of association, Pearson's correlation, was also used to evaluate the relationship between knowledge score and attitude score. The correlation value was .37 ($p < .0001$), indicating a moderate relationship between employers' knowledge and attitudes towards blind or visually impaired individuals as employees.

Discussion

This study found that most employers have limited or no understanding of how people who are blind or visually impaired can use job accommodations to perform routine job tasks. Knowledge levels for a randomly identified sample of employers were very low, while levels for a sample of employers identified by VR agencies were substantially higher. However, more than one-third of the VR contact sample also had no knowledge about how someone with a visual impairment could perform the job tasks and just slightly more than one-fifth demonstrated moderate to high knowledge. This finding of limited knowledge is not surprising, given that a relatively small number of people who are visually impaired are in the labor force, but this is the first research to document employer knowledge in this area.

Many employers were also unaware of where to find information about accommodating someone with a visual impairment in their workplace. Knowledge in this area was greater for the VR contact sample than the randomly identified sample, with 65.7% identifying an appropriate

source of information, and 25.7% identifying a secondary source. Only 8.8% of the randomly identified sample cited an appropriate source of information, and 41.5% of the sample was not able to identify an appropriate source to contact. The remaining portion of the randomly identified sample (approximately half) were able to name a secondary source of information that would likely result in a referral to an appropriate source. It is encouraging that more than half of this group would likely be able to find information about accommodations for this population if needed. Without direct knowledge of a source of information about accommodations, it would be challenging for an employer to consider hiring someone who is blind or visually impaired.

Because a relatively large percentage of the sample (21.4%) identified HR as a source of information for accommodations, the responses of the 25 people in the randomly identified sample who were employed as HR personnel were evaluated. Of these HR respondents, 20% identified an appropriate source of information, 40% identified a secondary source, and 40% could not identify an appropriate source of information. This indicates that many HR personnel are not well informed about how to find information about job accommodations or AT for blind or visually impaired persons and ongoing efforts to improve their knowledge is indicated.

Employers' level of knowledge about performance of job tasks had a significant association with their attitudes towards people who are blind or visually impaired as employees. As level of knowledge increased, so did average scores on the attitude measure, with significant differences exhibited between all knowledge levels (no knowledge, some knowledge, moderate to high knowledge). The correlation between the variables indicates that 13% of the variance in attitudes can be explained by knowledge. Although these results do not provide evidence that increasing knowledge improves attitudes, a clear association between the two variables is demonstrated. Given this association, it is important to further evaluate the relationship to

determine if increasing knowledge can improve attitudes towards this population as employees, utilizing an experimental design.

In terms of employer attitudes towards disabilities, blindness and visual impairment are unique in that most people do not know how someone with a visual disability could accomplish routine work tasks. For example, only 5% of the randomly identified sample knew how a person with blindness/low vision could access a computer. Given that a majority of jobs in the U.S. require use of a computer (in 2003, the most recent official data available, the percentage of jobs was 55.5% [Bureau of Labor Statistics, 2005]), it is not surprising that employers who are unaware of how someone could do this would not view such a person favorably as an employee. A basic criterion for hiring someone for any position is that the person be capable of performing the job; if the employer is not aware of how the person could perform the job, it is not likely he or she would be considered.

Implications

Our findings about lack of knowledge of both how to accommodate specific job tasks and where to get information about accommodating someone with vision loss is consistent with previous research about persons with disabilities in general. Employers who were contacts of VR had more knowledge about how specific job tasks could be performed, were more likely to know where to get information about job accommodations, and had better attitudes toward blind or visually impaired persons as employees than employers who were randomly identified. This supports the value for VR agencies of establishing relationships with employers. Establishing these relationships may take considerable time and effort, but can result in positive benefits for blind or visually impaired consumers. It also supports the value of individual rehabilitation counselors marketing themselves as resources about job accommodations to employers and

educating employers about workplace accommodations, including AT, used by blind or visually impaired persons.

Some employers said they would seek information about job accommodations for a person who is blind or visually impaired from the internet; local, state, or federal agencies; or other private or public agencies. Having a strong internet presence where information about job accommodations can easily be found and having related agencies and service providers informed of where to refer inquires about job accommodations are reasonable strategies to further address this lack of knowledge. A substantial portion of employers indicated they would contact their HR office to obtain information about job accommodations. Consequently, efforts by rehabilitation professionals to target persons in HR departments is also an important strategy in insuring that employers get the correct information and referral sources for assistance with job accommodations.

As employers become more knowledgeable of how people who are blind or visually impaired can perform routine job tasks, their attitudes about blind or visually impaired persons as employees may improve. The strong relationship between the variables provides support for rehabilitation providers to utilize education about job accommodations and AT as a method to encourage employers to consider blind or visually impaired persons for employment. Rehabilitation providers currently use activities such as demonstrations of AT, presentations at professional or civic events, links to other knowledgeable employers, and/or promotional materials to increase employer awareness. Research to determine which educational strategies are most effective in increasing employer knowledge, and the ability of increased knowledge to improve employer attitudes, is needed.

Limitations and Future Research Directions

A few factors limit the generalizability of the results: obtaining the sample from only four states, the low response rate for the randomly identified sample, and having only 37 VR contacts as part of the sample. Self-selection bias is also a potential issue, in that we do not know whether the knowledge levels or attitudes of those that selected not to participate are the same as those who did. A univariate relationship was established between knowledge and attitudes; additional analyses are necessary to investigate the relationship between knowledge and attitudes in a multivariate model. Other variables may mediate the relationship between these variables and this can only be determined with a multivariate analysis. These analyses, which could include VR contact status, exposure to people who are blind or visually impaired, and other relevant variables, can determine which variables are most closely related to employer attitudes.

References

- Ajzen, I. & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888-918.
- Braddock, D. & Bachelder, L. (1994). The glass ceiling and persons with disabilities. Washington, D.C.: The Glass Ceiling Commission, U.S. Department of Labor.
- Bruyere, S. M., Erickson, W. A., & VanLooy, S. A. (2006). The impact of business size on employer ADA response. *Rehabilitation Counseling Bulletin* 49(4), 194-206.
- Bureau of Labor Statistics (2005). *Computer and internet use at work summary*. Retrieved from <http://www.bls.gov/news.release/ciuaw.nr0.htm>.
- Bureau of Labor Statistics. (2013). *[Unpublished data tables of specific disability questions in the Current Population Survey, 2012 Annual Averages]*. Washington, DC: Author.
- Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual & Developmental Disability*, 28(4), 369-379.
- Chan, F., Strauser, D., Maher P., Lee E., Jones, R., & Johnson, E. (2010). Demand-side factors related to employment of people with disabilities: A survey of employers in the midwest region of the United States. *Journal of Occupational Rehabilitation*, 20, 412-419.
- Crudden, A., & McBroom, L. W. (1999). Barriers to employment: A survey of employed persons who are visually impaired. *Journal of Visual Impairment & Blindness*, 93, 341-350.
- Crudden, A., Williams, W., McBroom, L. W., & Moore, J. E. (2002). *Consumer and employer strategies for overcoming employment barriers*. Mississippi State University.

- Domzal, C., Houtenville, A., and Sharma, R. (2008). *Survey of employer perspectives on the employment of people with disabilities: Technical report*. (Prepared under contract to the Office of Disability and Employment Policy, U.S. Department of Labor). McLean, VA: CESSI.
- Fuqua, D. R., Rathbun, M., & Gade, E. M. (1983). A comparison of employer attitudes toward the worker problems of eight types of disabled workers. *Journal of Applied Rehabilitation Counseling, 15*, 40-43.
- Gilbride, D., Stensrud, R., Ehlers, C., Evans, E., & Peterson, C. (2000). Employers' attitudes toward hiring persons with disabilities and vocational rehabilitation services. *Journal of Rehabilitation, 66*, 17-23.
- Glasman, L.R. & Albarracín, D. (2006). Forming attitudes that predict future behavior: A meta-analysis of the attitude behavior relation. *Psychological Bulletin, 132* (5), 778-822.
- Hernandez, B., Keys, C. & Balcazar, F. (2000). Employer attitudes toward workers with disabilities and their ADA employment rights: A literature review. *Journal of Rehabilitation, 66* (4), 4-16.
- Hilgard, E.R. (1980). The trilogy of mind: Cognition, affection, and conation. *Journal of the History of the Behavioral Sciences, 16*(2), 107-117.
- Holzbauer, J. J. (2004). Disability harassment of students in transition from school to work: Implications for rehabilitation counseling. *Journal of Applied Rehabilitation Counseling, 35* (4), 3-7.
- Hunt, C.S. & Hunt, B. (2004). Changing attitudes toward people with disabilities: Experimenting with an educational intervention. *Journal of Managerial Issues, 16*(2), 266-280.

- Inglis, C. (2006). *Blind people can do anything but not in my company: Employer attitudes towards employing blind and vision impaired people* (Unpublished master's thesis). Massey University, Albany, New Zealand.
- Jones, G. E. (1997). Advancement opportunity for persons with disabilities. *Human Resource Management Review*, 7 (1), 55-76.
- Jones G.E. & Stone, D.L. (1995). Perceived discomfort associated with working with persons with varying disabilities. *Perceptual and Motor Skills*, 81, 911-919.
- Kirchner, C., Johnson, G., & Harkins, D. (1997). Research to improve vocational rehabilitation: Employment barriers and strategies for clients who are blind or visually impaired. *Journal of Visual Impairment and Blindness*, 91, 377-392.
- Lee, B. A. (1996). Legal requirements and employer responses to accommodating employees with disabilities. *Human Resource Management Review*, 6, 231-251.
- Lee, T. & Rodda, M. (1994). Modification of attitudes toward people with disabilities. *Canadian Journal of Rehabilitation*, 7(4), 229-238.
- Loy, B. (2013). *Accommodation and compliance series: Employees with vision impairments*. Job Accommodation Network, <http://askjan.org/media/Sight.html>.
- McCaughney, T.J. & Strohmer, D.C. (2005). Prototypes as an indirect measure of attitudes toward disability groups. *Rehabilitation Counseling Bulletin*, 48 (2), 89-99.
- Unger, D. D. & Kregel, J. (2003). Employers' knowledge and utilization of accommodations. *Work*, 21, 5-15.
- Williams, C. A. (1972). Is hiring the handicapped good business? *Journal of Rehabilitation*, 38, 30-34.

Table 1

Percentages of Correct Responses for Knowledge Items

Knowledge Item	“Yes” Response ^a	Percent with Correct Response		
		Total Sample	VR Contact Sample	Randomly Identified Sample
Access pre-printed material	21.8% (43)	9.1% (18)	32.4% (12)	3.8% (6)
Access a computer	31.7% (62)	12.2% (24)	43.2% (16)	5% (8)
Use office equipment	32.5% (64)	22.8% (45)	43.2% (16)	18.1% (29)
Use industrial equipment	5.1% (10)	3.1% (6)	10.8% (4)	1.3% (2)
Handle a cashier position	7.1% (14)	2.5% (5)	10.8% (4)	0.6% (1)

^a Represents percentage of respondents who answered “Yes” to each item, indicating that they believed they knew how someone could perform the task.

Table 2

Employers' Knowledge About Seeking Help with Accommodations

Response Category	VR Contact Sample	Randomly Identified Sample
Appropriate Source	65.7% (23)	8.8% (14)
Secondary Source	25.7% (9)	49.7% (79)
Inappropriate Source	8.6% (3)	41.5% (66)