

The Initial Development and Validation of the Perceptions of Disability Scale (PoDS)

Results from Pilot Studies

Research Paper

Alexis McKenney
Haiying Long

Abstract

The purpose of this study was to report the initial process of developing and validating the Perceptions of Disability Scale (PoDS), a scale designed to map a continuum of sympathy, empathy, and advocacy perspectives on people with disabilities. We first created a 30-item scale based on a thorough literature review and the findings of a previous qualitative study. Then we further refined and validated the scale through a 3-phase approach as well as internal consistency reliability evidence and validity evidence based on content, response process, and internal structure. Results suggest that the final 21-item scale has excellent reliability and validity. Suggestions for how the scale can be used in recreational therapy practice and human-service related trainings, and for future research are provided.

Keywords

Advocacy, attitudes, disability, empathy, recreational therapy, survey, sympathy

Alexis McKenney is a professor in the Health and Rehabilitation Sciences Department at Temple University.

Haiying Long is an associate professor in the Department of Counseling, Recreation, and School Psychology at Florida International University.

The first and second authors have contributed equally to the manuscript.

Please send correspondence to mckenney@temple.edu

Introduction

Negative attitudes directed toward people with disabilities often create barriers to their participation in typical social aspects of life (Hergenrather & Rhodes, 2007). Changes in attitudes can be complicated because of the complex nature of attitudes and the challenges associated with a process that occurs over long periods of time (Malhotra, 2005; Seccombe, 2007). In addition, how and the degree to which attitudes change can be mediated by many factors such as past experiences people without disabilities have had with people with disabilities (Tervo & Palmer, 2004) and/or having a member of the family who has a disability (Uysal et al., 2014).

Negative attitudes also align with whether an individual holds a sympathetic perspective toward people with disabilities. Wispé (1986) argued that a person cannot be sympathetic and simultaneously objective, therefore contributing to the possibility of that person holding distorted beliefs. Consequently, a sympathetic perspective leads individuals who work in therapeutic environments to make inaccurate assessments that potentially negatively affect therapeutic relationships (Morgan & Lo, 2013). A person with a positive attitude toward people with disabilities, however, possesses an emotional sensitivity, internalizes the belief that people with disabilities can live normal lives, makes personal decisions about themselves, and can be productive members of society (Tervo & Palmer, 2004). These individuals are often characterized as being empathetic, meaning that they experience insights about other people that help them in understanding what those individuals might be feeling or experiencing (Segal, 2007). Furthermore, when a person has an empathetic perspective toward people with disabilities, that person might be inclined to have an advocacy perspective (McKenney, 2018).

The purpose of this study was to report the initial process of developing and validating the Perceptions of Disability Scale (PoDS). The scale was created based on the qualitative results of a study conducted with 10 students that focused on changes in their attitudes toward disabilities after participating in disability simulation activities (McKenney, 2018). More specifically, McKenney (2018) found that the students moved from primarily a sympathetic response to the disability simulation activities, to one that involved more of an empathetic response, to ultimately, thinking from an advocacy perspective. The scale was designed to reflect this evolution of responses and a related, emerging model.

Sympathy, Empathy, and Advocacy

The constructs of sympathy, empathy, and advocacy that emerged from the McKenney (2018) study serve as the main components of the PoDS scale. This section includes a detailed description of the terms. The Greek *sympatheia* means “together” (*syn*) “suffering” (*pathos*) (Sympathy, n.d.). In *A Treatise of Human Nature*, David Hume (1739/1888) defined “sympathy” as the capacity to notice, and be emotionally affected by, what happens to another person. It was not until after the 1950s that the word moved away from sympathy to what we presently refer to as “empathy” (Escalas & Stern, 2003). According to Wispé (1986), the definition of sympathy shifted to describe a feeling of sadness that one experiences as a result of another person’s condition or emotional state. Gerdes (2011) argued that the devolution of sympathy to a simpler feeling is partially a result of the parallel, growing sophistication of the definition of empathy.

To understand sympathy, it is important to understand its linguistic connection to the word, pity. The term pity emerged in the late 13th century to describe a feeling of tenderness for a person who was suffering and a desire to alleviate that person's suffering (Wilmer, 1968). Over time, the conventional understanding of the word as a positive feeling (i.e., tenderness) shifted to one that describes a negative feeling, such as that of whining or victimization (Gerdes, 2011).

Like pity, the meaning of "sympathy" has been moving away from its original meaning toward a more direct and less affectively complex definition and has taken on a similar and somewhat indistinguishable negative connotation. In considering the terms as they are used in therapeutic relationships, Wispé (1986) argued that sympathy is not the mode a practitioner should take when facilitating therapeutic interactions. The author suggested that sympathy does not result in accurate assessments because one cannot be sympathetic and objective at the same time. Gerdes (2011) suggested that feeling sympathy toward a person, as opposed to empathy, requires less attention and energy from the practitioner. Furthermore, empathy is more efficacious than sympathy in helping to develop mutual trust and respect between the practitioner and client. Consequently, the facilitator's perspective and attitudes should be informed by empathy rather than sympathy.

In contrast to the longevity of the term, "sympathy," the use of the word "empathy" did not emerge until the beginning of the 20th century (Gerdes, 2011). Empathy is often seen as occurring when a person experiences insight about another person that fosters an understanding of that person's circumstances (Segal, 2007). Once one observes and picks up on another person's signals, that person engages in perspective taking, self/other-awareness, and emotional regulation (Decety & Moriguchi, 2007). Empathy is the capacity to be affected by and share, and assess another person's emotional state (de Wall, 2009), as well as to be able to act on this perspective in a way that is helpful to the client (Varcarolis, 2002).

The term empathy captures both cognitive and emotional reactions experienced by a person as a result of observing experiences of another person (Shamay-Tsoory, 2011). Cognitive empathy is a type of empathy that involves a person's capacity for engaging in the cognitive process of adopting another person's psychological point of view (Frith & Singer, 2008), and is thought to involve the theory of mind; a theory that is defined as a person's ability to imagine how another person is thinking and feeling (Baron-Cohen, 2009). Emotional empathy is characterized by a person's capacity to experience affective reactions and/or share similar feelings. When experiencing emotional empathy via observation of another person, that person is engaging in a thoughtful reflection of related emotions and behaviors (Shamay-Tsoory, 2011).

Although sympathy can lead to action, a person might act because of feelings of personal distress, a self-oriented emotional reaction which can lead to a self-serving reason for helping another person (Batson, 1987). In other words, the demonstrated prosocial behavior is motivated by one's desire to relieve their uncomfortable personal state. Although a sympathetic reaction might provide immediate comfort, it also increases anxiety and therefore potentially makes an empathetic response less likely than if the person approached the situation from an empathetic perspective (de Waal, 2009). Compared to sympathy, empathy results in diverse decision making and helping choices (Jeffrey, 2016) and a focus on another person's specific situation (de Waal, 2009).

Individuals who experience another person's emotion and situation (i.e., they are feeling empathy) have been found to be motivated to demonstrate prosocial behaviors that originate from a person-oriented emotional reaction (Eisenberg & Eggum, 2009; Zahn-Waxler & Radke-Yarrow, 1990). This is because empathy is central to normal social functioning, therefore, serves as a foundation for learning prosocial behavior (Charbonneau & Nicol, 2002). Compared to sympathy, which is characterized by a person being "moved by" another person, empathy causes a person to "reach out" to another person (Gerdes, 2011).

Prosocial behavior involves interactions or behaviors performed by one person with the aim of helping another person (Dovidio et al., 2006) and one of such behaviors is advocacy. Advocacy serves as a vehicle for change, meaning that change can be encouraged on a singular level affecting one person or on multiple levels affecting an entire country (Peniston, 1998). In other words, any opportunity to educate another person or persons, even if through a simple conversation, can serve as a form of advocacy, just as participating in a larger, organized event established to assist a person or population. Furthermore, a person serving as an advocate for people with disabilities might provide assistance, such as serving to remove barriers, standing against discrimination or disempowerment (Dattilo, 2012), or creating or modifying policies or practices that negatively impact clients, and/or promoting legislation that could potentially result in the delivery of services or resources (Hepworth & Larson, 1986).

Theoretical Framework

The McKenney (2018) study that served as the impetus for the development of the PoDS was grounded in the social model of disability, a model that presents a distinction between disability and impairment; in that, the focus is on restrictions created by society rather than on the impairments people have as a result of injury or illness (Oliver, 1990). The social model of disability provided the lens for confronting, addressing, and debriefing challenges participants experienced while participating in intensive disability simulation activities. This, in turn, contributed to the responses from the participants that resulted in the themes of sympathy, empathy, and advocacy that emerged and ultimately led to the development of the PoDS.

The participants experienced shifts in thinking as they began to internalize that they are members of society, thus, in part, responsible for the restrictions they were experiencing. This shift was captured in the evolution of responses that emerged from participating in the disability simulation activities. Whereas students tended to initially respond sympathetically, over time they began to better understand the challenges and difficulties inherent in trying to access sites and buildings. The shift in responses was then to a more empathetic approach. Moreover, as they engaged in even more extensive debriefings and personal reflections, their desire to effect change became more apparent, therefore, reflecting more of an advocacy perspective. However, it is important to note that although participants' responses demonstrated that they possessed an interest in actively engaging in causes that stand to benefit people with disabilities, such causes did not serve as catalysts for moving them from serving as an advocate to that of an activist. Such a change in role is often prompted by more complex interactions with professionals (Seligman & Darling, 2007) or close relationships with individuals with disabilities that allow for sharing of stories and/or emotions that serve to educate or motivate the individual to actively engage in a social movement for change (Ramsey,

2017). Therefore, the PoDS survey was developed to reflect the changes that participants experienced as a result of participating in the disability simulation activities.

The Perceptions of Disability Scale (PoDS) aims to map the continuum of sympathy, empathy, and advocacy that was found by McKenney (2018). It was developed as an attitude scale, similar to scales, such as the ATDP scale (Yuker et al., 1970) and the MAS (Findler et al., 2007), and parallels a format commonly used for research that examines individuals' attitudes. However, neither the ATDP nor the MAS are identified as tools that measure a progression to the demonstration of advocacy, a prosocial behavior that emerged as a result of an evolution of perceptions from sympathy to empathy, then advocacy. Consequently, the PoDS was designed to build on tools measuring sympathy and advocacy perspectives by also measuring potential progression to advocacy in disability related trainings, such as disability simulation activities. Important to note is that in the process of developing the PoDS, the word perception was seen as optimal for best capturing the complexity of the feelings that individuals experience; in that, responses captured how the participants responded to the learning activities that were part of the study.

Method

The scale was developed and validated based on a general 3-phase approach widely adopted in education and psychology as well as the conceptualization of validity and reliability stipulated from the most updated *2014 Standards for Educational and Psychological Testing* (Standards thereafter, AERA et al., 2014). The three phases included the development of the items and scale, field test of the scale in small pilot studies, and further validation of the scale in a larger-scale study. According to 2014 Standards (AERA et al.), validity is a holistic concept and is defined as the degree to which “evidence and theory support the interpretations of test scores for proposed uses of tests” (2014, p. 11). Five aspects of validity evidence are identified in the Standards, including evidence based on content; evidence based on response process; evidence based on internal structure; evidence based on relations to other variables; and evidence based on validity and consequences of testing. Because validation is an ongoing process, we only collected the first three types of validity evidence in this pilot study to establish initial validity of the scale and the other two types of validity evidence may be collected in the future. Evidence based on content studies the “relationship between the content of the test and the constructs it is intended to measure” (2014, p. 14). Experts are used to review the items and provide feedback to obtain this evidence. Evidence based on response processes of test takers is about “the fit between the construct and the detailed nature of the performance or response actually engaged in by test takers” (p. 15). This evidence is obtained by cognitive interviews with prospective test takers.

Evidence derived from internal structure indicates the relationships between the constructs and the items on which the suggested test score interpretations are created and is obtained by using factor analysis, including both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) (AERA et al., 2014). EFA is an exploratory approach to search for a smaller number of latent constructs or factors to represent a larger number of observed variables. By contrast, CFA is a confirmatory approach to test the theoretical constructs in order to provide sufficient justification for what observed variables can define which construct (Henson & Roberts, 2006). A

significant difference between EFA and CFA is that the EFA is used to generate or build theory; however, the CFA is used to confirm theory. In other words, the EFA rarely takes theory into account but relies more on statistical methods while the CFA is based on theory and the structure of the data derived from the theory (Henson & Roberts, 2006). The common practice of factor analysis is to conduct EFA first, followed by CFA. Both analyses cannot be performed with the same sample due to different purposes of the analyses. However, a larger sample can be divided into two random smaller samples, with one half sample performing EFA and the other half performing CFA. A minimum of 100 observations is required for both analyses (Kieffer, 1999; Merenda, 1997).

In the *Standards*, reliability is defined in two ways: one as the reliability coefficient in classical test theory, the other as the consistency of scores. The first definition was used in this study and internal consistency of the survey was estimated by using Cronbach's alpha. Because both quantitative and qualitative data were needed to obtain validity and reliability evidence, a mixed methods research design that employs quantitative and qualitative methods was used (Creswell & Plano Clark, 2018).

Sampling and Participants

A homogeneous convenience sampling approach, which refers to sampling a group of participants readily available who are similar in one or more sociodemographic aspects (Jager et al., 2017), was used in different phases of the study (see next section). In this study, the participants were undergraduate and graduate students who majored in recreational therapy at a university in southeastern region and a university in eastern region and who were interested in the study. They were chosen because they were willing to participate in the study were readily available or easily recruited (Johnson & Christensen, 2020). Jager et al. (2017) argued that, due to wide use of convenience sampling approach in research, it is more practical to “augment” (p.13) its advantages. They further pointed out that “homogeneous convenience samples have clearer generalizability relative to conventional convenience samples” (p. 13) because a more homogeneous sample is more representative of the population. Ten individuals, including the two authors of this paper, participated in Phase 1. Ten undergraduate students participated in the cognitive interview of Phase 2, 50 undergraduate students participated in the second study of Phase 2, and 280 undergraduate and graduate students participated in Phase 3 of the study. Although students were recruited from convenience sampling, they were selected from different grade levels and demographic backgrounds (e.g., race, gender, ethnicity). More importantly, they were a part of the target population of the scale and were familiar with people with disabilities. These characteristics of the participants and sample sizes are in line with the recommendations made in cognitive interviews and validation processes (Beatty & Willis, 2007; Thorndike & Thorndike-Christ, 2010; Willis, 2005).

Procedures

Through the combined use of three phases, validity and reliability evidence stipulated in the *Standards*, this study used the following procedure. Before being conducted, this study was approved by the Institutional Review Boards of both sponsoring universities.

Phase 1. Scale Development

The first phase of the McKenney (2018) study included the administration of two attitude scales: The Attitudes Toward Disabled Persons (ATDP) scale (Yuker et

al., 1970) and the Multidimensional Attitudes Scale (MAS) (Findler et al., 2007), for baseline data specific to the students' attitudes. This, however, limited what was found as a result of the activities conducted as part of the study. Therefore, the qualitative component that occurred in the second and third phases proved necessary. The second phase occurred abroad and involved the implementation of disability simulation activities and related debriefings, interviews, and journal entries. The third and final phase occurred stateside and included the administration of the post-test measures and follow-up interviews.

Results from the pre- and post-test quantitative measures showed that the students experienced positive attitude changes in 12 of 16 emotions on the MAS and four on the ATDP. Four primary themes emerged from the qualitative analysis: a) sympathetic responses, b) empathetic responses, c) advocacy responses, and d) culminating reactions. One secondary theme, socio-emotional skill development, also emerged from the data analysis. The author concluded that participants experienced an evolution of responses that demonstrated how they moved from primarily a sympathetic response to the disability simulation activities, to one that involved more of an empathetic response, to ultimately, thinking from an advocacy perspective.

Based on a synthesis of the literature and the results of the McKenney (2018) study, the first author, an expert in disability and recreational therapy, first wrote 35 items that reflected three sub-constructs identified in the 2018 study: sympathy, empathy, and advocacy. These items were revised based on discussions with the second author, who is an expert in measurement and statistics, before the initial draft of the scale was finalized. The draft was then sent to eight experts in recreational therapy and disability, along with a table of specifications, for feedback. The feedback was analyzed with the use of content analysis (Krippendorff, 2004), a qualitative method widely used to synthesize the results. The items in the scale were then revised based on the experts' feedback. This process provided validity evidence based on contents.

Phase 2. Pilot Study

In this phase, the authors tested the scale in two pilot studies. In the first pilot study, 10 undergraduate students were recruited to participate in think-aloud, semi-structured cognitive interviews, a qualitative method used widely in survey methodology (Beatty & Willis, 2007). The interviews were conducted by the first author. During the interview, the students were asked to read through the scale items, share whether these items made them think of their experiences with people with disabilities and provide details about the experiences they shared. In addition, the students were asked about their understanding of the items and whether there were any confusions or ambiguities about the items. The interviewer asked additional follow-up questions for further probing whenever necessary (Beatty & Willis, 2007). The qualitative data collected from this phase were analyzed by content analysis (Krippendorff, 2004) and used as validity evidence based on response to processes.

In the second pilot study, the authors administered the survey to 50 undergraduate students. To avoid order effect, the items were randomly ordered. Of 50 responses, 8 were incomplete and were not included in the analysis, resulting in a total of 42 valid responses. The data collected in this part of the pilot study were used to estimate reliability and revise the items based on the results of reliability. Cronbach's alpha was used to calculate reliability (or internal consistency of the items measuring the same

sub-construct). Two items (“I don’t know how to interact with people with disabilities” and “I am uncomfortable around people with disabilities”) were reverse coded in the analysis because they were negatively worded.

Phase 3. Validation

In this phase, the revised scale was created on Qualtrics and the link was sent to undergraduate and graduate students who major in recreational therapy in a university in southeastern region and a university in eastern region. Administering surveys online is an increasingly popular mode in survey methodology. It has many advantages over traditional paper-and-pencil mode, such as low cost and convenience, especially for participants who are frequent online users (Fan & Yan, 2010). A total of 280 surveys were completed online. The data collected from this sample were used for validity evidence based on internal structure. Nearly half of the data randomly generated by SPSS were used for the Exploratory Factor Analysis (EFA). Results of the EFA were analyzed and revisions were then made for the scale. Another half of the data were used for the Confirmatory Factor Analysis (CFA) based on the revised scale.

Results

Phase 1. Survey Development

There was a total of 35 items initially written by the first author. Three items were removed after several rounds of discussion with the second author. This resulted in a draft with 11 items for sympathy, 10 items for empathy, and 11 items for advocacy. This draft and a table of specifications of the survey were then sent to eight experts for review based on a table of specification. Most of the experts provided a match between the construct and scale items that was similar to that in the table of specifications. However, a few of the experts asked for more differentiation between sympathy and empathy. The two authors reviewed all the items three more times and made changes to a few items in response to this suggestion. Some of the experts also made suggestions about the directions for completing the scale, and others made suggestions about the use of select words in the items. For example, they suggested that the authors use the terms ‘plan’ rather than ‘want’ and ‘more’ rather than ‘fully’ in the items that represented advocacy.

Phase 2. Pilot Study

The authors conducted cognitive interviews with 10 undergraduate students in the recreational therapy program and analyzed the results with the use of content analysis. The results indicated that the items allowed students to reflect on their experiences with people with disabilities and describe their attitudes towards people with disabilities in different scenarios. Based on the analysis of students’ cognitive interviews, the authors also made a few changes to the items. For instance, the word “empathy” was removed and replaced with descriptions of empathetic reactions. The item “I am glad that I don’t have a disability” was removed because a few students believed this item may have negative connotations, which could cause respondents to either skip the item or not respond honestly. Some students indicated that not all respondents would know the definition of empathy or understand the difference between sympathy and empathy. This comment was consistent with experts’ feedback and was considered when we reviewed the items again. Although the scale was further revised, the authors kept a

total of 32 items because most of the feedback was about the content and wording of the items rather than the structure of the scale.

The scale was then administered to 42 participants. Reliability evidence that focused on internal consistency of the items was obtained from Cronbach's alpha. The alphas of 11 items measuring sympathy, 10 items measuring empathy, and 11 items measuring advocacy were 0.61, 0.73, and 0.88, respectively. Although the Cronbach's alpha of 11 items measuring advocacy was excellent, the alpha of the items measuring sympathy was less than adequate and the alpha of the items measuring empathy was just adequate. The authors also checked all the alphas with the deletion of the items and found that deletion of any item did not increase the alpha coefficients.

To further understand the reason for the low alphas in the items measuring sympathy and empathy, the authors re-examined the sub-constructs, their operational definitions, and wordings of the items and decided to either remove some items or rewrite others. For instance, the item "I feel ok around people with disabilities" that originally measured sympathy was removed because it appeared to measure both sympathy and empathy. Two negatively worded items "I don't know how to interact with people with disabilities" and "I am uncomfortable around people with disabilities" were changed to "I feel nervous interacting with people with disabilities" and "I feel nervous around people with disabilities" because feeling nervous was identified in previous studies as one characteristic of feeling sympathy. The item "I want it to be easier for people with disabilities go to different places" was also removed because it was found to measure both empathy and advocacy. After changes were completed, the final scale had a total of 29 items, with 10 items measuring sympathy and advocacy and 9 items measuring empathy.

Phase 3. Validation

The sample of 280 participants used in this phase included predominantly female (90%), undergraduate students (86%) who were majoring in recreational therapy (89%). In addition, 60% of the participants were working in therapy-related fields, mostly in recreational therapy. Seventy percent reported enrolling in courses that focused on disabilities, 50% either currently worked or have worked with people with disabilities, and 40% had taken a workshop, seminar, or course that focused on disabilities.

The exploratory and confirmatory analyses were conducted with the data collected from 280 participants to provide validity evidence based on internal structure. The dataset was randomly split into two roughly similar samples, with one sample having a total of 132 participants and the other having a total of 148 participants. The first half was used to conduct the EFA and the second half was used for the CFA. Both analyses were performed in Mplus (Version 8.1) because it is a powerful latent variable modeling program, and all the variables were treated as categorical (Asparouhov & Muthén, 2010).

The EFA results showed that the three-factor model was significantly better than two-factor model ($\chi^2(348) = 616.43, p < .001$). According to Hu and Bentler (1999), the fit was considered adequate when CFI and TLI are 0.90 and higher and SRMR and RMSEA are 1.0 and lower. Therefore, the fit indices of the EFA were close to adequate: CFI (Comparative Fit Index) = 0.85, TLI (Tucker-Lewis Index) = 0.82, RMSEA (Root Mean Square Error of Approximation) = 0.076, and SRMR (Standardized Root Mean

Square Residual) = 0.13. Based on Henson and Roberts (2006), items with factor loadings lower than .35 should be removed. A further investigation of the factor structure indicated that sympathy and advocacy had much better structure and better factor loadings of the items than empathy (see Table 1). More specifically, two out of the 10 items measuring sympathy had weak loadings on the construct (statements 2 and 10). Although item 10 had a stronger loading on the construct of advocacy, the value was only .25. This was the same with items 12 and 13 measuring empathy. These four statements were removed from the scale. Two more items measuring empathy (statements 14 and 18) had very weak loadings on empathy but had acceptable loadings on advocacy. In addition, items 22 and 25 measuring the construct of advocacy, which are both focused on accessibility, had comparable factor loadings on empathy and advocacy. The authors examined the four statements and concluded that statements 14 and 18 were not consistent with the conceptualization of advocacy construct and that items 22 and 25 were closer to items measuring empathy. Therefore, items 14 and 18 were removed and items 22 and 25 were moved to measure empathy. These changes resulted in a 23-item scale, with 8 items measuring sympathy, 7 items measuring empathy, and 8 items measuring advocacy (see Table 2).

A CFA was conducted with the other half of the responses based on the 23-item scale derived from the EFA. The fit indices of the analysis were as follows: CFI = 0.92, TLI = 0.91, RMSEA = 0.075, and SRMR = 1.21. These numbers indicated an overall adequate fit (Hu & Bentler, 1999) and an improved fit between the data and the model, compared with the fit indices resulting from the EFA. The modification indices in Mplus, which flag issues in the model fit and suggest changes in the model, provided very few changes in the model. Factor loadings of all the items were examined. Only item 6 (“I feel sympathetic toward people with disabilities”) and item 16 (“I understand how people with disabilities feel”) had factor loadings lower than 0.40 (see Table 2); therefore, both were removed from the scale. This resulted in a 21-item scale, with 7 items measuring sympathy, 6 items measuring empathy, and 8 items measuring advocacy (see Table 2). Another CFA was conducted with the 21 items and yielded better fit indices: CFI = 0.94, TLI = 0.93, RMSEA = 0.072, and SRMR = 1.13. These indices suggested that the fit of the final 21-item model was close to excellent fit. Based on Hu and Bentler (1999), model fit was considered excellent when CFI and TLI are 0.95 and higher and SRMR and RMSEA are 0.80 and lower.

The Cronbach’s alphas of the final statements measuring the three constructs were 0.80, 0.68, and 0.87, respectively. Further analyses of item-total statistics showed that any removal of the item from the scale did not increase the reliability. Compared with the Cronbach’s alphas of the three constructs in the pilot study, the alpha of sympathy was much improved (0.61 in pilot study) and the alpha of advocacy was comparable to the value in the pilot study (i.e., .88). However, the alpha of empathy was decreased (0.73 in pilot), which may be due to reduced number of items. Furthermore, the first factor, sympathy, was found to be negatively correlated with the other two factors, empathy ($r = -.34$) and advocacy ($r = -.24$) but empathy and advocacy were strongly, positively correlated ($r = .82$). This suggests a better discriminant validity between sympathy and the other two constructs than that between empathy and advocacy.

Table 1 **Discussion**
Items, Factor Loadings, Estimated Residual Variances of Exploratory Factor Analysis Results

Items	Factor 1	Factor 2	Factor 3
<i>Sympathy</i>			
1. I feel sad for people with disabilities.	.77		
2. I am glad that I don't have to worry about places being accessible for me.	.32		
3. I feel bad about people with disabilities because they cannot do things I can do.	.68		
4. I feel nervous interacting with people with disabilities.	.56		
5. I feel nervous being around people with disabilities.	.58		
6. I feel sympathetic toward people with disabilities.	.45		
7. I feel sorry for people with disabilities.	.75		
8. I feel fortunate that I don't have a disability.	.50		
9. I feel sorry when I see people with disabilities having difficulties doing things.	.47		
10. I feel upset when I see people with disabilities being treated poorly.	-.11		.25
<i>Empathy</i>			
11. I see the world through the eyes of people with disabilities.		.57	
12. I understand that people with disabilities can lead a normal life.	.03		.10
13. I understand why people with disabilities get frustrated by people without disabilities.	.02		.34
14. I understand why people with disabilities get annoyed with how people look at them.	.08		.48
15. I can put myself in the position of the person with a disability.		.76	
16. I understand how people with disabilities feel.		.71	
17. I see people with disabilities as people like me.		.22	.39
18. I think people with disabilities are regular people.	-.04		.44
19. I understand that people with disabilities can do all of the same things I can do.		.27	.36
<i>Advocacy</i>			
20. I want to do something for people with disabilities.			.62
21. I plan to stand up for people with disabilities.			.60
22. I think about ways to make the world more accessible.	.37		.43
23. I want to help make it easier for people with disabilities go to different places.			.56
24. In general, I think a lot of improvements should be made to help people with disabilities.			.56
25. I think about ways that places could be made more accessible for people with disabilities.	.46		.43
26. I want to help the world become more inclusive.			.57
27. I think everyone is responsible for making the world more accessible.			.41
28. I think it's important to better understand challenges people with disabilities face.			.54
29. I want to help create more opportunities for people with disabilities to do what they enjoy.			.72

Note. Items in bold were removed from the scale due to extremely low factor loadings in one or two factors (i.e., lower than .35). Italicized items in bold were the ones moved from advocacy to measure empathy.

Recommendations for Research

This study reported the iterative process of initially developing and validating the PoDS scale on individuals' perspectives about people with disabilities. The process followed the most recent psychometrics standards in educational and psychological testing and resulted in an improved instrument. More specifically, the Cronbach's alphas of the final items measuring sympathy increased from .61 to .80 and the alpha of the items measuring advocacy remained at the same excellent level (.87). Although the

Table 2*Items, Factor Loading, Standard Error of Confirmatory Factor Analysis Results*

Items	Loading	S. E.
<i>Sympathy</i>		
1. I feel sad for people with disabilities.	.76	.04
3. I feel bad about people with disabilities because they cannot do things I can do.	.73	.04
4. I feel nervous interacting with people with disabilities.	.84	.04
5. I feel nervous around people with disabilities.	.86	.04
6. I feel sympathetic toward people with disabilities.	.26	.08
7. I feel sorry for people with disabilities.	.83	.04
8. I feel fortunate that I don't have a disability.	.54	.07
9. I feel sorry when I see people with disabilities having difficulties doing things.	.41	.07
<i>Empathy</i>		
11. I see the world through the eyes of people with disabilities.	.54	.07
15. I can put myself in the position of the person with a disability.	.41	.07
16. I understand how people with disabilities feel.	.21	.08
17. I see people with disabilities as people just like me.	.51	.08
19. I understand that people with disabilities can do all of the same things I can do.	.55	.07
22. I think about ways to make the world more accessible.	.78	.05
25. I think about ways that places could be made more accessible for people with disabilities.	.88	.04
<i>Advocacy</i>		
20. I want to do something for people with disabilities.	.88	.05
21. I plan to stand up for people with disabilities.	.94	.04
23. I want to help make it easier for people with disabilities go to different places.	.88	.04
24. In general, I think a lot of improvements should be made to help people with disabilities.	.67	.06
26. I want to help the world become more inclusive.	.87	.06
27. I think everyone is responsible for making the world more accessible.	.68	.06
28. I think it's important to better understand challenges people with disabilities face.	.80	.07
29. I want to help create more opportunities for people with disabilities to do what they enjoy.	.99	.03

Note. Items in bold were removed from final scale due to low factor loadings (i.e., lower than .35).

The order of the items were kept the same in order to compare with the EFA model. Future use of the scale does not have to follow this order.

Cronbach's alpha of the items measuring empathy slightly decreased (.68), it was still very close to the adequate level. The reduced reliability of final empathy statements may be mainly because there were four fewer items. Lower reliability is not uncommon for the construct measured by fewer items. This may be worthwhile when aiming for a better validity. However, this may require adding a few more items to measure empathy. It may also require re-examining items removed from the final instrument to identify possible ambiguities and vagueness between empathy and advocacy by using cognitive interviews and think-aloud methods. The same process can also be applied for items measuring sympathy because there is also room for adding a few more items to improve its reliability.

This study showed that the scale had sufficient validity evidence based on content, response process, and internal structure. It also found that the factor loadings of most items in the final instrument were between .70 and .90, which further supports the validity of the instrument. However, the factor loadings of advocacy items were higher than those of empathy and sympathy items. A few empathy and sympathy items had factor loadings that were just above .40, such as item 9 “I feel sorry when I see people with disabilities having difficulties doing things” and item 15 “I can put myself in the position of the person with a disability.” These two items may need more scrutiny when the instrument is validated with other populations in the future. If they continue to have low factor loadings in future studies, revisiting the literature about empathy and sympathy and conducting cognitive interviews about these items may be warranted to identify possible issues. Once all constructs are at least adequate future validation studies with a larger sample are also needed. Although a sample size of 100-200 is usually recommended for a CFA study (Kline, 2005), a larger sample size usually leads to better results, particularly when conducting a CFA based on structural modeling.

Two negatively worded items in the original scale, “I don’t know how to interact with people with disabilities” and “I am uncomfortable around people with disabilities,” were revised to positive items due to their initial inconsistency with other items. This change resulted in better items and better internal consistency. This process is in line with previous findings. Negatively worded items in the instrument have been a controversy in survey methodology (Barnette, 2000; DiStefano & Motl, 2006; Roszkowski & Soven, 2010). Previous studies have found method effects that were associated with negatively worded items in self-reported surveys (DiStefano & Motl, 2006). They have also demonstrated that the inclusion of negatively worded items in a direct negative mode decreased the internal consistency of the instrument and that changing these items to direct positive mode substantially improved the internal consistency (Roszkowski & Soven, 2010). However, further investigation is needed to determine whether these revised items still function well in the scale with other populations.

Another interesting finding of this study is related to the negative correlation between the sub-construct of sympathy and the other two sub-constructs. Theoretically, the three sub-constructs should be consistent with each other and differentiated from the term, pity. Whereas pity was once used to describe feelings of tenderness toward, and a desire to lessen, a person’s suffering (Wilmer, 1968), it eventually shifted to a way of describing a negative feeling (e.g., whining or victimization) (Gerdes, 2011). To illustrate, a higher sympathy response may indicate higher empathy and advocacy responses. However, this study demonstrates the opposite. This may suggest that possible competing relationships exist between sympathy and empathy as well as between sympathy and advocacy. It may also show that higher sympathy response does not necessarily lead to a higher empathy or advocacy responses. More specifically, sympathy, which is the first level of how individuals perceive or feel about people with disabilities, may evolve into two different, or even opposite, higher levels of feelings: one is empathy, which eventually leads to being willing to advocate for people with disabilities, the other is pity, which indicates unwillingness to be more engaged with people with disabilities. However, these claims may need further examination by using additional qualitative studies that focus on individuals’ experiences with people with disabilities.

Implications for Practice

People with disabilities seek to be treated as equals in any relationship (Morrison et al., 2008). People with positive attitudes toward people with disabilities believe that people with disabilities are capable of making decisions about themselves and being productive members of society (Tervo & Palmer, 2004). Practitioners with an empathetic perspective are more likely to facilitate a healthy helping relationship through mutual trust and shared understanding than those who do not (Mearns & Thorne, 2007). Disability trainings, such as those that include the use of disability simulation activities, have the potential to increase levels of empathy and improve individuals' attitudes toward people with disabilities (Geçkil et al., 2017) when facilitated and debriefed correctly (McGowan, 1999). More intensive experiences serve to move participants from an empathetic perspective to an advocacy perspective (McKenney, 2018). This perspective is one that involves an increase in desire to do more to improve the lives of people with disabilities whether on a micro (e.g., explaining to someone else the importance of using sensitive terminology) or macro level (e.g., advocating for a policy change at an organization). The PoDS can be used to better measure the continuum of the evolving perspectives of participants who attended disability trainings or students who enrolled in similar courses or entered similar programs.

Recreational therapists are expected to advocate on the behalf of people who have been oppressed or denied needed services (Dattilo, 2012). Understanding where a person falls on a continuum of perspectives on disability can serve to assist recreational therapists in determining how to individualize educational services to best assist in promoting advocacy. The PoDS, for example, could be administered before students begin learning activities (e.g., disability simulation and debriefing activities) as part of their course requirements in any human or health care service-related academic programs. The PoDS could be, similarly, administered before and after the delivery of programs, such as the several special education advocacy training programs that, according to Burke et al. (2016), have surfaced in recent years across the United States and Europe.

The PoDS emerged from qualitative interviews with students who participated in extensive disability simulation activities as part of an inclusive recreation services course that is offered as part of a recreational therapy program. Their responses demonstrated an evolution of thinking that resulted in many of students making comments indicating that they wanted to advocate for people with disabilities. Dattilo (2012) argued that advocacy is necessary "...when ordinary actions have been unsuccessful in ensuring that a person's rights are being met" (p. 330). This statement also closely aligns with the concept of activism. When one becomes an activist, it is because that person became part of a new social movement (Searle-Chatterjee, 1999). Such individuals self-describe themselves as activists, assume a leadership role in a change campaign, and expend a considerable amount of time on a campaign. The course used in the McKenney (2018) study did not focus on activism, *per se*, and the PoDS did not result in participants identifying campaigns of interest. However, the results obtained from the PoDS can provide insights for designing future courses that could identify ways participants could move from advocate to activist. Although the intent of most disability-related trainings and courses are to increase knowledge about disability, improve attitudes, and increase empathy, recent research has demonstrated that when afforded

opportunities for more intensive trainings and debriefings, participants might develop an advocacy perspective, as well. Perhaps, some will use this perspective to also serve as an activist. With that, a study could be designed that includes an examination of the effects of academic instruction on advocacy and activism.

Limitations of the Study

Although this study provides researchers and practitioners with a reliable and valid scale measuring individuals' perspectives about people with disabilities, it is not without limitations. First, the sample of this study consisted of undergraduate and graduate students who were majoring in recreational therapy. Due to more interaction with people with disabilities, they may show patterns in sympathy, empathy, and advocacy that are different from those of other populations. Future validation studies should be conducted with other populations, such as students in other health-related professions, and people with limited to no experience working with people with disabilities. Second, only three types of validity evidence were examined for the PoDS scale in this study. Future research will involve examining other aspects of validity evidence, such as validity evidence based on relations, including convergent validity for this scale and other scales measuring the same construct and discriminant validity for this and other scales measuring different constructs. These future studies are in line with the principle that instrument validation is always an ongoing process that can be conducted for different aspects of validity with different populations (AERA et al., 2014).

Conclusion

The literature on negative attitudes directed toward people with disabilities consistently reveals barriers to their participation in all aspects of life. Recent research demonstrates that intensive trainings and extensive debriefings can result in participants moving from a sympathetic perspective to an empathetic perspective, and ultimately an advocacy perspective (McKenney, 2018). The PoDS emerged from this research and provides a tool for measuring participants' responses to disability trainings or similar trainings and courses on a continuum of sympathy, empathy, and advocacy. This study summarizes the initial process of developing and validating the PoDS scale. It also provides suggestions for how it can measure participants' changes on a continuum of responses.

References

- AERA (American Educational Research Association, APA (American Psychological Association), & NCME (National Council on Measurement in Education). (2014). *The standards for educational and psychological testing*. AERA.
- Asparouhov, T., & Muthen, B. (2010). *Plausible values for latent variables using Mplus*. <http://www.statmodel.com/download/Plausible.pdf>
- Artino Jr, A. R., La Rochelle, J. S., Dezee, K. J., & Gehlbach, H. (2014). Developing questionnaires for educational research: AMEE Guide No. 87. *Medical teacher*, 36(6), 463–474. <https://doi.org/10.3109/0142159X.2014.889814>
- Asparouhov, T., & Muthen, B. (2018). *SRMR in Mplus*. <https://www.statmodel.com/download/SRMR2.pdf>

- Barnette, J. J. (2000). Effects of stem and Likert response option reversals on survey internal consistency: If you feel the need, there is a better alternative to using those negatively worded stems. *Educational and Psychological Measurement, 60*(3), 361–370. <https://doi.org/10.1177/00131640021970592>
- Baron-Cohen, S. (2009). Autism: The empathizing-systemizing (E-S) theory. *Annals of the New York Academy of Sciences, 1156*, 68–80. <https://doi.org/10.1111/j.1749-6632.2009.04467.x>
- Batson, C. D. (1987). Prosocial motivation: Is it ever truly altruistic? In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 20, pp. 65–122). Academic Press.
- Beatty, P. C., & Willis, G. B. (2007). Research synthesis: The practice of cognitive interviewing. *Public Opinion Quarterly, 71*, 287–311. <https://doi.org/10.1093/poq/nfm006>
- Burke, M. M., Goldman, S. E., Hart, M. S., & Hodapp, R. M. (2016). Evaluating the efficacy of a special education advocacy training program. *Journal of Policy and Practice in Intellectual Disabilities, 13*(4), 269–276. <https://doi.org/10.1111/jppi.12183>
- Charbonneau, D., & Nicol, A.A.M. (2002). Emotional intelligence and prosocial behaviors in adolescents. *Psychological Reports, 90*, 361–370. <https://doi.org/10.2466/PRO.90.2.361-370>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research*. SAGE Publications.
- Dattilo, J. (2012). *Inclusive recreation services* (3rd ed.). Venture.
- de Waal, F. B. M. (2009). Putting altruism back into altruism: The evolution of empathy. *Annual Review of Psychology, 59*, 279–300. <https://doi.org/10.1146/annurev.psych.59.103006.093625>
- Decety, J., & Moriguchi, Y. (2007). The empathic brain and its dysfunction in psychiatric populations: Implications for interventions across clinical conditions. *BioPsychoSocial Medicine, 1*(22), 1–21. <https://doi.org/10.1186/1751-0759-1-22>
- DiStefano, C., & Motl, R. W. (2006). Further investigating method effects associated with negatively worded items on self-report surveys. *Structural Equation Modeling, 13*(3), 440–464. https://doi.org/10.1207/s15328007sem1303_6
- Dovidio, J. F., Piliavin, J. A., Schroeder, D. A., & Penner, L. (2006). *The social psychology of prosocial behavior*. Lawrence Erlbaum Associates Publishers.
- Eisenberg, N., & Eggum, N. D. (2009). Empathic responding: Sympathy and personal distress. In J. Decety & W. Ickes (Eds.), *Social neuroscience. The social neuroscience of empathy* (pp. 71–83). MIT Press. <http://doi.org/10.7551/mitpress/9780262012973.003.0007>
- Escalas, J. E. & Stern, B. B. (2003). Sympathy and empathy: Emotional responses to advertising dramas. *Journal of Consumer Research, 29*, 566–578.
- Fan, W., & Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior, 26*, 132–139. <https://doi.org/10.1016/j.chb.2009.10.015>
- Findler, L., Vilchinsky, N., & Werner, S. (2007). The multidimensional attitudes scale toward persons with disabilities (MAS): Construction and validation. *Rehabilitation Counseling Bulletin, 50*(3), 166–176. <https://doi.org/10.1177/00343552070500030401>

- Frith, C. D., & Singer, T. (2008). The role of social cognition in decision making. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 363(1511), 3875–3886. <https://doi.org/10.1098/rstb.2008.0156>
- Geçkil, E., Kaleci, E., Cingil, D. & Hisar, F. (2017). The effect of disability empathy activity on the attitude of nursing students toward disabled people: A pilot study. *Contemporary Nursing*, 53(1), 82–93. <https://doi.org/0.1080/10376178.2017.1292143>
- Gerdes, K. E. (2011). Empathy, sympathy, and pity: 21st-century definitions and implications for practice and research. *Journal of Social Service Research*, 37(3), 230–241. <https://doi.org/10.1080/01488376.2011.564027>
- Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological Measurement*, 66, 393–416. <https://doi.org/10.1177/0013164405282485>
- Hepworth, D. H., & Larsen, J. A. (1986). *Direct social work practice: Theory and skills* (2nd ed.). Dorsey Press.
- Hergenrath, K., & Rhodes, S. (2007). Exploring undergraduate student attitudes toward persons with disabilities: Application of the disability social relationship scale. *Rehabilitation Counseling Bulletin*, 50(2), 66–75. <https://doi.org/10.1177/00343552070500020501>
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55. <https://doi.org/0.1080/10705519909540118>
- Hume, D. (1739/1888). *A treatise of human nature*. Calrendon Press.
- Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development*, 82(2), 13–30. <http://doi.org/10.1111/mono.12296>
- Jeffrey, D. (2016). Empathy, sympathy and compassion in health care: Is there a problem? Is there a difference? Does it matter? *Journal of the Royal Society of Medicine*, 109(12), 446–452. <https://doi.org/10.1177/0141076816680120>
- Johnson, R. B., & Christensen, L. (2020). *Educational research*. SAGE Publications.
- Kieffer, K. M. (1999). An introductory primer on the appropriate use of exploratory and confirmatory factor analysis. *Research in the Schools*, 6, 75–92.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). Guilford Press.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. SAGE Publications.
- Kutchins, H., & Kutchins, S. (1978). Advocacy and social work. In G. H. Weber & G. J. McCall (Eds.), *Social scientists as advocates: Views from the applied professions* (pp. 13–46). SAGE Publications.
- Malhotra, N. K. (2005). Attitude and affect: New frontiers of research in the 21st century. *Journal of Business Research*, 58, 477–482. [https://doi.org/10.1016/S0148-2963\(03\)001462](https://doi.org/10.1016/S0148-2963(03)001462)
- Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indices and dangers in overgeneralizing Hu and Bentler's 1999 findings. *Structural Equation Modeling*, 11, 320–341. https://doi.org/10.1207/s15328007sem1103_2

- McGowan, J. P. (1999). The effects of disability simulations on attitudes toward persons with disabilities. (Doctoral dissertation, Seton Hall University). *Dissertation Abstracts International*, 60, 1351.
- McKenney, A. (2018). Attitude changes following participation in disability simulation activities. *Therapeutic Recreation Journal*, 52(3), 215–236. <https://doi.org/10.18666/TRJ2018-V52-I3-8543>
- Mearns, D. J., & Thorne, B. (2007). *Person-centered counselling in action* (3rd ed.). SAGE Publications.
- Merenda, P. F. (1997). A guide to the proper use of factor analysis in the conduct and reporting of research: Pitfalls to avoid. *Measurement and Evaluation in Counseling and Development*, 30, 156–164. <https://doi.org/10.1080/07481756.1997.12068936>
- Mertens, D. M. (2020). *Research and evaluation in education and psychology* (5th ed.). SAGE Publications.
- Morgan, P. E., & Lo, K. (2013). Enhancing positive attitudes toward disability: Evaluation of an integrated physiotherapy program. *Disability and Rehabilitation*, 35(4), 300–305. <https://doi.org/10.3109/09638288.2012.691941>
- Morrison, E., George, E. H., & Mosqueda, L. (2008). Primary care for adults with physical disabilities: Perceptions from consumer and provider focus groups. *Family Medicine*, 40(9), 645.
- Oliver, M. (1990). The individual and social models of disability. <https://disabilitystudies.leeds.ac.uk/wp-content/uploads/sites/40/library/Oliver-in-soc-dis.pdf>
- Peniston, L. C. (1998). *Developing recreation skills in persons with learning disabilities*. Sagamore.
- Ramsey, R. M. (2017). *Disability: Becoming an advocate for persons with disabilities and understanding the history of the disability movement in the United States* (Senior Theses). https://scholarcommons.sc.edu/senior_theses/196
- Roszkowski, M. J., & Soven, M. (2010). Shifting gears: Consequences of including two negatively worded items in the middle of a positively worded questionnaire. *Assessment and Evaluation in Higher Education*, 35(1), 117–134. <https://doi.org/10.1080/02602930802618344>
- Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, 99, 323–338. <https://doi.org/10.3200/JOER.99.6.323-338>
- Searle-Chattejee, M. (1999). Occupation, biography and new social movements. *The Social Review*, 47, 258–277. <https://doi.org/10.1111/1467-954X.00172>
- Secombe, J. A. (2007). Attitudes towards disability in an undergraduate nursing curriculum: The effects of a curriculum change. *Nurse Education Today*, 27, 445–451. <https://doi.org/10.1016/j.nedt.2006.08.003>
- Segal, E. A. (2007). Social empathy: A tool to address the contradiction of working but still poor. *Families in Society: The Journal of Contemporary Social Services*, 88(3), 333–337. <http://doi.org/10.1606/1044-3894.3642>
- Seligman, M., & Darling, R. B. (2007). Occupation, biography, and new social movements. *The Sociological Review*, 47, 258–277. <https://doi.org/10.1111/1467-954X.00172>
- Shamay-Tsoory, S. G. (2011). The neural bases for empathy. *The Neuroscientist*, 17(1), 18–24. <https://doi.org/10.1177/1073858410379268>

- Sympathy. (n.d.). <https://en.wikipedia.org/wiki/Sympathy>
- Tervo, R. C., & Palmer, G. (2004). Health professional student attitudes towards people with disability. *Clinical Rehabilitation, 18*, 908–915. <https://doi.org/10.1191/0269215504cr820oa>
- Thorndike, R. M., & Thorndike-Christ, T. M. (2010). *Measurement and evaluation in psychology and education*. Pearson.
- Uysal, A., Albayrak, B., Koçulu, B., Kan, F., & Aydın, T. (2014). Attitudes of nursing students toward people with disabilities. *Nurse Education Today, 34*, 878–884. <https://doi.org/10.1016/j.nedt.2013.09.001>
- Varcarolis, E. M. (2002). *Foundations of psychiatric mental health nursing: A clinical approach* (4th ed.). WB Saunders.
- Yuker, H. E., Block, J. R., & Younng, J. H. (1970). *The measurement of attitudes toward disabled persons*. <https://files.eric.ed.gov/fulltext/ED044853.pdf>
- Willis, G. (2005). *Cognitive interviewing: A tool for improving questionnaire design*. SAGE Publications.
- Wilmer, H. A. (1968). The doctor-patient relationship and the issues of pity, sympathy, and empathy. *British Journal of Medical Psychology, 41*, 243–248. <https://doi.org/10.1111/j.2044-8341.1968.tb02029.x>
- Wispé, L. (1986). The distinction between sympathy and empathy: To call forth a concept, a word is needed. *Journal of Personality and Social Psychology, 50*(2), 314–321. <https://doi.org/10.1037/0022-3514.50.2.314>
- Zahn-Waxler, C., & Radke-Yarrow, M. (1990). The origins of empathic concern. *Motivation and Emotion, 14*, 107–130. <https://doi.org/10.1007/BF00991639>