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**ASSESSMENT VARIABILITY AMONG STATES IN DETERMINING PART C
ELIGIBILITY CRITERIA**

by

April Noel Siktar

A Thesis

Submitted to the
Department of Educational Services and Leadership
College of Education

In partial fulfillment of the requirement

For the degree of

Master of Arts in School Psychology

at

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Thesis Chair: Terri Allen, PhD

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Dedication

I would like to dedicate this manuscript to my parents, Vince and Dyanne Siktar, and to Drew Staman and his family.

Acknowledgments

I would like to express my gratitude and appreciation to Dr. Terri Allen and Dr. Roberta Dihoff. Through this process, they have provided me with assurance, confidence, guidance, and support. I have gained a plethora of knowledge that will not only guide me through my graduate school endeavors but also in my professional realm.

I would like to thank my family and friends for their support throughout this experience.

Abstract

April Siktar

ASSESSMENT VARIABILITY AMONG STATES IN DETERMINING PART C ELIGIBILITY CRITERIA

2014-2015

Terri Allen, Ph.D.

Master of Arts in School Psychology

Early intervention (EI), known as Part C, is an integral component of providing young children with individualized attention that enriches their development. The EI services are provided to children zero to two years old that are deemed eligible by specific diagnosis, clinical opinion, or based on assessment scores. States have flexibility on which assessments should be used and the qualifications of the examiner. The variations among states and districts can have implications on who is eligible to receive services throughout the country. The purpose of this study is to investigate the assessments and examiner's qualification in each state. The ongoing data that will be collected will be interpreted to answer the following questions: Does the type of assessment used to determine children's eligibility for EI services in each state correlate to the projected number of referred children? Does the difference in the examiner's qualifications have an impact on the number of children in EI? The data suggests that there needs to be further examination to answer these questions. The states' ambiguity of assessments and evaluator qualifications raises concerns on the reliability and validity on the evaluation process.

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Chapter 1

Introduction

Early intervention has become an integral component of providing young children with individualized attention that enriches their development. Part C was renamed when the Education for All Handicapped Children Act was amended and became the Individuals with Disabilities Education Act (IDEA) (Hallahan et al., 2012, p. 16). Part C was designed expanding upon special education within the school system. The early intervention services are provided to children zero to three years old that are deemed eligible by specific diagnosis, clinical opinion, or based on assessment scores. States have varied requirements which assessments should be used and the qualifications of the examiner.

The variations among states and districts can have implications on who is eligible to receive services throughout the country. A family should not have to worry if their child will may or may not receive services based on where they reside and the quality of screening that the district or state provides. The purpose of this study is to investigate and compare the assessments and qualifications of the examiners in each state. The data will be interpreted to answer the following questions:

1. Is there a relationship between the assessment tools and the number of children found eligible through the evaluation process?
2. Is there a relationship between the examiner's qualifications and the number of children found eligible through the evaluation process?

The following operational definitions were used in this study:

Reliability is if the scores or results are consistent and stable. The results will not vary regardless of when and who administers the test (Creswell, 2004, p.162).

Validity is data/results that have a meaningful, significant and purposeful implication (Creswell, 2004).

Construct validity applies to the concept/central idea that the assessment is intending to measure during the evaluation (Kranzler & Floyd, 2013).

Predictive validity refers to the positive correlation between the scores and how it influences the future outcomes (Kranzler & Floyd, 2013).

Internal consistency is the degree of error on how efficient the components on the test measure the same construct (Newborg, 2005).

Norm-referenced assessment is designed to compare an individual's performance to standard scores and percentile ranks that correspond to a group's performance based on a normal distribution (such as a bell shaped curve) (Andersson, 2004).

Criterion-referenced assessment is defined by particular characteristics or attributes that the individual is being evaluated on (Hosp, Hosp & Howell, 2006).

Within this study an assumption will be the accuracy of the states' reporting on assessments, evaluators, and the number of referrals. Another assumption is that the referrals can be made with an informed opinion based on observation of the child.

The study will have limitations surrounded by the confidentiality of the families and children who are referred and are receiving services in each state. There will also be a limitation in the accuracy of the reports.

In the upcoming chapters, this study will explore past literature on the variations of assessments within the early intervention system, the reliability and validity of both

types, and recommendations for states' to use the ideal assessment and evaluator.

Chapter 3 will highlight the type of participants and materials used, the design and procedure used with the data. Chapter 4 will report on the results obtained for this study, and Chapter 5 will discuss the findings and implications.

Chapter 2

Literature Review

History of Early Intervention

Prior to early intervention services becoming mandated within legislation, a federal law came into existence in 1975 known as Education for All Handicapped Children Act or Public Law (PL) 94-142 (Hallahan, Kauffman & Pullen, 2012, p. 16). In 1986, the Public Law 99-457 called Early Intervention Program for Infants and Toddlers with Disabilities (Part H) was passed as an amendment to the Education for All Handicapped Children Act. PL 99-457 required children with disabilities received preschool services and had similar rights and protection written in Section 619 (now known as Part B of IDEA) (Bruder, 2010, p. 340; Spiker, Hebbeler, Wagner, Cameto & McKenna, 2000, p. 195). Before this amendment in 1986, a combination of public and private agencies served the early intervention population. The specific details are ambiguous regarding “how many agencies, which agencies, whom they served, and the roles they played varied from state to state” (Spiker et al., 2000, p. 195). In 1990, the Education for All Handicapped Children Act was amended and renamed the Individuals with Disabilities Education Act (IDEA) (Hallahan et al., 2012, p. 16). With this evolution, PL 99-457 became known as Part C of the IDEA.

Part C mandates that states need to appoint a lead agency that can “administer the program, develop a definition for developmental delay, and decide whether they would serve children who are at risk and their families (Spiker et al., 2000, p. 195). In order to create fluidity within states, they were required to establish an Interagency Coordinating Council (ICC), which ensures and provides service coordination for children receiving

early intervention services. Once an ICC was established for a state, the states had decisions addressing delivery options, the criteria/assessments used to evaluate a child and determine if they are eligible to receive services and how the states would manage service coordination (Bruder, 2010, p.340; Spiker et al., 2000, p. 195). Currently, states have to follow legislation requirements pertaining to essential characteristics in service delivery. However, the methods and approaches used to implement early intervention vary throughout the country and in states (Bruder, 2010, p. 340).

What is the Early Intervention Process?

According to Wrightslaw (2014), early intervention's purpose is to provide young children with services, support and education. The population of children served in early intervention includes children "who are deemed to have an established condition, those who are evaluated and deemed to have a diagnosed physical or mental condition [...], an existing delay or a child who is at risk of developing a delay or special need" (Wrightslaw, 2014, What is Early Intervention section, para 1). There are five developmental areas (cognitive, adaptive, social or emotional, communication and physical development) that the early intervention services address and identify children's needs/deficits in those areas (Wrightslaw, 2014, What is Early Intervention section, para 1).

IDEA implemented a component of the legislation known as Child Find, which "requires states to identify, locate, and evaluate all children with disabilities, aged birth to 21, who are in need of early intervention or special education services" (Wrightslaw, 2014, What is Early Intervention, para 4). According to Giordano (2008), there are seven elements that the Child Find System is comprised of: "1) definition of the target

population, 2) public awareness, 3) referral and intake, 4) screening and identification, 5) eligibility determination, 6) tracking, and 7) interagency coordination” (p.7). Wrightslaw (2014) explains that evaluations and assessments occur at no cost to the families and should be conducted by qualified individuals. After the assessments are completed, the team will decide whether or not the child is eligible for services. It is important to note that eligibility for early intervention services vary by each state.

Assessments and Evaluations to Determine Eligibility

According to Andersson (2004), a critical piece in the evaluation process is the administrating instruments such as norm-referenced and criterion-referenced. However, there is a variation on which specific instruments are used by states due to the preferences of the local agencies, team members, and the accessibility of the instruments (p. 55). Explanations of both norm-referenced and criterion referenced assessments are addressed below.

Norm-referenced assessments. Norm-referenced assessments are also referred to as conventional assessments or standardized assessments. Andersson (2004) mentions that norm-referenced assessments are designed to compare a child’s performance to standard scores and percentile ranks that correspond to a group’s performance based on a normal distribution (such as a bell shaped curve) (p.56). A child’s standard deviation represents how far the child is from the normative sample. Norm-referenced assessments not only provide relative standings but also developmental age (DA) scores. The concept of norm-referenced assessments is that the assessment will be presented the same way with the exact materials to every child participating in the assessment (Andersson, 2004, p.56). Standardization and norm samples are synonymous in representing the “same

directions, sample items, practice trials, feedback, and scoring guidelines for everyone completing a test” (Kranzler and Floyd, 2013, p. 64). Kranzler and Floyd (2013) state that accurate and useful results require standardization; without standardization, precise norms would not be obtainable (p. 64). Examiners are restricted to use only the materials that are provided for each assessment, and they are not allowed to deviate from the materials to ensure standardization is maintained. Norm-referenced assessments are crucial in collecting objective quantitative data that relates to the development of the child (Visser, Ruiter, van der Meulen, Ruijsenaars, and Timmerman, 2012, p. 104-105).

The standardized materials and questions used in norm-referenced assessments contribute to higher levels of reliability. The closer the reliability coefficients are to 1.00, the higher level of reliability and acceptable amounts of measurement error. For assessments that are used to determine eligibility and intelligence tests, reliability should be held at a higher standard (Kranzler and Floyd, 2013, p. 70). For example, the Battelle Developmental Inventory 2nd Edition’s (BDI-2) manual describes that reliability correlates to how stable the test scores are across time, examiners and settings. The internal-consistency reliability coefficients, calculated by the sum of multiple tests, for the domain developmental quotient (DQ) scores varied between .90-.96. The consistency was seen across all age groups, especially with the total score reliabilities ranging from .98-.99. The Totally Screening Score had an internal-consistency reliability of .91, and the Total DQ had an average of .99 (Newborg, 2005, p. 109, 111). The inter-rater reliability for the each of the pair of examiners for the three separate scoring (0,1, or 2) was .97 or .99. The manual summarizes that the high level of inter-rater reliability suggests that the “BDI-2 scoring criteria are well developed and easily understood,

allowing for consistent scoring across a variety of examiners” (Newborg, 2005, p. 116). This highlights the strength of scoring similarities in norm-referenced assessments, which encourage a limited amount of variation between each examiner. The manual states that the data presented demonstrates that the BDI-2’s scores are very reliable, which helps professionals have the confidence in the results they calculate on the test (Newborg, 2005, p. 116).

However, there are criticisms regarding the reliability for the lower ranges of scores. Visser et al. (2012) reviewed eighteen norm-referenced assessment’s reliability across the developmental functioning levels (p. 104). They state that the lower developmental functioning levels’ reliability is compromised due to the characteristics of both the sample and methods used in creating the norms. It is suggested that the reliability affects not only younger children but also younger children with possible developmental delays (Visser et al., 2012, p. 104). For children being assessed for eligibility in early intervention, this can have an impact on the decisions made based on scores for children requesting services. Low reliability, for the lower developmental functioning levels, can happen by issues surrounding test floors and item gradients. The authors propose a solution to resolve the test floors and item gradients – increasing the available number of scoring alternatives. Providing alternative scoring options, an increase in test scores can be seen for children who have a high probability in achieving a skill but is unable to demonstrate it for the assessment (Visser et al., 2012, p. 104-105). Not all norm-referenced assessments have low reliability in the lower developmental functioning levels. For example, the *Stanford-Binet Intelligence Scales, Fifth Edition* has a higher reliability in the lower levels because examiners have a bigger range to establish

the test floor. The reliability for the internal consistency ranges from .84-.89 in the subtests and .90-.98 for the factors. An accommodation to the assessment is allowing the examiner to make the decision on where to start the test based on child's background information (Visser et al., 2012, p. 111). Visser et al. (2012) reviewed the BDI-2; it was summarized that the test floors and item gradients were problematic. Thus, these issues cause a less desirable internal consistency reliability coefficient (p.113). Each norm-referenced assessments should be examined for their reliability quality, and how the reliability affects the children who are being evaluated for early intervention services. It is also critical to examine any accommodations that can be made for younger children and/or children with developmental delays.

Norm-referenced assessments and the scores for younger children have been criticized regarding their validity. Andersson (2004) presents three points that question norm-referenced assessments – placing a lot of emphasis on items that have little meaning or relevance to real life, having an unfamiliar examiner test the child with insignificant items, and having an unwavering scoring criteria complemented by a rigorous administration process (p.58). Various norm-referenced assessments have responded to the criticisms by pointing out that a majority of the items can be evaluated based on parent report, direct observation in the natural setting, or both. Another response to these arguments is that some assessments have incorporated children with disabilities in their norm sampling (Andersson, 2004, p.58-59). However, Andersson (2004) challenges the parent report data used in norm-referenced assessments; it is questionable how many parents truly comprehend and respond to questions regarding a child's progress (p.59). Even though the terminology can be overwhelming and possibly

affect the data received from parents, there is evidence that publishers have made strides in addressing and resolving these criticisms. The DAYC-2 was evaluated for criterion-predictive validity compared to the BDI-2 - large correlations were found between the domains of the DAYC-2 measuring similar constructs as the BDI-2 (Swartzmiller, 2014). The DAYC-2 is just one type of norm-referenced assessment that has made strides to improve its validity.

Criterion-referenced assessments. Criterion-referenced assessments are also referred as curriculum-based assessments or alternate assessments. Criterion-referenced assessments differ from norm-referenced assessments by not “comparing a person’s performance to that of others, the performance of an individual, or a group, is compared to a predetermined criterion or standard” (Kaufman and Kaufman, 2004, p. 104). Hosp, Hosp and Howell (2006) claim that criterion-referenced assessments have gone through a standardization process; thus, criterion-referenced assessments should be considered as formal as norm-referenced assessments (p. 23). Criterion-referenced assessments meet the two characteristics of standardized quality – the assessment has a fixed scoring procedure and there has been a standard that relates scores to a relevant interpretation. A strength for criterion-referenced assessments is the criteria and constructs parallel with core curriculum standards and objectives, which can guide educators to areas where the child excels or has deficits (Hosp, Hosp, & Howell, 2006, p. 24). Macy, Bricker, and Squires (2005) suggest that criterion-referenced assessments can be more valuable than norm-referenced assessments because they allow a more personalized and inclusive report of the child. Having this extensive understanding of the child during eligibility, professionals could have an improved direction on goal planning tailored for that

particular child's functional areas (Macy, Bricker, & Squires, 2005, p. 13). Even with this holistic approach, many criterion-referenced assessments do not provide any data or information regarding the validity or reliability of the achieved scores (Andersson, 2004 and Visser et al. 2012).

The research on criterion-referenced assessments' reliability is limited. When a professional looks at the publisher sites or instrument crosswalks, there is minimal information provided on any reliability data. For example, the Early Childhood Outcomes (ECO) Center website provides draft crosswalks of commonly used assessments; the AEPS assessment is one of the few criterion-referenced assessments that provides any information besides 'not available/provided' next to the data provided on reliability tab (ECO, 2009, p. 2). This finding is alarming because reliability needs to be addressed in assessments that determine eligibility. Macy, Bricker, & Squires (2005) found that the inter-rater reliability of the AEPS:E had a total raw score of .93 in the Pearson correlation and a raw score of .92 using a Cohen's kappa statistic (p. 9). For this particular assessment, this study helps advocate this assessment's use in eligibility determination. However, professionals cannot generalize these findings to other criterion-referenced assessments since they are uniquely different.

The two common forms of validity researched is social validity and concurrent validity in criterion-referenced assessments. According to Bagnato et al. (2014) social validity is an important component to these assessments but is unappreciated by many researchers. Social validity refers to the approval, acceptability and overall satisfaction of a specific type of evaluation or intervention (Bagnato et al., 2014, p 117). Within the study comparing the social validity between criterion and norm-referenced assessments,

Bagnato et al. (2014) found most professionals and parents rated criterion-referenced assessments as the preferred assessment to determine eligibility and purposes in early intervention programs. The highest correlation found was the acceptability and evidence standards within criterion-referenced assessments ($p < .001$): both professionals and parents find that “measures that are understandable and sensible in form, practice in content, and valid and applicable to their own children as most desirable” (Bagnato et al., 2014, p. 125). This study supports the rationale that criterion-referenced assessments are more focused on the individual’s performance rather than the individual compared to a normative sample.

Concurrent validity is a common term found in criterion-referenced assessment research because it allows a comparison between criterion-referenced assessments and norm-referenced assessments; concurrent validity compares test scores to “some currently available criterion measure” (Hallam et al., 2014, p. 107). Concurrent validity helps examine the adequacy and agreement of the criterion-referenced assessment’s scores/results compared to results of norm-referenced assessments. In a study conducted by Hallam et al. (2014), they found that there was a 78% agreement between the two assessments when looking at whether a child was deemed on track or delayed developmentally and 29% of the children had at least one disagreement in the domains. When using the AEPS and the BDI-2, the AEPS (criterion-referenced) had a higher number of children identified as delayed compared to the BDI-2. This data implies that more children are found eligible in developmental delays using a criterion-referenced tool (Hallam et al., 2014, p. 111). However, Hallam et al. (2014) found that the BDI-2 had a higher frequency of identifying a child delayed in the cognitive and communication

domains compared to the AEPS, which can be seen as concerning when looking at the possible children being overlooked as having a delay in those two domains when AEPS is administered (p.111). A limitation of this study was a small sample size and the authors state that the findings “should not be considered generalizable” (Hallam et al., 2014, p. 113). Even though the sample size was small, the agreement and disagreement factors are something to further explore when comparing the concurrent validity between these two types of assessments.

Implications

Understanding the two types of assessments to determine early intervention eligibility is critical in the controversy of which assessment is best. Bagnato (2005) summarizes a common criticism about both assessments. Norm-referenced assessments “are criticized for their lack of functionality and lack of congruence with early intervention purposes” (Bagnato, 2005, p. 19). Yet, the criterion-referenced assessment is “criticized for its lack of rigor and an established research base” (Bagnato, 2005, p. 19). A majority of studies conducted to compare the assessments highlight these points. Each assessment has compelling arguments about why it should not be used. Most states and local agencies require the incorporation of norm-referenced assessments within the eligibility process. Norm-referenced assessments provide data on the demographic of children within designated areas or states, which can be helpful in the policy decision-making (Hallam, Lyons, Pretti-Fontczak & Grisham-Brown, 2014, p.107). However, Macy et al (2005) argue that criterion-referenced assessments can be more efficient and cost effective because professionals will administer an assessment that is child-specific. Rather than using other assessments for the standardized norm sampling comparison, the

criterion-referenced assessments provide professionals with meaningful goals and direct observations from the child that can assist in the development of goals and intervention strategies (Macy et al., 2005, p. 2).

Hallam et al. (2014) conducted a study that compared a particular criterion-referenced assessment (Assessment, Evaluation, and Programming System Second Edition [AEPS 2nd ed.]) and a norm-referenced assessment (BDI-2). The study investigated how much the scores correlated between the two assessments when determining a child's eligibility in early intervention. A strength in the study was that the teachers were trained in the AEPS 2nd ed and research assistants were trained in the BDI-2. The study found that a disagreement of 29% existed between the two assessments' interpretations. Respectfully, there were seven children that were interpreted as on track from the BDI-2 but not from the AEPS 2nd ed; and there was four children that were assessed on track by the AEPS 2nd ed. but not by BDI-2. Even though the study only compared a specific assessment from each category, a limitation could be the difference in who evaluated the children based on each assessment. A lack of efficient training or biased could influenced examiners during testing. The researchers pointed out a concern that could affect a child's eligibility if criterion-referenced assessments were used: the BDI-2 appeared to pick up discrepancies in both the communication and cognitive areas whereas the AEPS 2nd ed. did not (Hallam et al., 2014, p. 108-111). A deficit in both communication and cognitive areas are critical to detect with a child being evaluated for early intervention. However, Keilty, LaRocco, and Casell (2009) cited an argument that contradicted the above findings. They cited a study completed by Bricker, Yovanoff, Capt, and Allen (2003) showing that criterion-referenced assessments not only equate the

same findings as norm-referenced assessments, but they also provided more information regarding the particular child (p. 245).

A study by Keilty et al. (2009) reported on responses from a focus group regarding the use of criterion-referenced assessments for eligibility. There was a combination of mixed feelings within the group. The group felt that criterion-referenced assessments allowed flexibility in observations and scoring based on the child's responses within the natural environment. The results helped design a better initial IFSP compared to norm-referenced scores. It also provided information for children, who did not qualify for services, and parents on the goals needed to be addressed within the home environment. The group participants recognized difficulty in connecting standardized scores from norm-referenced assessments to the initial program development. In addition, the group felt that recent professionals would be more successful in conducting criterion-referenced assessments compared to norm-referenced assessments (p. 249-251). The last point causes a professional to question how reliable criterion-referenced assessments are since an examiner at any level can conduct them – perhaps a new professional does not have a high confidence level in completing the assessment?

The same focus group addressed another side of the debate. Although the participants expressed a positive outlook to use criterion-referenced assessments, they also commented on the reality of the eligibility process. In Keilty et al. (2009) the group stated that the preference would be to use criterion-referenced assessments; however, they mentioned being uncomfortable using that type of assessments as the only method of eligibility determination. They expressed “a sense of comfort from having a standard score as justification for their eligibility decisions” (Keilty et al., 2009, p. 248). The

professionals felt more confident using criterion-referenced assessments as a progress monitoring tool compared to utilizing the assessment in the eligibility determination (Keilty et al., 2009, p. 253). A limitation of this study is that the group was only comprised of seven agencies in a particular geography; the researchers justified pairing the participants with fellow co-workers in order to facilitate an honest conversation about the topic. Despite this limitation, the study addresses valid points that professionals have to face regarding the early intervention process.

Currently, norm-referenced assessments are the preferred method of evaluating a child for early intervention. There are professionals within the early intervention field that believe norm-referenced assessments are the best method due to the psychometric integrity; these assessments provide scales that effectively diagnose and document an eligibility decision (Bagnato, 2005, p.19). Regardless of which type of assessment is used in either a state or local agency, the most concerning issue is the large range of variation within a particular assessment type and who administers it. Hallam et al. (2014) explain the current issue eloquently. They point out that the “diversity in eligibility practices may lead to different interpretations and team decisions not based on a child’s need or abilities, but based on the characteristics of different types of tests” (Hallam et al., 2014, p. 107). This highlights the larger issue that the spectrum of assessments used can take away from the focus of the most important component – the child. It is a disturbing issue that a child’s scores and eligibility is contingent upon where the family resides (state or local agency). Hallam et al (2014) cite three causes for the variations: “(a) the disability category used to qualify children varies; (b) the measures used to determine eligibility vary from state to state and program to program; and (c) the criterion

used to determine whether a particular child is eligible varies” (p. 107). The qualities can have detrimental effects on whether a child receives services or not, which is effecting a child’s opportunity to have the early intervention deserved.

Chapter 3

Methodology

Participants

The states' data will be examined using archival data. The sample size will be $n=50$.

The demographics will be obtained for the examiner's qualifications and any other data that the site or office provided the researcher.

Materials

The researcher examined states' early intervention websites to see if the assessments, evaluator's qualifications, and the expected number of children that are predicted needing services information was available.

Design

The independent variables are the type of assessments and evaluator's qualifications that each state uses. The dependent variable is the amount of children each state finds eligible. A correlation will be used to determine if there is a significant relationship (0.05) between the actual number of referred children to the projected amount of children that should score two deviations from the mean in the assessment. If there is a significant difference in the relationship between the project number of children and the actual amount of children that are referred by the state, then the independent variables can be further examined to see the discrepancy between the two amounts.

Procedure

The assessment and qualifications information was collected from the specific state's website. The information was provided on either the early intervention website or provided in a policy and procedures manual included on the website.

The data collected regarding the type of assessments required by each state were coded in the following manner: (1) norm-referenced assessment required, (2) criterion-referenced assessment required, (3) either norm-referenced or criterion-referenced assessment, (4) both norm-referenced and criterion-referenced assessments, (5) no type of assessment specified. The qualifications of an examiner in each state was coded as (1) no qualifications specified or (2) required either a certification or higher degree named as a qualified personnel in state documents.

Chapter 4

Results

With the data collected, frequencies and descriptive statistics were calculated to further investigate the hypotheses stated in Chapter 1. The statistics used were adjusted due to the inability to obtain the number of eligible children out of the number evaluated within the study's timeframe.

Hypothesis 1

The type of assessments required by each state was coded accordingly. After running descriptive statistics, 15 states used norm-referenced assessments (2.00). 18 states did not have a required assessment specified used by evaluators (5.00). Less than 50% of the states made a definite decision on what type of assessments they wanted to be used for early intervention eligibility determination. Only one state required agencies to use both a norm-referenced and a criterion-referenced assessment to determine eligibility.

Table 1.

Assessment Descriptive Statistics

Type of Assessment	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	15	28.8	30.0	30.0
2.00	7	13.5	14.0	44.0
3.00	9	17.3	18.0	62.0
4.00	1	1.9	2.0	64.0
5.00	18	34.6	36.0	100.0
Total	50	96.2	100.0	

Note. These results are from data retrieved from the sample of 50 states' websites

Assessments

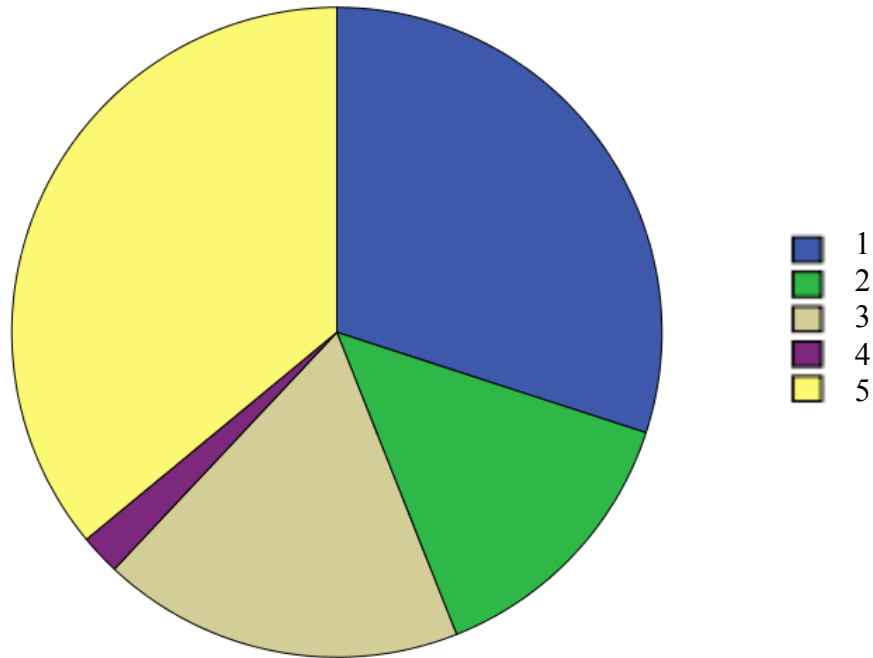


Figure 1. Type of assessments used by each state.

Hypothesis 2

The qualifications of personnel that were stated by each state were analyzed by frequencies. The qualifications that were coded at 2.00 were stated by ‘qualified personnel.’ This could include certifications, higher degrees, or other specifications set by the individual state. 80% of the states (n=40) required the use of a qualified personnel to give the assessment. 20% of the states (n=10) did not clarify if there was any requirements that an examiner needed to meet in order to conduct an assessment. The vagueness of the particular guidelines set for evaluators limited the data to be collected under the broad term of qualified personnel. The phrase was noted in a lot of policies

throughout many states but few states gave a further explanation of the exact credentials needed to be characterized as a qualified personnel.

Table 2.

Qualifications of Personnel Descriptive Statistics

Type of Qualifications	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	10	19.2	20.0	20.0
2.00	40	76.9	80.0	100.0
Total	50	96.2	100.0	

Note. These results are from data retrieved from the sample of 50 states' websites

Qualifications

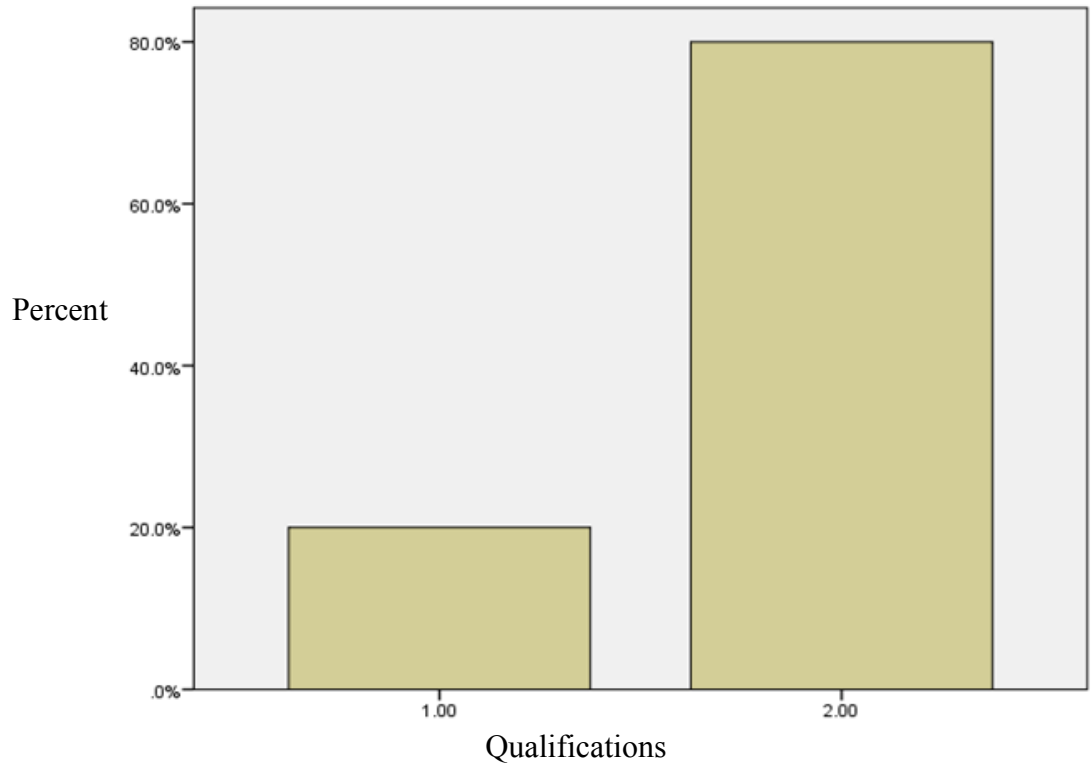


Figure 2. Type of qualifications determined by each state.

Chapter 5

Discussion

The purpose of this study was to investigate the type of assessments and examiner qualifications required by each state's early intervention program and the data of children found eligible for early intervention. It is important to see if the children who are the most critical in this age population are being found eligible through the evaluation process. The data was obtained by accessing the states' websites that provided the information on the assessments and qualifications. States did not provide the data on the number of children evaluated and found eligible on any website or document.

With the available data, descriptive statistics were used to examine any commonalities or patterns within the states on the assessments used and the examiner's qualifications. With the ambiguity provided by each state, the coding was a broad interpretation of what the states required for both assessments and qualifications. The results reinforce this necessity of a broad coding because of the following results.

The first hypothesis posed the question: is there a relationship between the assessments used by each state and the number of children found eligible through the evaluation process? The majority of the states, 36%, did not have a particular type of assessment specified on any document or manual; therefore, it is unknown whether the professionals needed to use a norm or criterion referenced assessment to properly identify eligible children for early intervention. However, the second most frequent result was 30% of states stating that they required only a norm-referenced assessment to determine eligibility. Even though those states specified the type of assessment, it was rare to find a state that made a definitive choice on a particular norm-referenced assessment. It was

surprising that only one state allowed agencies to evaluate a child using both a norm and criterion referenced assessment in determining the eligibility. Even though this study was able to run only descriptive statistics, the findings reiterate the concept that states are vague and inconsistent with the type of assessments required to determine eligibility. Another way to look at this variability is whether or not a child would be found eligible in a state using only a norm-referenced assessment, or only a criterion-referenced assessment, or be eligible in a state that does not specify any type of assessment. A child and a family should not be concerned with whether the child's developmental path should be affected because of a state's ambiguity in an assessment that can either inaccurately or accurately determine eligibility status. The limitation of not collecting the number of children evaluated and eligible did not allow me to compare the vagueness of assessments required by each state and whether it effects the number of children found eligible for early intervention. It was an assumption that states would provide those numbers along with the specific type of assessments required. By states not having detailed and specific assessments listed, the validity and fidelity of states' early intervention programs have to be questioned. The second hypothesis regarding the examiner's qualifications incorporates the reliability of the states' early intervention programs.

The second hypothesis proposed the question: is there a relationship between the examiner's qualifications required by each state and the number of children found eligible through the evaluation process? After researching the states' websites, the coding for this hypothesis was extremely broad and encompassed the widely used term of qualified personnel. 80% of the states required the evaluators to be qualified personnel,

but ten states did not clarify any certifications, degrees, or licenses required to determine eligibility. Regardless of the limitation in acquiring the data of children eligible, the data collected on the examiners questions the reliability of the numbers that are reported by each state. If states are flexible with who is considered a qualified personnel, then how reliable is the number of children considered eligible to receive early intervention.

Reliability surrounds the idea that any professional can replicate an assessment and it will yield the same result; however if the examiners/professionals can have an extreme variability in knowledge, background, and expertise, then how reliable can the results be from an evaluation. If the reliability is questioned, then how certain are states that the children who are considered the most critical of the age group receiving services that will improve their developmental path?

Even though Andersson (2004) claimed that norm-referenced assessments should have a strong reliability factor due to the composition and content standardization, the descriptive statistics questioned if the reliability can still be validated even with a wide range of acceptable examiners. Despite the previous literature on criticizing or promoting norm or criterion-referenced assessment, the ambiguity of the 36% of the states' specifying the required type of assessment does not help corroborate the reliability or validity of either type of assessment. Rather this study found that 18 states were not able to definitively claim one assessment or the other to be used. The inability to confirm or refute the previous literature on the preferred type of assessment or examiner within this study suggests the serious implications on the variability and ambiguity of each state's early intervention program.

The purpose of early intervention is to provide services to children who are the most in need of individualized services that will improve their developmental path, not only in daily living skills but also academic skills also. By having states providing inadequate information, it implies that states are not fully reporting information that is needed to better understand the early intervention eligibility process. By not having the data publicly documented on the number of children evaluated and eligible, the early intervention process is questioned on how accurately each state is offering services to the neediest children. This question is further reinforced by how vague states specify on which assessments and examiners are used to determine a child's future whether or not they are eligible to receive services. This study's findings express the need to further investigate states' accountability and requirements in the early intervention field. The study exposes states not reporting clearly on what type of assessments or examiners are required or the number children who are eligible through the evaluation process. Further research will be to contact state agencies directly to acquire the data of the number of children evaluated and found eligible through that assessment process. Once this data can be collected, the hypothesis can be fully analyzed and answered. The information gather from this current research and future research is imperative to best represent and advocate for the children who need early intervention services the most.

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