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Ready to Teach All Children? Unpacking Early Childhood Educators' Feelings of Preparedness for Working with Children with Disabilities

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Abstract

Early childhood settings have the potential to support learners with diverse learning needs, including children with disabilities. However, if educators do not feel prepared to teach children with disabilities, this potential may not be fully realized. The current study examined early childhood educators' (n = 1,296) feelings of preparedness for working with children with disabilities, including predictors of preparedness, and associations with assessment practices. Research Findings: Nearly 70% of educators felt well prepared to teach typically developing children whereas only 20% felt well prepared to teach children with disabilities. Educational attainment and education-related major predicted feelings of preparedness. Furthermore,

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feelings of preparedness related to perceived importance of assessment and self-rating of assessment. Feelings of preparedness for working with children with disabilities mediated nearly all of the associations between educational experiences and assessment practices. Practice or Policy: Findings support the need for educator preparation programs to include course content related to working with children with disabilities and assessment practices. Implications for practice and educational requirements for early childhood educators are discussed.

Prevalence rates for children aged 3 to 17 identified as having an intellectual or developmental disability increased more than 21% from 2014 to 2016 (Zablotsky, Black, & Blumberg, 2017) and roughly 6.6 million children ages 3 to 21 received special education services during the 2014–2015 academic year (U. S. Department of Education, 2017). Such disabilities occur at critical points during development and can have lifelong implications for intellectual, physical, social-emotional, behavioral and communicative functioning (American Psychiatric Association [APA], 2013). There is no single factor responsible for the increase; however, it is likely related to improvement in early identification, universal screening, and increased awareness (Blumberg et al., 2013). Due to the increase in prevalence and the potential long-term implications regarding outcomes, early identification of young children with disabilities and implementation of evidence-based early intervention services are imperative. Educators are well positioned to facilitate the early identification process and provide direct services; however, only a small proportion of kindergarten through 12th grade teachers report feeling well prepared to meet the needs of students with disabilities (U.S. Department of Education, 1999), and less than half of educators reported receiving professional development training to teach children with disabilities (Wei, Darling-Hammond, & Adamson, 2010). Few studies have examined how prepared educators feel working with children with disabilities ages birth through grade 3 (i.e., early childhood educators). Furthermore, no known studies have looked at factors that relate to educators' feelings of preparedness or how feelings of preparedness relate to relevant outcomes. As a result, the goal of the present study was to better understand early childhood educators' feelings of preparedness for working with children by specifically exploring the direct and indirect associations between educational experiences, feelings of preparedness for working with children with disabilities, and assessment practices.

Early Identification, Intervention, and Inclusion

Much research exists to support the idea that early identification and implementation of evidence-based early intervention lead to greater impact on treatment gains (e.g., Eldevik et al., 2009; Guralnick, 2011). The first 24 months of a child's development is marked by an explosion of growth in cognitive, language, and social abilities (Bradshaw, Steiner, Gengoux, & Koegel, 2015), characterized by accelerated brain growth and neural connectivity (Wolff et al., 2012). Early identification and intervention in this period are critical and may prevent the development of additional difficulties including the prevention of further decline in intellectual development (Guralnick, 2005) and academic achievement (Pears, Kim, Fisher, & Yorger, 2016), as well as the prevention of behavior difficulties that are highly associated with children with intellectual and developmental disabilities (De Ruiter, Dekker, Verhulst, & Koot, 2007; McIntyre & Abbeduto, 2008). These outcomes provide clear evidence that identification and intervention should occur as early as possible. With approximately 11 million children under the age of five experiencing non-parental care and education in the United States (Laughlin, 2013), early childhood educators are well positioned to identify children who are in need of early intervention services, and, at times, directly deliver those services.

Inclusion in early childhood programs refers to young children with disabilities participating in early childhood settings, together with same-aged peers, while being held to high expectations with the intentional promotion of participation in all activities, facilitated by individualized accommodations and use of evidence-based interventions (U.S. Department of Education, 2015). In response to increasing empirical support for inclusion, legislative demands such as the Individuals with Disabilities Education Act of 2004, and various policy requirements (e.g., state policies, Head Start), an increasing number of children with disabilities are educated in inclusive early childhood settings rather than specialized programs.

The practice of inclusion benefits the individual learner with identified disabilities, other learners in the classroom who do not have identified disabilities, and society as a whole (Odom et al., 2004). Young children with disabilities, even those with the highest needs, can make

significant progress in inclusive early childhood settings (Green, Terry, & Gallagher, 2014; Nahmias, Kase, & Mandell, 2014). In fact, Nahmias et al. (2014) found that children with disabilities who received services in inclusive settings experienced greater growth in cognitive and social development compared to children with disabilities in specialized or exclusive settings. Given the mandate for providing education within the least restrictive environment and the importance of early identification and intervention, early childhood educators must feel prepared to teach all young learners.

Teacher Preparation Programs and Competencies

Teacher preparation programs seek to prepare educators with the skills necessary to effectively teach learners. To ensure adequate preparation, many programs seek accreditation that assumes graduates meet specific standards (e.g., Council for the Accreditation of Educator Preparation, the National Association for the Education of the Young Child, NAEYC). Common among accrediting organizations is the emphasis on preparation for facilitating the learning and development of *all* learners through indicators of teaching effectiveness (e.g., observation instruments, student surveys, growth measures, and outcomes assessments). Furthermore, the Council for Exceptional Children's (CEC) Division of Early Childhood (DEC) identifies Recommended Practices for effective ways in promoting the development of young children who are at-risk for developmental delays and/or disabilities (Division for Early Childhood, 2014).

Despite legislative imperative for inclusion and accreditation standards that specifically address the need for teacher preparation programs to prepare pre-service teachers to work with children of all ability levels, research demonstrates that early childhood teacher preparation programs focus very little on coursework devoted to teaching young children with disabilities for both associate and bachelor degree programs (e.g., Chang, Early, & Winton, 2005; Early & Winton, 2001). In their analysis of 226 undergraduate early childhood programs, Ray, Bowman, and Robbins (2006) found content related to teaching children with disabilities in only 12.8% of the total semester hour requirements. Furthermore, early childhood educators have expressed a need for more training on working with children

with disabilities (e.g., Durden, Mincemoyer, Lodl, & Gerdes, 2013; Wei et al., 2010). More recently, Kwon, Hong, and Jeon (2017) found teachers who received more specialized training in early childhood education used more inclusive practices within the classroom. Authors argue for the need for more training opportunities for working with children with disabilities (Kwon et al., 2017). Given this disconnect between actual educator preparation and the standards and recommendations for practice offered by professional associations, early childhood educators may not feel prepared to teach young learners with disabilities.

Indeed, prior research conducted among educators Kindergarten through 12th grade indicated that while 71% of teachers taught students with disabilities, only 17% felt very well prepared to meet the needs of these students (U.S. Department of Education, National Center for Education Statistics, 1999). Few studies have examined educators' feelings of preparedness and no known studies have focused on the early childhood population, which is a goal of the present study. Importantly, research has also not considered the factors that relate to teachers' feelings of preparedness. These factors are important to consider, as they are highly relevant to strengthening early childhood services, particularly for young children with disabilities. Especially important to consider are the educational experiences of early childhood educators, including degree and major of study, which have implications for teacher preparation.

Assessment Practices

When examining early childhood educators' feelings of preparedness for working with children with disabilities, it is important to consider not only factors that relate to preparedness, but also the relation among feelings of preparedness and relevant classroom practices (e.g., instructional practices, assessment practices). Assessment has received considerable attention in the last decade and is particularly relevant to early childhood. Assessment is an integral component in education and is used to measure students' progress in learning over time and to evaluate child development, instructional practices, and the learning environment. It is critical for all young learners but is particularly important for young learners with disabilities (e.g.,

Koegel, Robinson, & Koegel, 2009). Assessment is used as part of the process for early identification, as well as to measure how students with disabilities respond to intervention and instruction. Modifications to instruction and service delivery can be made based upon individual student need. Further, assessments can inform teaching and program improvement. If measures are selected appropriately, matched to their purpose, are well designed, and implemented effectively, they can make critical contributions to the learning outcomes of children (Institute of Medicine, 2015).

While high stakes testing and current assessment practices have drawn criticism in recent years (e.g., von der Embse, Schoemann, Kilgus, Wicoff, & Bowlder, 2017), experts recognize the importance and significant influence assessment has on education (e.g., Institute of Medicine (IOM) and National Research Council (NRC), 2015; Kaminski, Abbott, Bravo Aguayo, Latimer, & Good, 2014). In fact, the Committee on the Science of Children Birth through 8 calls for the development of a new paradigm for evaluation and assessment of professional practice for early childhood educators (Institute of Medicine (IOM) and National Research Council (NRC), 2015). The Committee calls for implementation of NAEYC characteristics for appropriate child assessment practices including using a variety of assessment methods (e.g., observations, checklists, rating scales), individualizing instruction based on strengths/needs, using assessment methods to design goals, using assessment to monitor progress toward goals, using assessment to improve teaching strategies, integrating assessment into the daily activities, providing families information regarding developmental progress daily, and using assessments to identify children with disabilities. While appropriate assessment practices are identified, it is unclear how educators are implementing these skills in practice.

Research has shown the relation among educator perceptions regarding high stakes testing and stress (von der Embse et al., 2017), student motivation (e.g., Reese, Gordon, & Price, 2004), and accuracy of measuring student learning (Reese et al., 2004), research has not yet examined how educators' feelings of preparedness for working with children with disabilities relate to how they perceive the quality of their assessment practices and to how they rate the importance of assessment.

Current Study

Inclusive early childhood environments have the potential to support learners with diverse learning needs, including children with disabilities. However, if educators do not feel prepared to teach children with disabilities, this potential may not be fully realized. Past work suggests that K-12 teachers do not consistently feel prepared to work with children with disabilities; however, no known studies have focused on the birth to grade 3 early childhood workforce. The current study seeks to fill this gap by exploring the relations among early childhood educators' educational experiences, feelings of preparedness for working with children with disabilities and their assessment practices, including the importance of assessment as well as the quality of assessment practices in their classrooms. We expect that as educators' educational attainment increases and as coursework is more focused (e.g., early childhood education, early childhood special education), teachers' feelings of preparedness for working with disabilities will also increase. Furthermore, we hypothesize that teachers who feel more prepared to work with children with disabilities will rate assessment as more important and will rate the quality of assessment in their classrooms higher than those who perceive themselves as less prepared to work with children with disabilities. To further understand these associations we test the extent to which feelings of preparedness for working with children with disabilities mediates the association between educational experiences and assessment practices.

Method

Participants

The present study utilized data from a statewide survey of early childhood educators in a Midwestern state. The state was divided into six geographic regions and stratified random samples were derived for each region. Licensed home-based and center-based providers were identified from state licensing lists; elementary schools with and without Pre-K were identified from the state's Department of Education. Prior to data collection, permission to distribute surveys was granted

by individual districts; all but one district agreed to participate. Half of all home-based, center-based, and elementary schools without Pre-K were randomly sampled; all schools with Pre-K were sampled. Data collection occurred from 2015 to 2016.

Cover letters, surveys, pre-paid return envelopes, and small cash incentives were mailed to all sampled programs. A few months later, reminder phone calls were made to all non-respondents with available telephone numbers and replacement survey packets were sent. Surveys were created to gather information about programs, classrooms, and individuals. In centers and elementary schools, directors or principals completed a survey and were asked to randomly distribute one survey to a lead teacher in each age group or grade level represented in the program or school (through third grade). Home-based providers received a combined program and teacher survey. Survey items were largely based on previous early childhood studies. Surveys across settings (i.e., home-based, center-based, schools) were similar yet distinct.

The sample for the present study consists of 1,296 educators within 757 schools or centers. Forty-four percent were K-3 educators, 26.2% were center-based educators, 19.8% were Pre-K educators in schools, and 9.3% were home-based. Consistent with the previous percentage breakdown, 47% of educators reported working with children grades K-3, 35.6% reported working with preschool children, and 17.4% reported working with infants and toddlers. Important to note, the present study does not consider educators who reported working with multiple age group categories, as the goal of the study was to understand educators' feelings of preparedness for working with the age group they primarily serve, which is described in more detail in the measures section. Nearly all educators identified as white (95.5%) and female (97.6%), with an average age of 40.41 years ($SD = 12.43$, range = 19–75). On average, educators had 14.84 years of teaching experience ($SD = 10.22$, range = 0–45). Most educators had bachelor's degrees (47.1%) or graduate degrees (33.3%), while a small portion had high School diplomas/GEDs (11.6%) or associate's degrees (8.0%).

Measures

The measures utilized in the present study were collected from teacher surveys. Descriptive statistics for all measures are presented in **Table 1**.

Table 1. Descriptive statistics.

Variable	N	Range	Mean (SD)
Teachers Feelings of Preparation			
Children with disabilities	1213	1–4	2.68 (.92)
Typically developing children	1259	1–4	3.62 (.62)
Education			
Educational attainment	1224	1–3	1.14 (.71)
Education related major	1119	0–1	92%
Importance of Assessment	1281	1–4	3.07 (.76)
Self-Rating of Assessment	1250	1–7	5.46 (1.11)
Covariates			
Years of Experience	1268	0–45	14.84 (10.22)
Depressive Symptoms	1231	0–24	4.47 (3.58)
Adult-Centered Beliefs	1217	0–48	22.85 (8.0)
Age Group Served			
Infants and toddlers	1296	0–1	17%
Pre-K	1296	0–1	36%
K-3	1296	0–1	47%

Age Group Served

Educators reported the age group they work with most frequently: Infants and Toddlers (0–3 years), Preschool (3–5 years), Kindergarten to Third Grade (K–3), and multiple age groups. As previously mentioned, teachers working with multiple age groups were excluded from the present study.

Educators’ feelings of preparedness. Educators were asked to report how prepared they felt to work with certain age groups of children, ability levels and families when they started their careers. For the purposes of this study, we utilized teachers’ responses to “children/students developing typically” and “children with disabilities.” For each, teachers reported their level of preparation on a four point Likert-type scale ranging from 1 (*not prepared*) to 4 (*well prepared*) for various age groups: Birth to 3 years, Preschool, and K to 3rd Grade. For this study, the age group educators report serving was used to create two new variables that represent educators’ feelings of preparedness to work with (1) typically developing children and (2) children with disabilities for the age group they currently serve. In other words, if educators reported working with third graders, the variables represented

educators' feelings of preparedness for working with typically developing children and children with disabilities in grades K-3.

Educational Attainment

This variable represents educators' highest level of education at the time of data collection. Teachers were asked to list their educational experiences, which was then categorized into 3 degree categories (1 = less than a bachelor's degree, 2 = bachelor's degree, and 3 = graduate degree).

Major

In addition, teachers were asked to indicate their major in their highest degree. Teachers could choose from the following options: early childhood education, child development, psychology, education (elementary education was included in this category), special education, social work, other (open-ended), and not applicable. These options were then consolidated into a variable indicating whether or not the teachers' highest degree was related to early childhood education, which included education (elementary, early childhood, or special) as well as child development, speech language pathology, social work, and psychology. A dummy-coded indicator variable was created such that 1 represents an education-related major.

Assessment Practices

Teachers were asked two items related to assessment. First, teachers rated the importance of assessment, which was reported on a Likert scale ranging from 1 (*not important*) to 4 (*very important*). Second, teachers self-rated the assessment practices in their own classroom or program, which was reported on a Likert scale ranging from 1 (*inadequate*) to 7 (*excellent*).

Covariates. Several covariates were included in the models including age group served, years of experience, the ratio of children in the teacher's classroom with an individualized education program (IEP) or individualized family support plan (IFSP), depressive symptoms, and adult-centered beliefs, to control for possible associations with

feelings of preparation and perceptions of assessment. Teachers reported, in years, the total amount of time they have spent working with children under the age of eight years. Teachers also reported the total number of children in their classroom, as well as the total number of children in their classroom with an IEP and/or IFSP. Those two values were used to calculate the ratio of students in the teachers' classrooms with IEPs and/or IFSPs. Income-to-needs ratios were calculated by considering the teachers' age and household size, and the poverty thresholds for 2015. The Center for Epidemiologic Studies Depression Scale-10 (CES-D 10; Radloff, 1977; $\alpha = .70$) was used to evaluate depressive symptoms. The CES-D 10 is a 10-item survey that asks respondents to indicate how often they experienced specific symptoms of depression within the last week. Respondents responded to a 4 point Likert-type scale ranging from 0 (*rarely or none*) to 3 (*all the time*). Scores were summed. Teachers' adult-centered views were assessed using the Parent Modernity Scale (Schaefer & Edgerton, 1985; $\alpha = .78$). The Parent Modernity Scale measures the extent to which teachers hold more adult-centered vs child-centered views of children. Teachers indicated how strongly they agree with various statements using a five point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were summed, with higher scores indicating more traditional views.

Analytic Plan

First, frequencies were examined to determine how prepared early childhood educators felt to work with typically developing children and children with disabilities. Next, a path analysis was conducted to simultaneously test the direct paths from teachers' educational experiences (attainment and major) to teachers' feelings of preparation for working with children with disabilities and from teachers' feelings of preparation for working with children with disabilities to teachers' perceived importance of assessment and teachers' self-rating of assessment practices, as well as the indirect paths by way of the mediator (teachers' feelings of preparation for working with children with disabilities). The model accounted for the following covariates: the age group the teacher primarily works with, years of experience, ratio of children with IEPs and/or IFSPs, depressive symptoms,

and beliefs about children. The model was run in Mplus Version 7.4 (Muthén & Muthén, 2015). The intraclass correlation coefficient was .03 for teachers' feelings of preparation for working with children with disabilities, .09 for perceived importance of assessment, and .20 for self-rating of assessment. In all models, schools/centers were entered as clusters to remove the random variability associated with teachers nested within schools or centers.

Missing Data

Variables with missing data included preparation for working with typically developing children (3%), preparation for working with children with disabilities (6%), perceived importance of assessment (1%), self-rating of assessment (4%), major (14%), and educational attainment (6%). All models were run using full information maximum likelihood (FIML) which assumes all data are missing at random (MAR). Although there is no test for MAR, tests were conducted to determine whether auxiliary variables not included in the original models were related to missingness (Enders, 2010). Specifically, logistic regressions (0 = present; 1 = missing) were run using dummy variables that were created for all study variables with more than 5% missing data. Variables already in the model and demographic variables theoretically related to missingness were included as predictors in the logistic regressions. Auxiliary variables that emerged as significant predictors of missingness (e.g., stress, hourly wage, and race) were included as controls in the imputation model so that residual patterns of missingness were more likely to be random (Acock, 2012).

Results

Bivariate correlation coefficients are presented in **Table 2**. Educators' feelings of preparation for working with children with disabilities was moderately correlated with educators' feelings of preparation for working with typically developing children. Several variables were significantly correlated with educators' feelings of preparedness for working with disabilities, including education-related major, educational attainment, age group served, as well as perceived importance

Table 2. Bivariate correlations.

Variable	1	2	3	4	5
1 Feelings of Preparation: Children with Disabilities	—				
2 Feelings of Preparation: Typically Developing	.38**	—			
3 Educational Attainment	.17**	.07*	—		
4 Education Related Major	.20**	.05	.32**	—	
5 Importance of Assessment	.08*	.08*	-.04	.01	—
6 Self-Rating of Assessment	.18**	.13**	.19**	.12**	.34**

** = $p < .001$; * = $p < .05$

of assessment and self-rating of assessment. Importance of assessment and self-rating of assessment were slightly, but not highly correlated, suggesting they are similar yet distinct outcomes of interest.

In the present study, 19.6% of early childhood educators felt well prepared to work with children with disabilities. In contrast, 68.5% felt well prepared to work with typically developing children. **Table 3** and **Figure 1** present the standardized coefficients for the path analysis estimating direct and indirect associations between education, teachers' feelings of preparation for working with children with disabilities, and assessment practices. After controlling for covariates, educational attainment and major were directly associated with educators' feelings of preparedness for working with children with disabilities, such that educators with higher educational attainment and those who majored in education-related fields felt more prepared to teach children with disabilities. The model accounted for 9.0% of the variance in educators' feelings of preparation for working with children with disabilities.

Next, after controlling for various aspects of educators' preparation, experience, beliefs, and wellbeing, educators' feelings of preparedness for working with children with disabilities was directly associated with educators' assessment practices on two indicators. Specifically, educators who felt more prepared to work with children with disabilities regarded assessment as more important and rated their own assessment practices more favorably. The model accounted for 11.0% of the variance in educators' self-rating of assessment practices and 3.4% of the variance in educators' rating of the importance of assessment.

Table 3. Standardized coefficients from path analysis estimating direct and indirect associations between education, teachers' feelings of preparation for working with children with disabilities, and assessment practices.

Predictor	Mediator	Outcome	β (SE)	p-value
Direct associations				
Educational attainment	→ Teachers' feelings of preparation		.09 (.04)	.02*
Education related major	→ Teachers' feelings of preparation		.16 (.04)	<.001*
	Teachers' feelings of preparation	→ Self-rating of assessment practices	.14 (.03)	<.001*
	Teachers' feelings of preparation	→ Importance of assessment	.09 (.03)	.01*
Educational attainment	→	→ Self-rating of assessment practices	.16 (.04)	<.001*
Education related major	→	→ Self-rating of assessment practices	.06 (.04)	.11
Educational attainment		→ Importance of assessment	-.01 (.04)	.77
Education related major		→ Importance of assessment	.03 (.04)	.38
Indirect associations				
Educational attainment	→ Teachers' feelings of preparation	→ Self-rating of assessment practices	.01 (.01)	.04*
Education related major	→ Teachers' feelings of preparation	→ Self-rating of assessment practices	.02 (.01)	.001*
Educational attainment	→ Teachers' feelings of preparation	→ Importance of assessment	.01 (.01)	.08
Education related major	→ Teachers' feelings of preparation	→ Importance of assessment	.01 (.01)	.02*

* p < .05

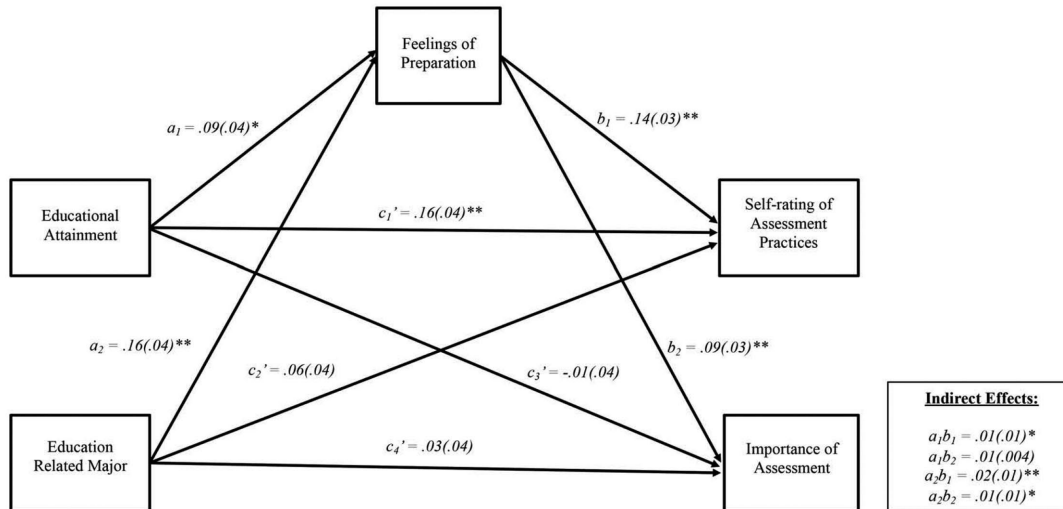


Figure 1. The results of the path analysis. Standardized coefficients are reported. The omitted covariates include age group served, years of experience, the ratio of children in the teacher's class with an IEP/IFSP, depressive symptoms, and adult-centered beliefs. $^{**} = p < .01$; $^* = p < .05$.

Three of the four indirect associations were also significant. Teachers with higher educational attainment felt more prepared to work with children with disabilities, which in turn, was associated with higher self-rated assessment practices. Similarly, teachers who majored in education-related fields felt more prepared to work with children with disabilities, which in turn, was associated with higher self-rated assessment practices, as well as higher ratings of the importance of assessment. Teachers' feelings of preparation for working with children with disabilities did not mediate the association between educational attainment and ratings of the importance of assessment.

Discussion

In the present study, we sought to describe early childhood educators' feelings of preparedness for working with children with disabilities, and identify the direct and indirect associations among educators' educational experiences, feelings of preparedness, and assessment practices. Results indicate that noticeably fewer educators felt well prepared to teach young children with disabilities compared to those educators who felt well prepared to teach children who are typically

developing. Furthermore, our findings identify relations among educational experiences and feelings of preparedness, as well as among feelings of preparedness and perceptions of assessment. Feelings of preparedness mediated nearly all of the associations between educational experiences and assessment practices. These findings are discussed in more detail below.

Feelings of Preparedness

Consistent with previous work that assessed educator feelings of preparedness for working with children with disabilities among kindergarten through 12th grade educators (National Center for Education Statistics, 1999), the present study found a similar gap among birth through 3rd grade educators. The current study found that a majority of early childhood educators (i.e., 68.5%) endorsed feeling well prepared to teach typically developing children, while a minority of early childhood educators (i.e., 19.6%) endorsed feeling well prepared to teach children with disabilities. These are important findings as young children with disabilities are increasingly being served in inclusive early childhood settings and benefit from inclusive services (Green et al., 2014). It would therefore seem imperative for educators to feel well prepared to teach all children, including children with disabilities. Furthermore, while accrediting bodies and professional organizations promote educator preparation for teaching all young learners, our findings suggest that this is not the current reality. These findings have important implications for educator preparation programs, as programs seek to meet accreditation requirements and train early childhood educators to meet the needs of all young learners.

Factors that Relate to Educators' Feelings of Preparedness

Importantly, the current study sought to identify factors, namely, educational experiences (e.g., educational attainment and major) that relate to educators' feelings of preparedness to teach children with disabilities. Findings indicate that as educational attainment increased, feelings of preparedness for working with children with disabilities also increased. Thus, teachers with more education felt more prepared to teach children with disabilities than teachers with less education. In

addition, teachers who majored in education-related fields felt more prepared to teach children with disabilities than those who majored in unrelated fields.

Interestingly, major accounted for more of the variance in teachers' feelings of preparedness than educational attainment. This suggests that content-specific coursework may be especially important to educators' feeling prepared to work with children with disabilities. This is consistent with and extends previous work that supports a relationship between educators' preparedness for inclusive education and whether educators had university courses in inclusive education (Zagona, Kurth, & MacFarland, 2017). Furthermore, previous research demonstrated an increase in educator attitudes, willingness, and comfort levels, as well as application of instructional practices following the addition of two special education courses (Rakap, Cig, & Parlak-Rakap, 2017). Thus, if early childhood educator training programs seek to increase educators' feelings of preparedness for working with young children with disabilities and the services young children with disabilities receive, programs should focus on increasing content-specific coursework in that domain.

Relation among Feelings of Preparedness and Assessment Practices

This is the first known study to examine the relations among educator feelings of preparedness and assessment practices. Assessment is an integral component used when working with all learners (Herman, Osmondson, Dai, Ringstaff, & Timms, 2015) and particularly important to monitor the growth and learning of young children with disabilities (Koegel et al., 2009). However, as schools implemented accountability policies and turned toward high-stakes performance tests to evaluate student progress and teacher effectiveness, assessment practices received criticism (e.g., Putwain, 2008; Segool, Carlson, Goforth, von der Embse, & Barterian, 2013). Findings of the current study indicate that early childhood educators who endorsed feeling more prepared to work with children with disabilities regarded assessment as more important and rated their own assessment practices more favorably. Thus, while previous research has identified a link between assessment practices and educator stress (e.g., von der Embse et al., 2017),

the findings of the current study suggest that educators who feel more prepared to work with children with disabilities may be better able to see the utility of assessment. Interestingly, educational major was not directly associated with assessment practices; however, was indirectly associated with assessment practices via feelings of preparedness. Mediation analyses in the present study thus suggest that as educators become more prepared to work with children with disabilities through content-specific coursework, they may view assessment more favorably and implement appropriate practices within their classrooms. These findings further support the need for teacher preparation programs to include content-specific coursework for working with children with disabilities, as it not only influences feelings of preparedness, but also influences assessment practices within the classroom.

These are important findings and have implications for the type of services that young children with disabilities receive in an inclusive setting. If educators regard assessment as important and endorse using assessment in their classrooms, it is increasingly likely that the progress of young children with disabilities will be monitored and that programming will be modified based on data. Interestingly, it is unclear whether feeling better prepared to teach children with disabilities influences a more positive perception of assessment; *or* whether the positive perception of assessment influences teachers to feel more prepared to teach children with disabilities. Future research could consider a more detailed analysis of this relation.

Limitations and Future Directions

There are several limitations worth acknowledging. First, the study relied on self-reported measures of teachers' feelings of preparedness and assessment practices, which may be biased. Although there is reason to believe teachers' feelings of preparedness is important, presently, it is unclear how teachers' feelings of preparedness or assessment practices relate to teachers' demonstrated performance in the classroom. Future work should examine the associations between teachers' self-reported preparedness and observed practice. Second, this study relied on teacher report of feelings of preparedness for working with children with disabilities at the time they started teaching rather than current feelings of preparedness. Third, this study is

correlational; no causal claims can be made. Fourth, it should be noted that there is likely variability among how teachers view the term “assessment,” as the term was not defined specifically in the survey. Furthermore, we acknowledge that there is significant variability amongst young children within and between different disability groups. The current study captured teacher preparedness for working with children with disabilities broadly; however, did not capture teacher feelings of preparedness for serving children with within specific disability groups or types of disabilities. Furthermore, the current study did not assess specific factors relating to *why* educators felt less prepared to teach children with disabilities. Future research should consider how educator feelings of preparedness differ within and between disability groups, as well as what factors contribute to educators feeling less prepared to teach children with disabilities (e.g., need for additional behavioral supports, lack of pre-service training, lack of professional development on the topic). Fifth, in the present study, it was important to isolate teachers’ feelings of preparedness in working with particular age groups of children. As such, many licensed home-based providers, who tended to work with children from a variety of age groups, were not included in the present inquiry, thus limiting generalizability. Further limiting generalizability is the lack of racial and ethnic diversity in the current sample.

The present study indicated that teachers who majored in education-related fields felt more prepared. However, little is known about the specific coursework and practical experiences teachers had that may have led them to feel more prepared. In fact, only 4.8% of the variation in teachers’ feelings of preparedness was explained, suggesting that much of this variation was not captured in the present study. It would be beneficial if future work took a more nuanced view at examining the elements of training programs that are most proximal to teachers feeling prepared. Similarly, it would be helpful for future work to explore what teachers feel prepared and not prepared to do. For instance, future studies could utilize qualitative methods, such as interviews or observational data, to identify the specific components of working with children with disabilities for which educators feel ill prepared. Such information would be beneficial to enhance training and professional development to ensure all educators feel well prepared to work with all learners within their classrooms.

Conclusion

Understanding characteristics that enhance learning experiences for children is imperative and particularly important in early childhood inclusive education. Early identification and intervention have important implications for outcomes of early learners across the lifespan. Given the significant number of children who receive out of home care and education, early childhood educators are well positioned to facilitate the early identification and intervention process. However, our findings indicate that early childhood educators endorse feeling much less prepared to teach children with disabilities in comparison to children who are typically developing. Furthermore, findings indicate a relation among educator feelings of preparedness and educational experiences (major and level of attainment). Perhaps not surprising is that major emerged as more significant than level of educational attainment, which indicates content-specific coursework better prepares educators for working with children with disabilities. Thus to bolster educator feelings of preparedness, it is essential for training programs to include coursework on inclusive education and/or working with children with disabilities as part of the course sequence (e.g., early childhood development, working within interdisciplinary teams, supporting behavioral needs in the early childhood classroom). Finally, findings emerged concerning the importance of assessment and utility of assessment practices, with higher ratings of importance and utility among educators who feel more prepared to work with children with disabilities. Thus as educators gain more education, they become more prepared to teach children with disabilities, and it is increasingly likely that they will be using assessment to monitor progress. Future research can use this knowledge to improve early childhood educator training programs to include content related to inclusive education, to pursue future work assessing content-specific variables, and ultimately improve educational experiences and early intervention services for young children with disabilities.

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