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**Employers' Intent to Hire People who are Blind or Visually Impaired:**

**A Test of the Theory of Planned Behavior**

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### **Abstract**

The purpose of this study was to examine the utility of the Theory of Planned Behavior (TPB) in explaining employers' hiring intentions of people who are blind or visually impaired (B/VI). Participants were 388 hiring managers who completed an online survey that included the four TPB construct measures (attitudes, subjective norms, behavioral control, and intent to hire). Confirmatory factor analysis (CFA) was used to determine the suitability of the measurement model and structural equation modeling was utilized to test the proposed structural model. The proposed TPB structural model provided good data fit; attitudes about productivity, subjective norms, and perceived behavioral control accounted for more than 61% of the variance in intent to hire people who are blind. Attitudes about productivity of a blind employee had the strongest relationship with intent to hire, followed by subjective norms and perceived behavioral control. Rehabilitation professionals who work with B/VI individuals should educate employers about how this population can perform the employers' jobs to improve attitudes about productivity. They should consider employers' subjective norms and perceived behavioral control, which could be influenced by providing disability awareness presentations to company employees and maintaining a relationship with employers, thus enabling them to have access to qualified applicants.

**Keywords:** employers, attitudes, intent to hire, blind, visually impaired

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A Test of the Theory of Planned Behavior**

The theory of planned behavior (TPB; Ajzen, 1985; Madden, Ellis, & Ajzen, 1992) is a well-validated and commonly used model for predicting behavioral intention, or one's intent to engage in a certain behavior, across a broad range of topics. According to the TPB, behavioral intention is determined by three factors: (a) attitudes related to the behavior, (b) subjective norms, and (c) perceived behavioral control. Attitudes relate to a person's own feelings about the behavior (e.g., Would it be good or bad to engage in the behavior?), subjective norms relate to one's perceptions of the general community and social norms surrounding the behavior (e.g., What do my coworkers or friends think about this behavior? Would they engage in this behavior?), and perceived behavioral control relates to belief in one's ability to perform the behavior (e.g., Would I actually be able to engage in the behavior?). According to the TPB, these factors jointly contribute to one's behavioral intentions, which have been the primary focus of most TPB research (Ajzen, 1985, Madden et al., 1992).

Behavioral intentions, or one's evaluation of how likely they are to perform a given behavior in the future, are used as a proxy or predictor for one's actual later behavior. As would be expected, the relationship between behavioral intentions and behavior is not exact; the relationship between intentions of actions can be weakened by discrepancies between perceived and actual behavioral control. This can occur when a person believes that they have a greater ability to perform the target behavior than they actually do or when there are unforeseen or unacknowledged barriers or response costs to performing the target behavior (Bamberg, Ajzen, & Schmidt, 2003; Sniehotta, Pesseau, & Araújo-Soares, 2014).

Despite these potential limitations, however, researchers across a variety of social science fields have found that the TPB model provides a well-fitting model of behavioral intentions,

behavioral outcomes, or both. For example, in McEachan, Conner, Taylor, and Lawton's (2011) meta-analysis of the applicability of the TPB to a variety of health behaviors, all three components of the TPB (attitudes, subjective norms, and perceived behavioral control) showed medium-large relationships with behavioral intentions ( $\rho = .40$  to  $.57$ ) and medium relationships ( $\rho = .21$  to  $.31$ ) with actual behaviors. Other meta-analyses of TPB have demonstrated similar relationships between the proposed predictors and behavioral intentions ( $\rho = .35$  to  $.61$ ) and behaviors ( $\rho = .32$ ), and have also documented large associations between behavioral intentions and actual behavior ( $\rho = .47$ ; Armitage & Connor, 2001; McDermott et al., 2015). Furthermore, the TPB has been found to provide a good-fitting model of behavioral intentions across a wide variety of topics, including dietary change (Hagger, Chan, Protogerou, & Chatzisarantis, 2016) alcohol use (Hagger et al., 2016), and treatment compliance (Zemore & Azjen, 2014). Thus, there appears to be considerable value in studying behavioral intentions and their predictors, particularly in situations where opportunities to engage in the target behavior may be less common and therefore more difficult to investigate.

### **Application of the TPB to Employer Hiring Decisions About People with Disabilities**

Underemployment and unemployment of people with disabilities has long been recognized as a considerable issue. In 2016, only 35.9% of working-age adults with disabilities were employed, less than half the rate of people without disabilities (Kraus, Lauer, Coleman, & Houtenville, 2018). Even among highly educated people with disabilities, labor force participation and unemployment rates remain considerably worse than those of similarly educated people without disabilities (U.S. Bureau of Labor Statistics, 2018), suggesting that the low employment rates of people with disabilities cannot be attributed solely to a lack of qualifications.

Possible contributors to the low employment rates among people with disabilities may be employers' attitudes and subjective norms associated with hiring people with disabilities, making the TPB a potentially useful model. Fraser and colleagues (2010) conducted a focus group regarding employer's intentions and concerns regarding hiring people with disabilities and found that many participants reported concerns that applicants with disabilities could not perform work of the same quality as those without disabilities, a potential attitudinal barrier. In fact, Fraser and colleagues found that the responses of employers generally fit well within the TPB framework, with employers highlighting attitudinal concerns, subjective norms, and perceived control beliefs that made them more or less likely to hire individuals with disabilities. They found that larger companies expressed more subjective norm and perceived control barriers, highlighting concerns about convincing company leadership that targeted outreach to potential applicants with disabilities would be a worthwhile use of company time and resources. In contrast, participants from smaller companies expressed more attitudinal concerns about the ability of people with disabilities to do the work well.

Hernandez and colleagues (2012) also conducted a qualitative study that applied the TPB to investigate intent to hire applicants with disabilities in 12 New York City employers and found that it had good explanatory utility. They discovered that employers tended to have positive attitudes towards hiring people with disabilities and positive views of the subjective norms surrounding the behavior in their own organizations, although they did not always perceive this as translating to other companies. Participants in this study perceived the largest barrier to hiring applicants with disabilities to be the financial restrictions of their ability to hire anyone.

As a follow-up to their earlier study, Fraser, Ajzen, Johnson, Hebert, and Chan (2011)

conducted a quantitative study of the TPB with 89 employers in the Northwest region of the United States and found that the three factors predicted employer hiring intentions well, with subjective norms, particularly from company leadership, being the greatest influence. Other researchers who have investigated the applicability of the TPB to employer hiring decisions have found mixed but generally positive results. Araten-Bergman (2016) tested the TPB model to explain Israeli human resource managers' hiring decisions regarding people with disabilities; TPB factors explained 40% of the variance in participants' intent to hire but did not significantly explain actual hiring behavior at 6-month follow-up. In another study, Mak, Ho, and Kim (2014) utilized measures of the TPB, along with multiple other measures, to predict hiring intentions regarding cancer survivors among 145 Singaporean employers. They found partial applicability for the TPB model; attitudes and employer efficacy, a proxy of perceived behavioral control, were significantly related to hiring intentions but subjective norms were not.

Given the varying results of these studies, more research on the application of the TPB to employer hiring decisions regarding applicants with disabilities is warranted. One potential area for growth is conducting more research in the American cultural context. Several studies in the small body of TPB literature on this topic have been conducted with employers from other countries. Because the TPB is heavily based on attitudinal beliefs and subjective norms, cultural and sociopolitical factors regarding labor laws and disability protections that could significantly influence attitudes, norms, and hiring practices around disability may also influence the applicability of the TPB model. Additionally, the existing body of literature consists largely of studies with relatively small sample sizes, increasing the probability of Type II errors due to low statistical power. Finally, attitudes and subjective norms may differ by the type of disability an applicant has; thus, it is important to examine attitudes for applicants with disabilities in a

disaggregated manner. Accordingly, our study focused specifically on applying the TPB to hiring intentions towards applicants who are blind or significantly visually impaired (henceforth referred to as “blind” for brevity).

### **Employer Attitudes Regarding People who are Blind**

Negative employer attitudes have consistently been identified as a barrier to employment for people who are blind (Coffey, Coufopoulos, & Kinghom, 2014; Crudden & McBroom, 1999; Kirchner, Johnson, & Harkins, 1997; Salomone & Paige, 1984). Although prejudice towards people who are blind in general is typically not seen as socially permissible (Crandall, Eshleman, & O’Brien, 2002), negative attitudes towards potential employees or job applicants who are blind may be more common and viewed as more permissible (Gilbride, Stensrud, Ehlers, Evans, & Peterson, 2000; Inglis, 2006). A large majority of rehabilitation professionals who work with people who are blind believed that employers have more negative attitudes about blind applicants than they do about applicants with other disabilities (McDonnall, Zhou, & Crudden, 2013).

These negative employer attitudes may be due to a number of stereotypes or beliefs about the abilities of people who are blind. For example, research has documented that many employers lack knowledge about how assistive technology or other accommodations can allow people who are blind to perform a wide variety of tasks that typically require unimpaired vision (McDonnall, O’Mally, & Crudden, 2014; McDonnall & Crudden, 2018). This may cause potential employers to believe that a job applicant who is blind cannot be productive at the tasks required in a given job or even that they are unable to do said tasks at all. The low incidence of blindness leads to many employers not having had direct involvement with blind employees, resulting in a lack of experiences, particularly positive experiences, that could reinforce any

decisions to hire job applicants who are blind (Wolffe & Candela, 2002). Although investigations on the topic of employer attitudes towards people who are blind have recently been conducted (McDonnall et al., 2014; McDonnall & Crudden, 2018), other factors that may influence employers' intent to hire have not been investigated. Thus, more research is needed on additional, modifiable factors that could shape intent to hire, given that direct experience with employees who are blind may not always be possible.

### **Purpose of Study**

Although negative employer attitudes has been established as a likely barrier to employment for people who are blind, researchers have not yet investigated the roles of subjective norms and perceived behavioral control on employer intent to hire blind applicants. Additionally, researchers have not yet examined the application of the TPB to employers' hiring intentions regarding applicants who are blind specifically. Because blindness is a low incidence condition, the actual behavior of hiring someone who is blind would happen infrequently, making it much more difficult to assess than its precursor – intent to hire someone who is blind. Thus, the purpose of the present study is to examine the goodness of fit of the TPB model to employer hiring intentions for blind applicants using structural equation modeling.

### **Method**

#### **Participants and Procedure**

The authors' university's Institutional Review Board approved this study. Participants in the study were hiring managers, defined as business professionals who are responsible for making hiring decisions for their companies. We engaged Research Now, an online market research company, to identify a national sample of hiring managers through their business-to-business research panel. Large samples of business professionals are often hard to obtain, thus

many market research companies offer these business-to-business panels. Research Now recruits participants for their panel by invitation only and members earn points for completed surveys that are transferable to loyalty rewards programs. Members of their business-to-business panel who were identified in their database as managers or high-level administrators (e.g., president, VP, CEO, COO) were sent information about this study by email, with a message that they may qualify for an online survey. Participants who wanted to learn more about the opportunity clicked on a link in the email that took them to Research Now's website, where they could read the instructions and click on another link to begin the survey. The first question in the survey ascertained whether the individual was involved in making hiring decisions at their company; a response of yes to this question was required to continue with the survey. A question later in the survey served as an attention check: respondents were asked to provide a specific answer to a question, and those who answered incorrectly were disqualified from the study.

Research Now distributed the invitation to participate in the study via email to 25,843 members of their business-to-business panel. Of those who were sent an email, 1,786 opened the link to read information about the study and 1,064 entered the survey, for a 59.6% initial response rate. Of those who entered the survey, 668 confirmed that they were involved in making hiring decisions for their organization and were thus qualified to complete the study. A total of 464 respondents completed the survey, for a completion rate of 69.5% of those who were eligible to participate. To help ensure integrity of the data, respondents who took less than 5 minutes to complete the survey were eliminated from the sample, resulting in a final sample size of 388. With these respondents removed, the average time to complete the survey was just over 9 minutes.

The majority of participants were male (59.8%) and between the ages of 45 and 64

(62.4%). Most had a college degree: 6.2% had an Associate's Degree, 35.1% had a Bachelor's degree, and 44.9% had a graduate degree. They resided in 47 states that represented each region of the U.S. They were employed by companies of all sizes, ranging from less than 15 employees (16%) to 2,500 or more employees (19.1%). Participants identified their positions as managers or supervisors (53.6%), directors or chief executives (24.5%), company owners (13.1%), human resource personnel (3.9%), or other (4.9%).

### Measures

Participants completed an online survey that included (a) scales to measure the four constructs of the TPB, (b) limited demographic and company information, and (c) additional items that were unrelated to this study. Items to represent two of the constructs of the TPB (subjective norms and perceived behavioral control) were developed based on Ajzen's guidelines (Ajzen, n.d.). Intent to hire items were modified from Fraser et al.'s (2011) intent to hire people with disabilities measure, which were also developed based on Ajzen's guidelines. An existing, validated attitudes toward people who are blind as employees instrument was used to measure attitudes (McDonnall, 2014, 2017).

**Intent to hire.** Items from Fraser et al.'s (2011) intent to hire measure were modified for use in this study. Questions were in the form of "I am ready to hire an individual who is blind or visually impaired," with "intend to," "am planning to," "have decided to," and "will hire" replacing "am ready to" in the other items. These five items were measured on a numerical 8-point likelihood scale, with anchors at 0 (unlikely) and 7 (likely). Internal consistency reliability for the items was high ( $\alpha = .94$ ). Instructions preceding these items were "Please rate the following statements, assuming that a qualified legally blind applicant has applied for a position at your company." These instructions were included in an attempt to prevent participants from

responding negatively based on their belief that they would not have the opportunity to hire a blind applicant. Based on the confirmatory factor analysis (described in the results section), we determined that only three of the five items were necessary to represent intent to hire as a latent construct. Items 1 (am ready to), 2 (intend to), and 5 (will hire) were retained. Sample scores for this measure also ranged from 0 to 21, and internal consistency reliability was high for the three item measure ( $\alpha = .91$ ).

**Attitudes.** The Employer Attitudes Toward Blind Employees Scale (EABES; McDonnall, 2014, 2017) was used to measure hiring managers' attitudes. This measure was created specifically to assess attitudes toward people who are blind *as employees*. This distinction is considered important as it is not socially acceptable to express prejudice towards people who are blind (Crandall et al., 2002), but people do generally perceive those who are blind to be low on competence (Fiske, Cuddy, Glick, & Xu, 2002). This instrument includes 11 items measured on a 7-point Likert agreement scale. It consists of two subscales, one that measures employer beliefs about the abilities and productivity of a blind employee, and one that measures employer beliefs about the challenges or difficulties they might encounter with a blind employee. Scores on the productivity subscale can range from 0 to 30 and scores on the challenges subscale can range from 0 to 36; actual scores for hiring managers in this study covered the entire range of both scales. Higher scores are indicative of a more positive attitude toward blind employees. High subscale reliability (.92 [productivity] and .84 [challenges]), and confirmatory factor analysis previously provided evidence for the instrument's reliability and construct validity (McDonnall, 2017). Evidence for the instrument's predictive validity was provided by its significant relationship to future likelihood to hire a qualified person who is legally blind (McDonnall, 2014, 2017). In the present study, internal consistency reliability was

.92 for the productivity subscale and .75 for the challenges subscale. For this study, both attitude subscales were tested as separate predictors of intent to hire.

**Subjective norms.** Three items were developed to measure subjective norms on a numerical 8-point agreement scale, with anchors at 0 (disagree) and 7 (agree). Scores could range from 0 to 21 and actual scores covered the entire range. The items pertained to respondents' perceptions of whether their company, boss, and employees would support the hiring of an individual who is blind (e.g., My company would support hiring an individual who is legally blind.). Internal consistency reliability for the items was high ( $\alpha = .91$ ).

**Perceived behavioral control.** Three items were developed to measure perceived behavioral control. Each item was rated on a numerical 8-point agreement scale, with anchors at 0 (disagree) and 7 (agree). Sample scores also covered the entire possible range of this scale (0 to 21). Respondents were queried about their perceptions of their authority and ability to hire an individual who is blind, and whether they know where to find a qualified blind applicant (e.g., Deciding to hire an individual who is legally blind is up to me.). Internal consistency reliability for the items was adequate ( $\alpha = .73$ ), despite the item regarding where to find a blind applicant having a relatively low correlation with the other items ( $r = .34$ ).

### **Data Analysis**

Data were initially checked for outliers and measures were checked for normality. All measures were approximately normally distributed. Standard techniques for psychometric analyses (i.e., Cronbach's alpha, evaluation of standard deviations, range of responses, and item-total correlations for each item) were used as an initial test of the appropriateness of the created TPB measures. Descriptive statistics were utilized to calculate averages, variability, and correlations between measures (see Table 1). Confirmatory factor analysis (CFA) was used to

determine the suitability of our measurement model, verifying that items were appropriate to measure their proposed latent constructs. Structural equation modeling (SEM) was utilized to test the proposed structural model, assessing the interrelationships between our latent variables and testing the TPB. The use of SEM provides an advantage over traditional regression analyses as it accounts for measurement error in the latent constructs of the TPB.

For CFA and SEM, multiple fit indices representing the three major types of fit were employed, with the following criteria established to signify good fit: (a) standardized root mean-square residual (SRMR) < .08, (b) root mean square error of approximation (RMSEA) < .06, and (c) comparative fit index (CFI) > .95 (Brown, 2006; Hu & Bentler, 1999). We also reported chi-square values for all models (see Table 2) but did not use it as a fit index due to its propensity to reject even good-fitting models when sample sizes are large (Hooper, Coughlan, & Mullen, 2008). SAS<sup>®</sup> 9.4 (Cary, NC) was used for all analyses, and PROC CALIS was utilized for the CFA and SEM analyses.

## **Results**

As shown in Table 1, all measures were significantly correlated with each other ( $r = .35$  to  $.75$ ), as expected given the TPB and as accounted for in the CFA and SEM models described below. Means were approximately in the mid-range of possible scores for measures except subjective norms, where the mean was slightly closer to the upper range of the scale, and intent to hire, where the mean was on the lower range of the scale. Skewness and kurtosis for all measures was acceptable (George & Mallery, 2010).

### **Confirmatory Factor Analysis**

In order to confirm the factor structure of the TPB items created for this study, we ran a CFA of the TPB items along with their proposed factors: Attitudes-Productivity (five items),

Attitudes-Challenges (six items), Subjective Norms (three items), Perceived Behavioral Control (three items), and Intent to Hire (five items). The initial CFA results indicated moderate, but not good, model fit (see Table 2 for fit indices for all models). Furthermore, two items on the Intent scale were highly correlated with each other ( $r=.89$ ), indicating a high degree of multicollinearity. Based on these results, we created a revised measurement model with these two items dropped, which resulted in a three-item Intent scale (see Table 3 for factor loadings for individual items on the original and revised measurement models). This revised model demonstrated improved model fit and met the criteria for good fit. The revised model was retained for use in the SEM analysis.

### **Structural Equation Model**

We evaluated the model in Figure 1 using the fit indices described in the methods section. Overall, the fit indices indicated good model fit, and the model explained 61.8% of the variance in Intent. As shown in Figure 1, the paths between Intent and Subjective Norms ( $\beta=.30$ ), Perceived Behavioral Control ( $\beta=.19$ ), and Attitudes-Productivity ( $\beta=.35$ ) were all significant at the  $p < .001$  level. The only non-significant path in the model was the path between Attitudes-Challenges and Intent ( $\beta=.07$ ,  $p=.31$ ).

In the interest of maximizing model fit and increasing parsimony, we ran a revised model with the Attitudes-Challenges factor removed. This revised model, shown in Figure 2, also had good model fit (RMSEA=.056 [90% CI: .044, .068]; SRMR=.065; CFI=.979), indicating that overall fit was not sacrificed to improve parsimony. It explained 61.6% of the variance in Intent, a negligible decrease from the variance explained by the original model. Thus, we chose to retain this model as the best model for the data. In the revised model, paths between Intent and Subjective Norms ( $\beta=.32$ ), Perceived Behavioral Control ( $\beta=.19$ ), and Attitudes-Productivity

( $\beta=.39$ ) were all significant at the  $p < .001$  level.

### **Discussion**

We studied intent to hire people who are blind because of the long-term low employment rates, and high unemployment rates, of this population, which are often attributed to negative employer attitudes. This is the first study to test the TPB in relation to employer hiring intentions regarding people with disabilities, specifically people who are blind, with SEM. It is difficult to empirically assess actual employer hiring behavior with a low incidence population such as this; therefore, intent to hire serves as a good proxy variable. This behavior differs from many of the behaviors typically evaluated with the TPB, such as exercise, diet, and other health-related behaviors, in that those behaviors allow for greater personal behavioral control. The behavior of hiring a job applicant with a low-incidence disability is not entirely under employer control; even if employers want to hire a person who is blind, they first need to identify a qualified applicant, who may or may not be readily available.

The TPB provided a good fit for our data. Attitudes about productivity, subjective norms, and perceived behavioral control accounted for more than 61% of the variance in intent to hire people who are blind. This is a similar amount of variance explained in other studies of intent to hire people with disabilities (Araten-Bergman, 2016; Fraser et al., 2011). Attitudes about productivity of a blind employee had the strongest relationship with intent to hire, followed by subjective norms and perceived behavioral control. This is inconsistent with the two other studies of intent to hire people with disabilities, in which subjective norms were the greatest predictor of intent, followed by attitudes and perceived behavioral control (Araten-Bergman, 2016; Fraser et al., 2011). A meta-analysis of the TPB applied to a broad range of other topics documented that perceived behavioral control was generally the strongest predictor, followed by attitudes, while

subjective norms were not as important (Armitage & Conner, 2001). However, a meta-analysis of the TPB applied to dietary patterns documented that attitudes, followed by perceived behavioral control, were the strongest predictors of intent, and subjective norms were an important predictor as well (McDermott et al., 2015). It is worthy of noting that subjective norms appear to be a more important consideration of behavioral intentions of hiring people with disabilities than of intentions of other behaviors.

Also worthy of note is that most studies examining intent to hire people with disabilities found perceived behavioral control to be the least important predictor, while it was the most important predictor of intent when evaluating a broad range of topics (Armitage & Conner, 2001). In the present study and the Araten-Bergman (2016) study, perceived behavioral control was a much less powerful predictor than attitudes and subjective norms. This could be related to many employers having the authority (i.e., company approval, given that discrimination in hiring is prohibited) to hire someone with a disability, decreasing the salience of perceived behavioral control assuming a qualified applicant with a disability was known and available.

Attitudes about the productivity of a blind employee were the strongest predictor of intent to hire. This is not surprising given that we know concerns about productivity, potentially associated with lack of knowledge, are a major consideration for employers when considering whether to employ a person with a disability (Domzal, Houtenville, & Sharma, 2008; U.S. Department of Labor, 2014). However, it is interesting that this was the most salient factor for potential employees who are blind, while it was not in other studies of people with general disabilities (not specifically defined). Differences in the results of this study and general disability studies provide support for the value of studying disability groups independently when it comes to issues such as employer attitudes. These results also indicate that it is vital that

employers understand how a blind person could be productive in the employers' jobs. Surprisingly, attitudes about perceived challenges to employing a blind person were not significantly associated with intent to hire. One might expect that challenges an employer perceives to having a blind person in the workplace would weigh heavily in their intent to hire. The insignificance of this factor could be associated with the fact that it was broad in scope, encompassing some aspects of subjective norms (with items related to employee perceptions and customer perceptions, such as "Because most employees know very little about blindness or visual impairment, it would be challenging to have a person who is legally blind work here.") and even perceived behavioral control (e.g., "It would be hard to justify hiring someone who is legally blind if we had other qualified applicants."). Thus, the variance accounted for by this factor may have considerably overlapped with that explained by other factors, rendering it insignificant.

### **Limitations**

A few limitations to this study should be acknowledged. First, standard limitations related to the nature of the study exist (i.e., cross-sectional, self-report data). Second, because intent to hire was thought to potentially be rated lower if the employer thought they would not have the opportunity to hire a blind person, we added a sentence to the instructions for the intent items asking employers to answer the questions with the assumption they had a qualified blind applicant. The possible impact of this additional instruction, which has not typically been included in similar studies, is unknown but could have elevated scores on the intent to hire items. Alternatively, some participants may have made note of the statement, while some did not, resulting in potentially different answers based on attention to the instructions. Finally, we are not able to evaluate the impact of attitudes, subjective norms, and perceived behavioral control

on actual hiring behavior of people who are blind or visually impaired. Although previous studies have documented a significant relationship between intent and behavior, we do not know the real relationship between reported intent to hire and actual hiring. Given that discrimination against hiring people with disabilities is illegal, employers may have a greater likelihood to exaggerate their intent to hire than they would intent to do other activities. Unfortunately, the ability to conduct research making the connection to hiring behavior would be much more difficult given the low incidence of blindness.

### **Implications for Practice**

These findings offer several implications for rehabilitation professionals who work with individuals who are blind. Because attitude about productivity was the strongest predictor of intent to hire, professionals should focus their efforts with employers on education about how blind people can perform the employers' jobs. This requires the professional to have a good understanding of the employers' jobs, including the essential tasks that must be accomplished. Although some jobs are not well suited for individuals who are blind, the majority of jobs can be accommodated to allow this population to be successful. Unfortunately, employers generally do not realize this due to lack of knowledge about accommodations and alternative techniques available to people who are blind (McDonnall et al., 2014; McDonnall & Crudden, 2018). Having this information can change attitudes about the productivity of blind employees, which should positively impact employers' intent to hire.

Negative employer attitudes toward people who are blind have long been considered a major barrier to employment (Coffey et al., 2014; Crudden & McBroom, 1999; Kirchner et al., 1997; Salomone & Paige, 1984). These findings suggest that rehabilitation professionals need to consider not only employer attitudes, but also subjective norms for the people around them and

their perceived behavioral control. The employers' perceptions about their companies', supervisors', and co-workers' beliefs about hiring a person who is blind are important, and could be influenced by providing a disability awareness presentation to company employees.

Obviously, buy-in from top management is important, but may be more difficult for the rehabilitation professional to directly influence. One strategy would be to target employers who already have top management commitment, demonstrated, for example, by a policy about hiring people with disabilities. Even if a company has a policy about hiring people with disabilities, the hiring managers within that company will likely still need specific information and education about employing someone who is blind. Top management commitment is also relevant to perceived behavioral control; in companies with a hiring policy about people with disabilities, employers have the latitude to make the decision to hire someone who is blind. However, employers will likely not know where to find a qualified blind applicant. Approaching the employer from the perspective of developing an ongoing relationship and serving as a resource for qualified applicants would help to improve their perceived behavioral control, thereby increasing their intent to hire someone who is blind.

### **Implications for Research**

This study adds to the small body of research on the TPB as applied to employer's hiring intentions toward applicants with disabilities. The use of a multi-scale attitude measure—and our findings that only one of the subscales contributed significantly towards behavioral intent—could suggest the utility of multidimensional attitude measures in the study of hiring intentions towards people with other disabilities. It may be that shorter or more general attitude measures do not capture or differentiate the specific components of employer attitudes that most strongly relate to hiring intention, something that could be further explored in future studies. The results

of this study highlight the importance of examining the components of the TPB as applied to specific, defined disability groups. Broader, pan-disability studies may miss important differences in employer' perceived barriers or beliefs regarding applicants with specific disabilities. For example, employers may have different concerns or behavioral intentions regarding hiring an applicant who is blind versus an applicant who has autism, leading to different attitudes, subjective norms, feelings of perceived behavioral control, and hiring intentions. Such potential differences could be explored in future studies that examine the TPB as applied to different disability groups.

### **Conclusion**

Our results support the explanatory utility of the TPB as applied to employers' hiring intentions towards applicants who are blind. As expected, attitudes, perceived behavioral control, and subjective norms all significantly predicted intent to hire, although only the productivity subscale of the attitudes measure, not the challenges subscale, was a significant predictor of hiring intentions. Given these findings, rehabilitation professionals should recognize that addressing not only employers' attitudes about productivity, but also their subjective norms and perceived behavioral control, may help increase employers' willingness to hire applicants who are blind.

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Table 1

*Means, Standard Deviations, and Sum Score Correlations for Study Measures*

Measure	1	2	3	4	5
1. Subjective norms <sup>a</sup>	-	.48*	.75*	.56*	.67*
2. Perceived behavioral control <sup>a</sup>	-	-	.44*	.35*	.53*
3. Attitudes-Productivity <sup>b</sup>	-	-	-	.59*	.67*
4. Attitudes-Challenges <sup>c</sup>	-	-	-	-	.49*
5. Intent to hire <sup>a</sup>	-	-	-	-	-
<i>M</i>	14.33	10.05	16.80	17.69	8.81
<i>SD</i>	5.88	5.94	8.34	6.06	6.03
Skewness	-0.71	-0.18	-0.36	0.060	0.15
Kurtosis	-0.28	-0.89	-0.81	0.20	-0.96

\* $p < .0001$ ; <sup>a</sup>Range: 0-21 <sup>b</sup>Range: 0-30 <sup>c</sup>Range: 0-36

Table 2

*Model Fit Indices for Confirmatory Factor Analysis and Structural Equation Models*

Model	$\chi^2/df$	CFI	SRMR	RMSEA (90% CI)	R <sup>2</sup> (Intent)
Initial measurement	642.58/199	.93	.073	.076 (.069, .082)	-
Final measurement	336.56/160	.96	.061	.053 (.045, .061)	-
Initial structural	336.56/160	.96	.061	.053 (.045, .061)	.618
Final structural	157.78/71	.98	.065	.056 (.044, .069)	.616

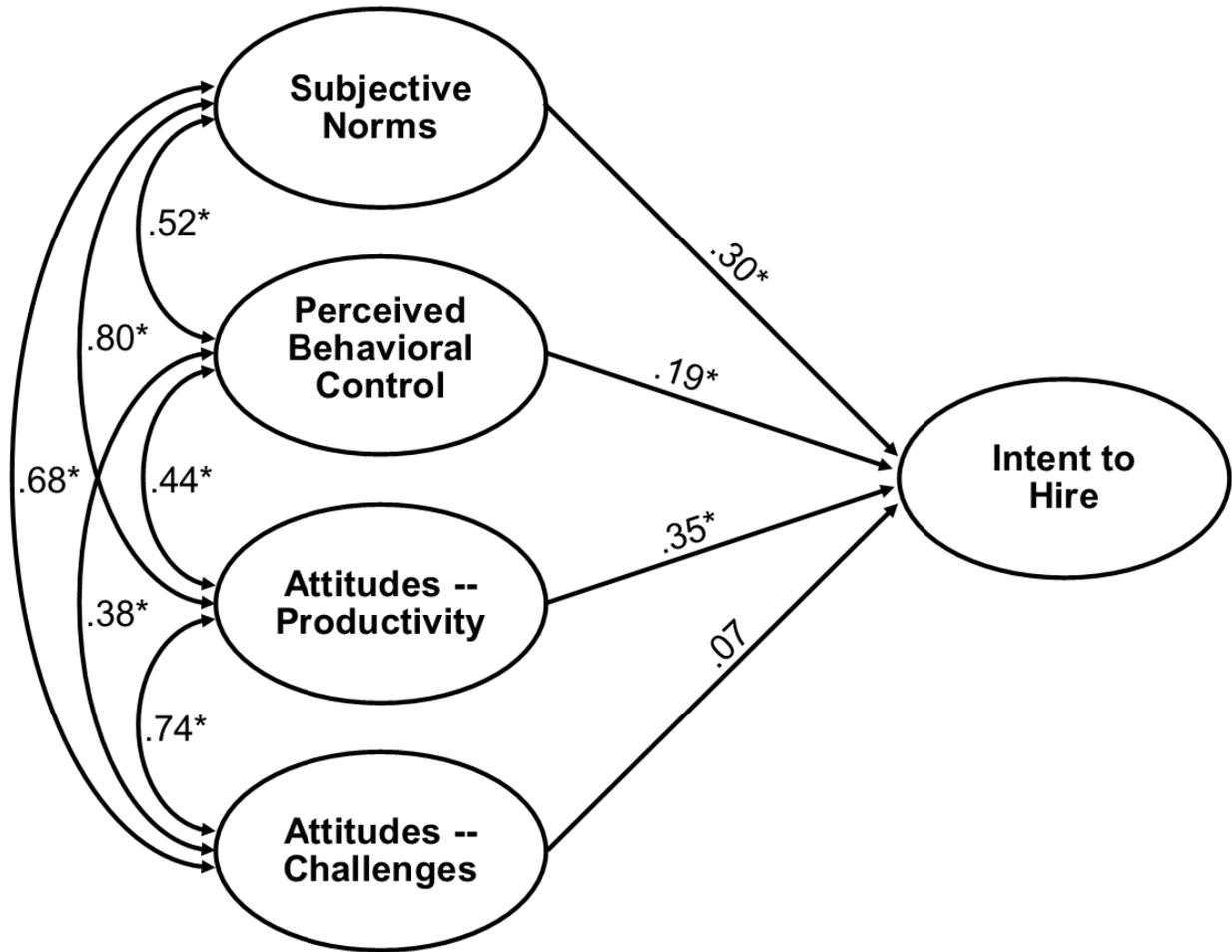
Table 3

*Standardized Factor Loadings for Confirmatory Factor Analysis Models*

Scale/Items	Original		Revised	
	Estimate	t-value	Estimate	t-value
Intent to hire				
I am ready to hire an individual who is legally blind.	.81	43.37	.90	63.98
I intend to hire an individual who is legally blind.	.95	142.00	.89	60.92
I am planning to hire an individual who is legally blind.	.94	119.20	--	
I have decided to hire an individual who is legally blind.	.89	72.87	--	
I will hire an individual who is legally blind.	.80	42.19	.84	46.53
Attitudes – Productivity				
Awareness of jobs at own company that a legally blind person could perform	.84	49.32	.84	49.90
Legally blind can perform same quantity of work	.85	52.03	.85	52.12
Legally blind can perform same quality of work	.90	72.05	.90	71.37
Legally blind can provide service to customers	.82	43.89	.82	43.96
Legally blind can successfully supervise others	.75	31.44	.75	31.55
Attitudes – Challenges				
Hiring legally blind too costly	.66	19.01	.66	19.04
Challenging to have legally blind work here due to lack of knowledge	.54	13.16	.54	13.18
Legally blind need more help from coworkers	.66	19.03	.66	18.92
Hard to justify hiring legally blind	.76	26.34	.76	26.47
Customers uncomfortable with legally blind	.40	8.35	.40	8.36
Apprehensive about terminating legally blind	.39	8.00	.39	7.98
Subjective norms				
My company would support hiring an individual who is legally blind.	.88	61.20	.88	61.14
My boss would support hiring an individual who is legally blind.	.94	87.90	.93	87.96
My employees would be supportive of having a co-worker who is legally blind.	.83	45.63	.83	45.92
Behavioral control				
I have the authority to hire an individual who is legally blind.	.93	36.72	.94	37.16
Deciding to hire an individual who is legally blind is up to me.	.83	30.78	.83	30.84
I know where to find a qualified legally blind applicant.	.37	7.91	.37	7.87

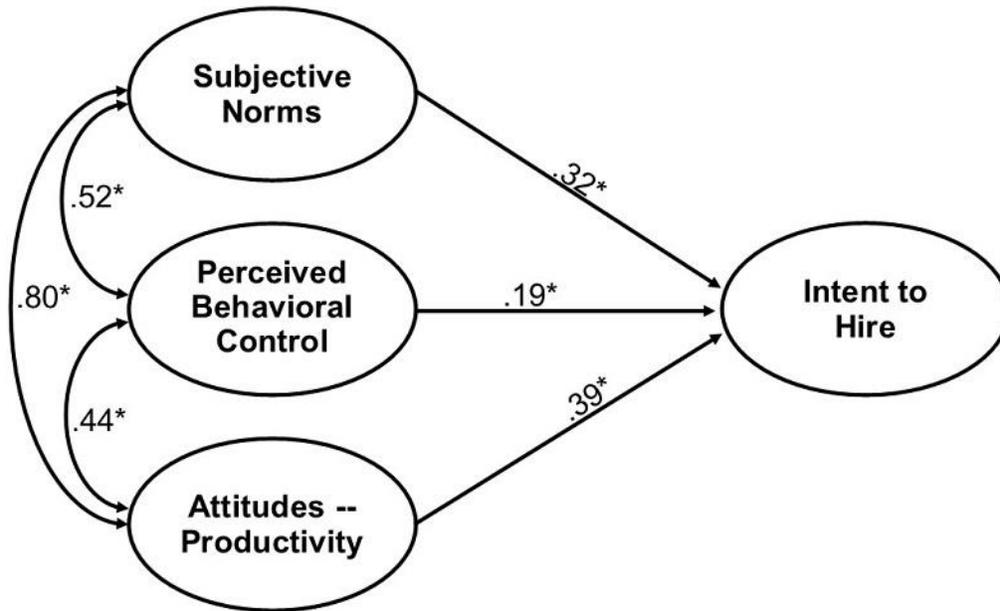
Note. All estimates are significant at  $p < .0001$ .

Figure 1



Initial structural equation model with Subjective Norms, Perceived Behavioral Control, Attitudes-Productivity, and Attitudes-Challenges all covarying with each other and all predicting Intent to Hire. Individual items omitted for clarity. The path between Attitudes-Challenges and Intent is the only insignificant path ( $p=.31$ ).  $*p<.001$

Figure 2



Revised structural equation model with Subjective Norms, Perceived Behavioral Control, and Attitudes-Productivity all covarying with each other and all predicting Intent to Hire. Individual items omitted for clarity. All paths are significant. \* $p < .001$