

PRESERVICE TEACHERS' ATTITUDES TOWARD STUDENTS WITH DISABILITIES: A STUDY OF CANDIDATES ENROLLED IN TEACHER PREPARATION PROGRAMS

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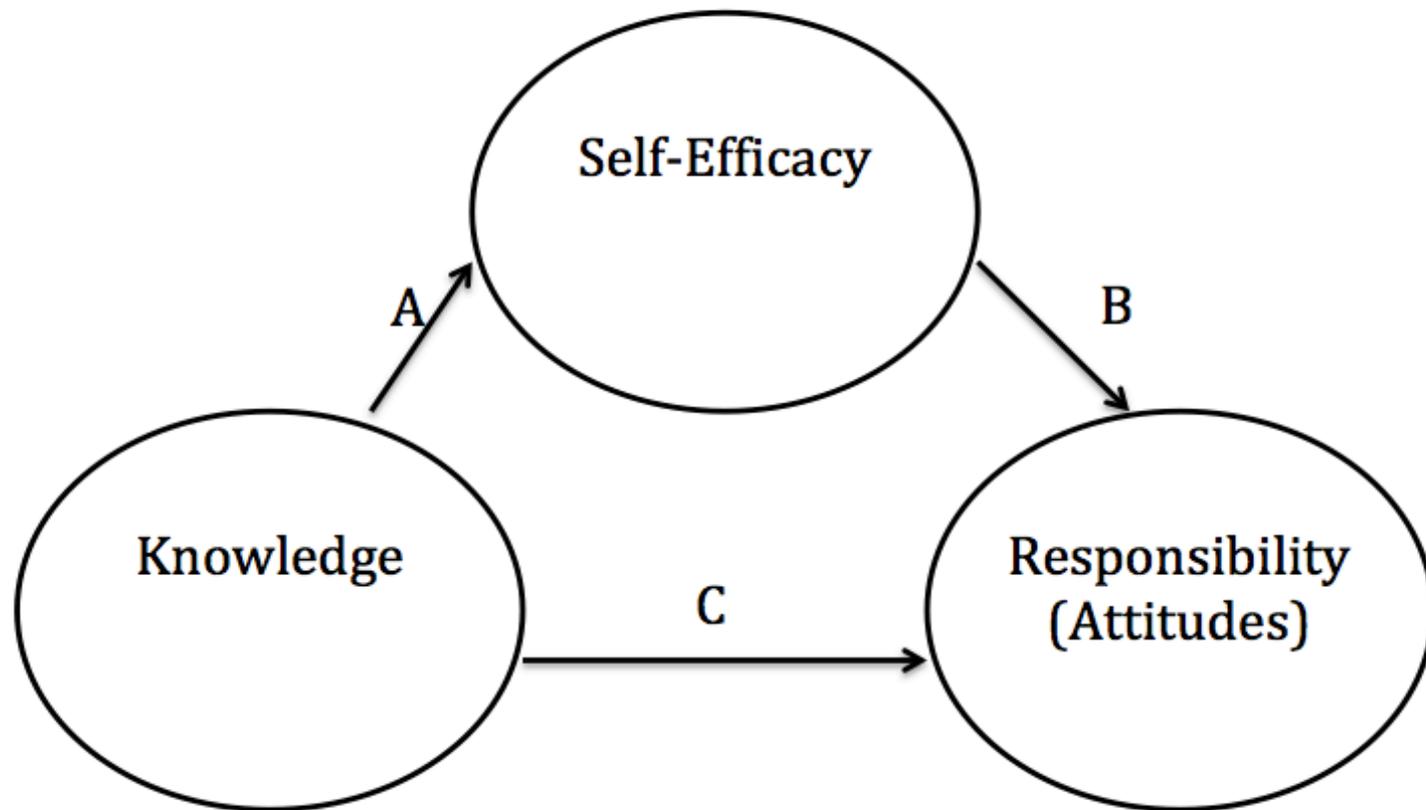


ABSTRACT

◆ Inclusion and Diversity

- ◆ Preservice teachers have little or no experience working with students with special needs.
- ◆ The goal of this research was to gain a better understanding of preservice teacher candidates' special education knowledge as related to self-efficacy and attitudes toward disabilities.

Research Methodology



Introduction

◆ Theoretical and Legal Framework

- Self-Efficacy refers to perceived capabilities for learning or performing actions at designated levels (Bandura, 1986).
- Teacher efficacy for working with students with disabilities is not only about teachers' judgments (or perceptions) about their own capabilities to successfully execute effective teaching practices, but also how this efficacy influences their own students' learning.

Introduction

◆ Theoretical and Legal Framework

- Davis and Layton (2011) concluded that teacher perceptions or attitudes may be the greatest predictor of successful inclusive classrooms.
- By identifying and studying attitudes, educators may better understand preservice teachers' attitudes about teaching children with disabilities and attempt to change negative attitudes (Aldrich, 2000).
- Teachers with more positive attitudes toward inclusion are more likely to adjust their instruction and curriculum to meet individual needs of students and have a more positive approach to inclusion (Taylor & Ringlaben, 2012).

Introduction

◆ Theoretical and Legal Framework

- In regards to knowledge regarding legal aspects, special education has consistently been the most litigated area in education, possibly due to insufficient knowledge of the Individuals with Disabilities Education Act (Katsiyannis & Herbst, 2004).
- Litigation is an issue, but also, political pressures on teachers and schools to provide high-quality education for all students has intensified as a result of federal mandates and widespread criticism of teachers and their preparation (Brownell, Sindelar, Kiely, & Danielson, 2010).

Introduction

◆ Research Questions

◆ The following research question was addressed in this study:

- Do the data support a model that posits self-efficacy as a mediator of knowledge of special education and attitudes toward working with students with disabilities?

◆ *Rationale*

- If the data fit the proposed mediation model, evidence will be present to show an influence of not only knowledge, but also self-efficacy, on attitudes of including students in the classroom.

Review of the Literature

- Teachers' knowledge and skills, together with their attitudes and beliefs, are crucial in the development of inclusive practice as in many cases, teachers feel ill prepared to deal with matters of diversity in their classrooms (Beacham & Rouse, 2012).
- Aldrich (2000) posited that personal knowledge, self-efficacy beliefs, and attitudes intermingle and impact preservice teachers' perceptions about their skills to teach all children (Aldrich, 2000).

Relationship between knowledge and attitudes

- Teacher content knowledge is important because it is a necessary, but not sufficient, condition for good teaching (Ball, Hill, & Bass, 2005).
- Cook (2002) found that teacher candidates did not feel adequately prepared to work in classrooms in which one or more students with disabilities were present

Relationship between knowledge and attitudes

- Davis and Layton (2011) concluded that teacher perceptions or attitudes might be the greatest predictor of successful inclusive classrooms.
- Shippen, et al., (2005) found that if general education teachers are less anxious about including students with disabilities, inclusion is likely to be successful, and that an introductory course in exceptionality significantly changed the attitudes of both future general and special educators.

Relationship between knowledge and attitudes

- Other studies have shown that attitudes of preservice teachers toward teaching students with special needs are generally positive (Lancaster & Bain, 2007). Increased levels of knowledge about special education students helped student teachers to be less anxious about including students with disabilities in their classrooms.
- Burke and Sutherland (2004) found a statistically significant relationship between knowledge of students with disabilities and attitudes towards inclusion.
- Kim (2011) found that the more special education coursework teachers had completed, the more positive their attitudes were toward inclusion.

Relationship between knowledge and attitudes

- Several studies have observed a relationship between teachers' knowledge and experience and their acceptance or resistance of including students with disabilities into general education classrooms (Gallagher, 1985; Pernell, McIntyre, & Brader, 1985, Stoler, 1992, Taylor, Richards, Goldstein & Schilit, 1997, Sack, 1998).
- Other studies have shown that there is a relationship between teachers' positive attitudes toward inclusion and specific education and training (Fulk & Hirth, 1994; Gemmell-Crosby & Hanzlik, 1994).

Relationship between knowledge and self-efficacy

- ◆ According to Pajares (1992), beliefs about teaching, which include perceptions about what it takes to be an effective teacher, are formed before a student enters college. These beliefs are either challenged or nurtured during the teacher training program (Minor, Onwuegbuzie, Witcher, & James, 2002).

Relationship between knowledge and self-efficacy

- ◆ Schunk (1989) found that efficacy beliefs are influenced by acquisition of cognitive skills, but they are not merely a reflection of them. Those with the same level of cognitive skill development differed in their intellectual performances depending on the strength of their perceived efficacy.

Relationship between knowledge and self-efficacy

- ◆ Effective intellectual functioning requires much more than simply understanding the factual knowledge and reasoning operations for given realms of activities. There is a major difference between possessing knowledge and being capable of proficient action. Students often know what to do but cannot translate that knowledge into proficient performance (Bandura, 1997).

Relationship between knowledge and self-efficacy

- ◆ According to Bandura (1997), the development of cognitive competences requires sustained involvement in activities. If appropriately structured, such pursuits provide the mastery experiences needed to build intrinsic interest and a sense of cognitive efficacy when they are lacking. However, many preservice teachers have little or no experience in working with students with special needs and as a result feel inadequately prepared for their future classrooms (Taylor & Ringlaben, 2012). They have not had the experiences required to build their sense of efficacy in working with students with disabilities.

Relationship between self-efficacy and attitudes

- According to Cook, Tankersley, Cook and Landrum (2000), another important factor determining the quality of inclusive education is the teachers' and student teachers' attitudes toward inclusive education.
- In teaching children with disabilities, teachers' sense of self-efficacy is an essential component of teacher preparedness that influences their attitude toward inclusion (Kim, 2012).
- As teachers' self-efficacy perceptions increase, so do their positive attitudes towards inclusive education. Teachers with low self-efficacy have negative attitudes towards inclusive education and are not receptive to it (Sarı, Çeliköz, & Seçer, 2009).

Relationship between self-efficacy and attitudes

- Effective inclusion teachers hold positive attitudes regarding inclusion, including a willingness to teach students with disabilities and take responsibility for their learning (Berry, 2010).
- The preservice teaching stage of a teaching career is an opportune time to intervene and promote more positive views and beliefs about inclusion and inclusive practices (Woodcock, Hemmings, & Kay, 2012).

Relationship between self-efficacy and attitudes

- The most consistent finding across existing studies is that teachers' willingness to integrate students is associated with the nature and severity of the student's disability. Studies have found that teachers are more willing to integrate students whose disabilities do not require additional responsibilities on their part (Soodak, Podell, & Lehman, 1998).
- Negative attitudes about students with disabilities are more likely to prevail when preservice teachers have no concept of what a disability entails, no previous contact, and no opportunity to learn about the disability (Aldrich, 2000).

Research Methods

◆ Participants

- Preservice teacher candidates enrolled in teacher preparation programs during the 2012-13 school year.
- Out of 410 participants, a little over half ($n = 258$) completed the survey.

Demographics

| Demographic | Description | N |
|-------------|------------------|-------------|
| Gender | Male | 35 (13.6%) |
| | Female | 222 (86%) |
| Race | Caucasian | 176 (68.2%) |
| | Hispanic | 58 (22.5) |
| | Other | 13 (5%) |
| | African American | 9 (3.5%) |
| | Asian | 2 (.8%) |

Demographics

| Demographic | Description | N |
|-------------------------|-----------------------------|-------------|
| Academic Classification | College seniors | 108 (41.9%) |
| | College sophomores | 63 (24.4%) |
| | College juniors | 59 (22.9%) |
| | Post-baccalaureate students | 21 (8.1%) |
| | College Freshman | 6 (2.3%) |
| Certification level | Elementary Education | 128 (49.6%) |
| | Secondary Education | 20.9% |
| | All-Level Education | 10.9% |
| | Middle School Education | 9.3% |
| | Other | 9.3% |
| Supplemental SPED | No | 91 (35.3%) |
| | Yes | 85 (32.9%) |
| | Unsure | 82 (31.8%) |

Demographics

| Demographic | Description | N |
|-------------------|-------------------|-------------|
| Future classrooms | Inclusive | 143 (55.4%) |
| | Non-inclusive | 79 (30.6%) |
| | Special Education | 36 (14%) |

Instruments

- Three measures were used in this study:
 - the Knowledge of Texas Special Education Survey, which consisted of questions developed by the researcher containing topics related to candidates' knowledge of special education laws and procedures as they relate to the competencies established by the Texas Education Agency,
 - the Teaching Students with Disabilities Efficacy Scale (Dawson, 2008),
 - the Opinions About Persons with Disabilities Scale (Aldrich, 2000).

Knowledge of Working with Students with Disabilities

- ◆ The Knowledge of Texas Special Education Survey was created to evaluate the knowledge that preservice candidates have regarding basic special education knowledge and procedures. One question was created for each of the twelve special education competencies used on the Texas Exam for Educator Standards.

Knowledge of Working with Students with Disabilities

- Current special education professionals rated the questions for content validity as subject matter expert raters. These professionals included special education professors at two universities, regional service center special education professionals, and school district personnel.
- Calculating internal reliability was not appropriate on these questions due to the heterogeneity of the items (i.e., each item was related to a single standard). Each item represents a separate construct, thus, factor analysis on this measure is not appropriate. Participants might have knowledge in some domains and not others.

Self-Efficacy for Teaching Children with Disabilities

- ◆ The Teaching Students with Disabilities Efficacy Scale (TSDDES) was originally developed to assess teachers' perceived efficacy for teaching students with disabilities. Grounded in the Social Cognitive Theory, specifically Bandura's Self-Efficacy Theory, this scale was designed to measure preservice general educators efficacy for teaching students with disabilities. Constructs such as classroom management, instructional strategies, impact on the students, and impact on the world were at the center of the item construction process (Dawson, 2008).

Self-Efficacy for Teaching Children with Disabilities

- Due to the limited evidence supporting validity and reliability of scores associated with the revised TSDDES, exploratory factor analysis was conducted with principal component analysis (PCA).
- Parallel analysis (Horn, 1965; O'Connor, 2000) was used to determine the number of factors to retain.
- 16 items with highest factor loadings were selected and accounted for 72.4% of the variance. Cronbach's alpha for these 16 items was high at .974.

Self-Efficacy for Teaching Children with Disabilities

Confirmatory factor analysis was conducted for further evaluation. Maximum likelihood estimation was employed to estimate all models. Cronbach's alpha remained high at .983.

| χ^2 | Df | p | CFI | TLI | RMSEA | L CI | H CI | FDS |
|----------|----|--------|------|------|-------|------|------|------|
| 15.875 | 9 | <0.000 | .994 | .989 | .058 | .000 | .104 | .963 |

Attitudes About Students with Disabilities

- ◆ The Inventory of Opinions About Persons with Disabilities Scale (IOPD) (Aldrich, 2000) was developed to collect preservice early childhood educator's self-report data related to inclusion, particularly preservice early childhood educators' beliefs, attitudes, and knowledge about students with disabilities and their inclusion in general education classrooms.

Attitudes About Students with Disabilities

- In the Aldrich (2000) study for the IOPD, a five-factor matrix was determined most interpretable.
- The factors discovered in the Aldrich (2000) study were used in the current study, specifically, the subscale “Attitudes and beliefs about inclusion”. This subscale was chosen due to the relationship to the constructs central to the present study’s theoretical basis.

Attitudes About Students with Disabilities

- Confirmatory factor analysis supported a single-factor model with five observed variables. Cronbach's alpha for the present sample reached .858.

| χ^2 | Df | p | CFI | TLI | RMSEA | L CI | H CI | FDS |
|----------|----|--------|-------|------|-------|------|------|------|
| 5.148 | 5 | <0.398 | 1.000 | .999 | .011 | .000 | .093 | .941 |

Procedures

- Fall 2012: distributed to field directors at 40 universities in Texas asking for participation from current student teachers.
- Spring 2013: Due to lack of participation in the fall, the target group was modified to include undergraduate and graduate students seeking initial certification at one university.

Analysis

- Structural Equation Modeling (SEM) was conducted using Mplus Editor (v7) to test the adequacy of the hypothesized model.
- SEM was chosen because it is a confirmatory technique that uses observed and latent variables. Some of the advantages of SEM are that it can control for measurement error, provides information on the degree of fit of the entire model, and is much more flexible than regression (Frazier, Tix, & Barron, 2004).
- Maximum likelihood estimate was used and all models were positive definite.

Analysis

- ◆ To test the significance of the mediated effect, the fit of the predictor-mediator-outcome model is compared with and without the direct path from the predictor and outcome constrained to zero. A mediational model is supported if the model with the direct path between the predictor and outcome does not provide a better fit to the data (i.e., the direct path between the predictor and outcome is not significant). As in regression, if the predictor-outcome path is zero with the mediator in the model, there is evidence of complete mediation (Frazier, Tix, & Barron, 2004).

Results

- The researcher created the Results of Knowledge of Texas Special Education Survey based on the competencies outlined on the Texas Exam for Educator Standards.
- All of the competency questions were recoded into new variables. Each question was coded into yes/no format to answer the question: “Was this question answered correctly?” All twelve questions were then summed to give a total correct score for each participant. This was done in order to facilitate running the full Structural Equation Model (SEM) using “Knowledge” as an observed variable.

Results

- The Inventory of Persons with Disabilities Scale (IOPD, Aldrich, 2000) was used in this study as a measure of attitude. The subscale used was the “Attitudes and beliefs about inclusion”.
- As the total mean of the IOPD is 5.74 (Std. Deviation .97692), this would indicate that candidates tend towards positive attitudes for having students with disabilities in their classroom. Overall, the IOPD is non-normally distributed, as shown by a negative skewness of $-.615$ and a negative kurtosis, or platykurtic, value of $-.151$.

Results

- The Teaching Students with Disabilities Efficacy Scale (Dawson, 2008) was used in this study to measure attitudes toward working with students with disabilities. This measure is based on a scale of 0 to 100, with 0 being “Certain I cannot do” and 100 being “Certain I can do”.
- The mean scores for the total scale are 87.93 (Std. Deviation 13.88). The positive kurtosis, or leptokurtic, value of 2.934 in conjunction with a negatively skewed value of -1.594 shown on this table indicates that candidates have a high sense of self-efficacy for working with students with disabilities.

Results

| | | Knowledge | Efficacy | Attitude |
|-----------|-------------------------------------|---------------------|---------------------|--------------|
| Knowledge | Pearson Sig. (2- tailed) N | 1 258 | | |
| Efficacy | Pearson Sig. (2- tailed) N | .199 .001 258 | 1 258 | |
| Attitude | Pearson Sig. (2- tailed) N | .352 .000 258 | .379 .000 258 | 1 258 |

Results

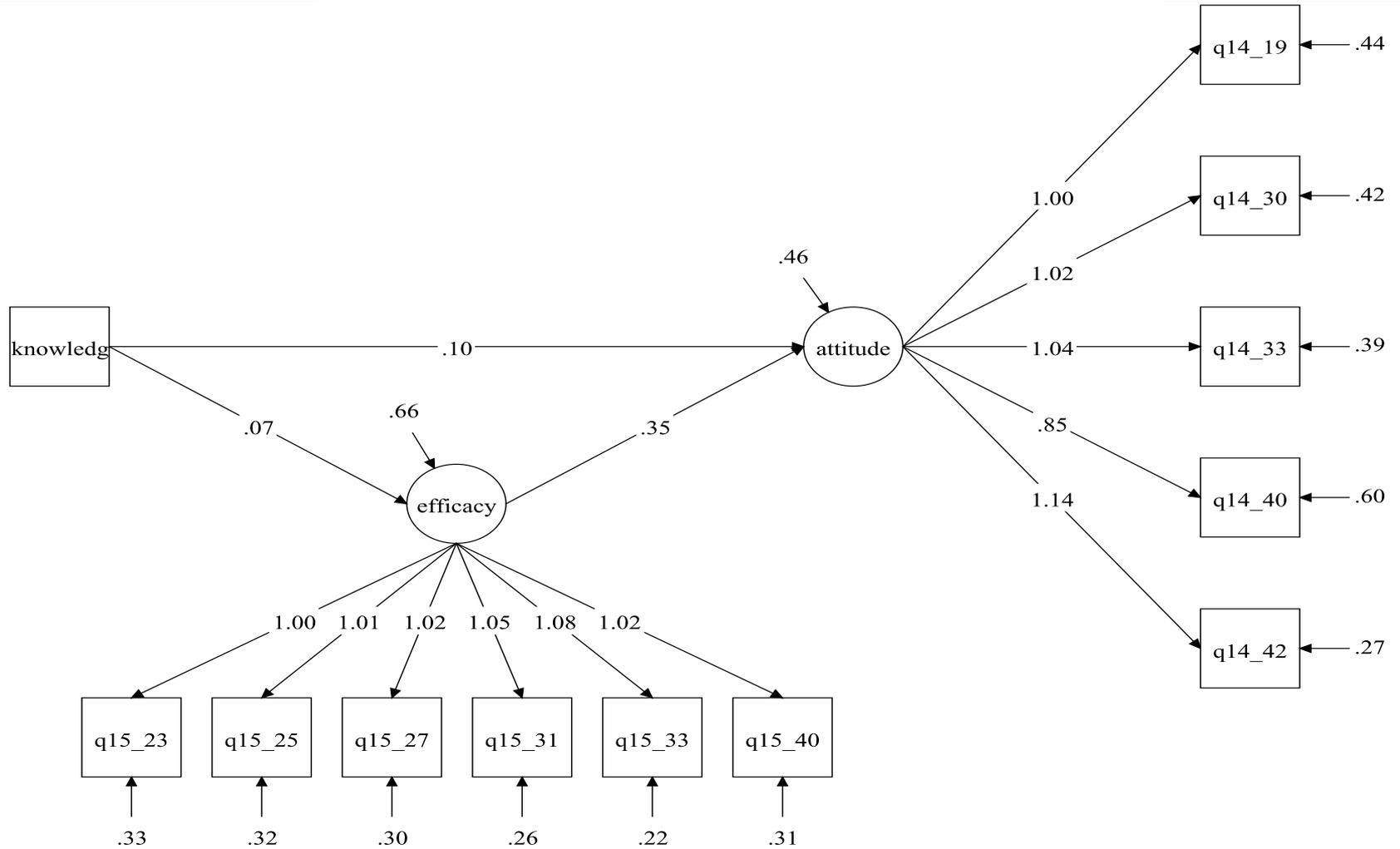
- ◆ The most common method for testing mediation was developed by Kenny and Baron (1986). According to this method, there are four steps in establishing that a variable (e.g., teacher self-efficacy) mediates the relation between a predictor variable (e.g., knowledge) and an outcome variable (e.g., attitudes).

Results

◆ Indirect Effects

| | Est. | SE | Z | Sig. |
|---|------|------|-------|------|
| Effects from Knowledge to Attitude via Efficacy | .012 | .010 | 1.268 | .205 |

Results



Discussion

- ◆ The following research question was addressed: Do the data fit a model that posits self-efficacy as a mediator of knowledge of special education and attitudes toward working with students with disabilities?
- ◆ A significant relationship between knowledge of special education and teaching self-efficacy, which is necessary for a mediating relationship, was not present. However, significant associations were found between knowledge and attitudes, as well as teaching self-efficacy and attitudes.

Relationship Between Knowledge and Attitudes

- Current finding that increased knowledge leads to more positive attitudes, even though the association was quite small.
- Consistent with some other studies (Bender et al., 1995; Burke & Sutherland, 2004; Fulk & Hirth, 1994; Gemmell-Crosby & Hanzlik, 1994, Powers, 1992; Shippen et al., 2005)

Relationship Between Knowledge and Self-Efficacy

- Relationship was non-significant in the current study.
- Bandura (1997) also emphasized that how individuals cognitively process and interpret efficacy-related information will help illuminate the developmental pathways to candidates' confidence. In essence, only having the experience may not be enough, but how the individual processes it will determine the effectiveness on self-efficacy.

Relationship Between Self-Efficacy and Attitudes

- As teachers' self-efficacy perceptions increase, so do their positive attitudes towards inclusive education.
- Consistent with other studies which also concluded that preservice teachers' perceived teaching efficacy is a powerful predictor of their attitudes toward inclusive education (Soodak et al., 1998; Weisel & Dror, 2006; and Savolainen, Engelbrecht, Nel, & Malinen, 2011).

Directions for Future Research

- Inclusion of participants who are currently teaching, in conjunction with preservice teachers would provide a more representative and generalizable sample of participants.
- The importance of teacher preparation programs should not be overlooked.
- Future research should also investigate how perceptions and beliefs change over time.
- It is important to conduct additional studies that can help rule out alternative mediational models (Frazier et al., 2004).

Conclusion

- Teacher self-efficacy does not mediate the effect between knowledge and self-efficacy.
- Implications for this study suggest that by increasing preservice teachers' self-efficacy, there will also be an increase in their attitudes toward working with students with disabilities.
- The findings of this study should generate further research involving the self-efficacy of preservice teachers and how it will affect their success in future inclusive classrooms based on their attitude toward working with students with disabilities.

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