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Child-Care Directors' Years of Experience in Relation to the Activities Subscale Score on the
Early Childhood Environment Rating Scale-R

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Thesis submitted to the
College of Education and Human Services
at West Virginia University
in partial fulfillment of the requirements for the degree of

Master of Arts
in Educational Psychology
with an emphasis in Child Development and Family Studies

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experience

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Abstract

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Angelica Everetts

This study focused on examining the relationship between the child-care directors' years of experience in relation to the Activities subscale on the Early Childhood Environment Rating Scale-R. The data used in the study was from the Quality Rating and Improvement for West Virginia Child-Care grant, which was funded by the West Virginia Department of Health and Human Resources. The participants included 175 4-year-old classrooms across West Virginia. The Early Childhood Environment Rating Scale contains 43 items across seven subscales. This scale was used to measure the activities score of the 4-year-old classrooms. There was no significant relationship found between the directors' years of experience and the ECERS-R Activities subscale.

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Table of Contents

Title Page.....	i
Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
CHAPTER I	
Introduction.....	1
Justification of Study.....	3
Purpose of Study.....	4
Review of Literature.....	5
Quality Defined.....	7
Factors that Influence Quality.....	8
Directors' Influence on Quality.....	8
Methods to Measure Quality.....	9
Fine Motor.....	10
Art.....	11
Music Movement.....	11
Blocks.....	12
Sand/Water.....	13
Dramatic Play.....	13
Nature/Science.....	14
Math/Number.....	14
Use of TV, Video and/or computer.....	15
Promoting Acceptance of Diversity.....	15
Summary.....	16
CHAPTER II	
Methods.....	18
Procedures.....	18
Measures.....	19
Data Analysis.....	20
CHAPTER III	
Results.....	21
Discussion.....	22
Limitations & Future Research.....	27
References.....	30

Chapter I

Introduction

Quality child-care and early education is currently on the political front in the United States. In his 2013 State of the Union Address, President Obama presented his “Preschool for All” plan that emphasized the importance of early childhood education (Early Learning, 2013; High Quality, 2016). The “Preschool for All” plan included 75 billion dollars to be invested over a ten-year period. This large investment was to hasten the work of the states in raising and expanding preschool quality (High Quality, 2016). Through President Obama’s initiative, the outcomes of children were to be improved by increasing the number of preschools along with more availability of high quality programs (Early Learning, 2013; High Quality, 2016). The funding also included preschool programs that were inclusive of families with children that fell in the low to moderate income level (Early Learning, 2013; High Quality, 2016).

One of the most important aspects of President Obama’s initiative addressed the issue of preschool teachers receiving the same compensation as those who teach K-12 (High Quality, 2016). Eighteen states were awarded grant money to address the “Preschool for All” initiative. States receiving this funding also had to meet the basic requirements of having quality standards that were research based as well as a method of compensating preschool teachers at the same level as K-12 teachers. West Virginia was not one of the 18 states to receive this grant money.

The “Race to the Top Grant: Early Learning Challenge” was another initiative through President Obama’s administration to raise the quality of child-care (Early Learning, 2013). This grant was intended to improve the early learning and development of children through quality programs. In addition, it was to help in closing the achievement gap of high-needs children. Through this grant, states were to set higher standards, provide significant links, which included

family involvement, mental health, nutrition, and health of children in need. States were to apply for this money through the federal government. However, as of 2015, the money for this grant was eliminated by the government (Strauss, 2014).

These initiatives are just two examples of recent government incentives to improve the quality of child-care. Most recently the focus of quality preschool is becoming stronger with the 2015 passage of the “Every Student Succeeds Act” which includes federal support to states so they can expand quality preschools (White House Report, 2015). This Act provides preschool aged children with the opportunity to begin their education with quality experiences. These early quality experiences afford children the chance to establish a strong foundation for their overall educational career.

In the discussion of early childhood education, quality is the key word, because poor quality programs can lead to a larger achievement gap and most programs today are not considered quality (ECE Consensus Letter, 2015). This is of great concern. Child-care quality is best measured through structural and process quality (The NICHD Study, 2006; Boo, Araujo, Tome, 2016). The structural features are those that are regulated at the state level or by public agencies. These features include group size, child to teacher ratio, and level of teacher education. The process features are measured through classroom observations and include children’s daily experiences. A child’s daily experiences comprise of their social interactions with the teacher and activities. Structural features have a direct impact on the quality of the process features. Hartman, Warash, Curtis, and Hirst (2016a) found that when the regulations at the state level were strict, the preschool classroom had higher process and structural quality. Phillipson, Burchinal, Howes, and Cryer (1997), also had similar findings that preschool classrooms that had stricter regulations had higher process quality.

Justification of Study

It is documented that teachers who have earned Bachelor of Arts degrees with preparation in early childhood have children in their preschool classroom who demonstrate expected child outcomes (Barnett, 2003). Child-care quality is attained through the educational credentials that teachers have obtained. Directors with more advanced credentials also have an impact on the quality of child-care (Morgan, n.d.). Directors need to be very knowledgeable in the field of child development, program development, interactions with families, caring, and the ability to lead their staff for a quality child-care experience to be provided for children. If directors are lacking competence and do not provided the necessary support to their teachers, this undermines the quality of a child-care center.

The question in this study is whether the directors have an influence on the quality of child-care centers in regard to the type of activities that are provided in the classrooms. It is not uncommon for directors to provide training for their teachers. In the state of West Virginia, the directors of the child-care centers often lead the trainings for their teachers on developmentally appropriate practices. Researching the impact of directors' experience on aspects of quality could be important information for the child-care community. Most states have developed a professional development system to keep child-care directors and teachers up to date with current practices. Most states mandate that directors and teachers maintain yearly hours of training. It is known that educational attainment assists with the quality of a center, but it is not known if experience plays a role in quality.

Purpose of the Study

This study investigated the directors' years of experience as it relates to the Activities subscale on the second edition of the Early Childhood Environment Rating Scale. The Activities subscale include items such as practices in fine motor, art, music/movement, blocks, sand/water, dramatic play, nature/science, math/number, use of TV video, and or computers, and promoting acceptance of diversity (Cryer, Harms, & Riley, 2003). In essence, would the experience of the directors have an impact on the quality of child-care activities conducted by the teachers?

Literature Review

Longitudinal Studies

The importance of quality spans over many decades. There are classic longitudinal research studies that lend support to the benefits of quality child-care. Some of the most prestigious are the Carolina Abecedarian Project and High Scope Perry Preschool Project. The push for quality in child-care settings is apparent through the research findings of these programs. The Carolina Abecedarian Project study provided high quality child-care intervention for at-risk-children who were predominantly African Americans (The Abecedarian Project, 2016). This project provided a group of 111 lower social economic background children with the opportunity to attend a child-care center that valued a quality learning environment from infancy to five-years of age (Gallagher, 2015; The Abecedarian Project, 2016). The noted longitudinal benefits from the Abecedarian Project included the number of participants who secured jobs and higher education attainment (Gallagher, 2015). These participants continued receiving benefits over the course of their life (Gallagher, 2015; The Abecedarian Project, 2016).

The High Scope Perry Preschool Project in Ypsilanti, Michigan had similar results in finding that the children who received a high quality preschool experience had a higher rate of completing high school, less arrests, and a lower rate of receiving welfare in adulthood (Schweinhart & Weikart, 1993; Barnett, 1985; Derman-Sparks & Moore, 2016). The High Scope Perry Preschool Project was an experimental study that provided an active learning high quality program to children. This project consisted of 123 African American children who were three and four years old. The children came from a low socioeconomic status with the potential of failing school. The children were randomly selected to a non-program and program group. The program group was composed of 58 children, and the non-program had 65 children. The program was an active learning high quality child-care experience for three and four-year olds.

Participants received positive benefits throughout life. The children in the non-program group did not participate in any preschool program. Just as the Abecedarian Project, the High Scope Perry Preschool Project proved to have beneficial effects for children.

Analyzing the benefits of quality preschools, James Heckman, a Henry Schultz Distinguished Service Professor of Economics at the University of Chicago and Nobel Memorial Prize winner in economics, has claimed that quality preschool programs for children are helping the economy (About Professor Heckman). By providing programs for at-risk children, it decreases the need for society to pay expenses due to crime and poor health (Invest in Early Childhood). According to Heckman, an investment in early childhood can reduce the current insufficiencies and make the economy stronger (Invest in Early Childhood). Heckman with the collaboration of economists, psychologists, statisticians, and neuroscientists found the outcomes of health, economic, and social outcomes at the society and individual level are impacted by early childhood development. Kate Gallagher, child development expert, described in her TED Talk the Abecedarian Project, the impact: “By 21 years of age, only 40% of the non-participants were attending four-year college or employed in skilled labor compared to almost 70% of the Abecedarians” (Gallagher, 2015, n.p.).

Heckman’s analysis of the Perry Preschool found a 7% to 10% investment return demonstrated by the increase of achievement in school and career (Heckman, Moon, Pinto, Savelyev, and Yavitz,2009). Heckman (2012) stated, “the highest rate of return in early childhood development comes from investing as early as possible, from birth through age five, in disadvantaged families. Starting at age three or four is too little too late, as it fails to recognize that skills beget skills in complementary and a dynamic way. Efforts should focus on the first years for the greatest efficiency and effectiveness. The best investment is in quality early

childhood development from birth to five for disadvantaged children and their families” (p.1) (as cited in Invest in Early Childhood).

Although these studies have some variations, their collective findings generally reveal that providing children with quality experiences in early childhood has longer lasting impacts on the child and society (Gallagher, 2015; The Abecedarian Project, 2016; Invest in Early Childhood). The findings of these longitudinal studies are significant for quality issues of child-care as these issues are still being addressed today. The structure of the learning environment as well as the relationships between child, teacher, and parents are still important factors in quality.

Quality Defined

Quality child-care according to the National Association for the Education of Young Children (NAEYC) is defined as “high quality early childhood programs provide a safe, nurturing environment that promotes the physical, social emotional and cognitive development of young children while responding to the needs of families” (DeBord, n.d., pg. 1). NAEYC has made efforts to promote quality through their accreditation system but for various reasons such as the costs, some centers do not choose accreditation as a validation towards quality. West Virginia, where this study took place, uses a three-tier system with centers earning NAEYC accreditation can obtain the highest tier and the highest level of subsidized reimbursement. Nationally, the move towards a Quality Rating and Improvement System (QRIS) is an approach used to provide access to high quality child-care to families, offer aid and incentives to the child-care centers who improve their rating, and inform parents about child-care quality (About QRIS; Schulmank, Matthews, Blank, & Ewen, 2012). This system awards a higher rating to those centers that meet the standards for high quality. Many states have or are in the process of developing a QRIS so child-care centers can improve the quality and qualify for federal funds.

The QRIS was a very important aspect included in the “Race to the Top Grant: Early Learning Challenge,” in which states were to create and implement as required by the grant. As of 2010, there were 22 statewide QRIS programs and four states were using QRIS in their communities. The requirements of the QRIS vary from state to state.

Factors that Influence Quality

The primary factors involved in measuring the quality of child-care are dependent upon the structural and process features of the child-care facility. The process quality is the experiences of the children throughout their day, which includes child and adult interactions and the children’s participation in activities (National Institute of Child, 2006). Process quality is highly influenced by the structural quality (Hartman, et al., 2016a). The structural quality of a child-care setting includes group size, provider’s educational level and training, and adult to child ratio (National Institute of Child Health and Human Development, 2006). Preschool teachers in 24 states are under the requirement of holding a Bachelor’s degree and having specialized training in early childhood for qualifications of a teacher (High-Quality, 2016). Of the teachers currently teaching early childhood education, only 45% of them have obtained their Bachelor’s degree. Also, a teacher continuing their education through professional development has an impact on the quality. Professional development provides teachers with information about the current education and discipline practices in their field (Lebeau, 2008). Teacher participation in professional development, allows the teacher to learn new techniques and practices that they can implement into their classrooms.

Director’s Influence on Quality

Research states that the director’s level of education has an impact on the program’s quality (McCormick Center, 2014). Directors who completed program administration training

gave further support to their teacher's professional development. The McCormick Center's research revealed that directors with this advanced training worked to maintain and secure funding and worked toward receiving center accreditation. It was found that directors are often former teachers. In fact, the percentage of directors who were prior classroom teachers before becoming directors was "90%." The research indicated that directors often felt unprepared for their role in administration. For example, only "27%" said they were prepared for their role as directors. Even though, most directors have been found to be "overwhelmed" in their new director positions, they have an influence on the quality of the program. Research has also found in a rural childhood population that the number of years as a director impacted the subscale score of health and safety on the ECERS-R (Hartman, Loomis, Cunningham, Warash, & Curtis, 2016b). In essence, directors do have an influence on program quality.

Methods to Measure Quality

Prevalent methods of measuring structural and process quality are the Classroom Assessment Scoring System (Pianta, La Paro, & Hamre, 2008) and the Early Childhood Environmental Rating Scale (ECERS-R) (Cryer et al., 2003). Both of these measures are widely used in child-care and West Virginia is no exception. At one time, the ECERS-R was a state mandate, but currently, it is left up to each county to decide the measure to use when evaluating a program.

The CLASS Pre-K is an instrument used to measure the process quality of children from preschool through third grade (Pianta et al., 2003). This instrument is used to assess the teacher's use of the materials in the classroom and the teacher-child interactions. It measures ten aspects, which include positive climate, negative climate, teacher sensitivity, regard for student perspectives, behavior management, productivity, instructional learning formats, concept

development, quality of feedback, and language modeling. Each of these aspects is rated as Low (1,2), Middle (3,4,5) and High (6,7).

The ECERS-R is an environmental rating scale, which includes 43 items across seven subscales (Cryer et al., 2003). The seven subscales include space and furnishings, personal care routines, language-reasoning, activities, interaction, program structure, and parent and staff (Harms, Clifford, Cryer, 2005; Cryer, et al., 2003). The items 1-37 on the Environmental Rating Scale focus on the quality of the experiences provided to the children. On the scale the items 38-43 emphasis the quality of the requirements for the adults, which includes the staff and parents. All 43 items are scored from a one (inadequate) to seven (excellent) depending upon the quality observed (Harms et.al, 2005; Cryer et al., 2003).

In this current study, the total Activities subscale score of the ECERS-R will be used (Harms et al., 2005; Cryer et al., 2003). The Activities subscale includes the following items: fine motor, art, music/movement, blocks, sand/water, dramatic play, nature/science, math/number, use of TV, video, and/or computer, and promoting diversity (Harms et al., 2005; Cryer et al., 2003). The items of the activities subscale are discussed below.

Fine Motor. These are “activities...that encourage the development of eye-hand coordination using the fingers and eyes together to manipulate objects” (Cryer et al., 2003, pg.189). The establishment of well-developed eye-hand coordination skills assists the children in learning skills to help themselves and prepares children for their future academic tasks (Cryer et al., 2003). The materials and the activities planned in the classroom impacts the type of fine motor skills that the children will have the opportunity to practice. Fine motor materials include small building toys, art materials, manipulatives, and puzzles. Small building toys include items such as Lincoln logs, tinker toys and magnetic blocks. A quality classroom fine motor experience

as described in the ECERS-R rating scale under the highest indicator would be that materials are available and changed based on the interest of the children (Harms, et al., 2005). The shelves in the classroom are clearly labeled, so children can select what to play with on their own.

Art. Through the completion of art activities in the classroom, it provides the children with opportunities to develop various skills (Cryer et al., 2003). For example: The use of various art materials in the classroom allows the children to practice their fine motor skills. Art also gives the children an opportunity to explore shapes, space, lines, and colors, and develop ways to express themselves creatively. Art materials include crayons, watercolors markers, paper, paints and clay. Children who experience quality art experiences as described by the ECERS-R rating scale have access to materials that are three-dimensional, such as clay and play dough (Harms, et al., 2005). These activities in the classroom are connected to other learning experiences. Children are given the opportunity to continue art projects over the span of many days for those who are age four and older.

Music/Movement. Music experiences for children consist of two aspects: listening and producing (Cryer et al., 2003). Children produce music, which includes singing nursery rhymes, creating their own songs, and playing musical instruments. Listening to music in the classroom can be experienced using a computer or a CD player. Music activities for young children are comprised of singing songs during transitions times, music playing in the background during naptime, and having access to various instruments. Music experiences allow the children to participate in movement. These experiences include exercising, dancing, and marching. Movement activities that can be provided within the classroom include freeze dancing and clapping to various rhymes. Quality music/movement experiences described on the highest indicator on the ECERS-R rating scale is providing children with music during group and free

play time each day (Harms et al., 2005). Children are provided with opportunities to learn more about music, such as a special guest bringing in instruments. A child can express their creativity through music activities.

Blocks. Children use blocks in designing many different structures (Cryer et al., 2003). The type of structures built is dependent upon the age of the children. Children who are older create structures that are more complex than younger children. The blocks in the classroom should be organized, abundant, accessed easily by children, and located in a space without traffic. They are composed of different materials that include cardboard, cloth-covered, wood, plastic, and vinyl-covered. The blocks can be solid and hollow.

Types of blocks to be included in the classroom are the following: unit, large hollow, and homemade (Cryer et al., 2003). The unit blocks vary in size and shape, and include shapes such as rectangles, cylinders, squares, and arches. This type of block can be used by children to create simplistic to complex structures. Most of these blocks are made of hard wood, but plastic-made blocks can also be used in the classroom. The large hollow blocks are made of hard plastic, cardboard, or wood. They are larger than the unit blocks, which provide the children with the opportunity to construct larger stable structures. Children create structures such as homes, and props used in their dramatic play. The homemade blocks are created from materials such as cardboard boxes, plastic containers, and tissue boxes. These blocks should be able to be stacked and used to build structures by the children. A quality block experience as described on the highest indicator on the ECERS-R rating scale would be the availability of two types of blocks and having accessories (cars, trains, toy people and animals) presented everyday (Harms et al., 2005; Cryer et al., 2003). The accessories and blocks are labeled and found on open shelves (Harms et al., 2005). The children also have access to play with blocks outside.

Sand/Water. Sand and water play provide stress relief for children, while also providing children with the opportunity for measurement and natural science learning (Cryer et al., 2003). Sand and water are found outside but can also be included indoors. Children should be provided with toys (Ex: measuring cups, shovels, and funnels) that allow for experimenting and play (Ex: animals, people, and small trucks). A quality classroom experience of sand and water is provided to the children by being able to play with sand and water inside and outside (Harms et al., 2005). The children are also provided with various activities involving sand (Ex: Adding people and trucks) and water (Ex: Adding colors and bubbles) (Harms et al., 2005; Cryer et al., 2003).

Dramatic Play. Dramatic play is described by the ECERS-R as “pretending or making believe” (Cryer et al., 2003, pg. 237). Dramatic play is seen through children acting out different roles and figure manipulation. This type of play allows children to practice their language skills and learn social skills. Children who are preschool age participate in dramatic play with other children (Ex: I am the Mom, and you can be the Dad). This play occurs throughout free play outside and inside. Children will pretend with any items that they find around them, but when equipment and materials are available to the children then they are provided with the opportunities for complex pretend play experiences. A few examples of materials and equipment include dress-up shirts for women and men, uniforms from different occupations, telephones, doll clothes, cash register, and office supplies. A quality dramatic play experience described on the highest indicator on the ECERS-R is a classroom that rotates their materials based on various themes (Ex: Leisure and Fantasy) (Harms et al., 2005). The props that the children are provided with to play include diversity (Ex: Different cultures are incorporated into the props) and the children are able to play actively with the props outside. The overall dramatic play within the classroom is enhanced through stories, pictures, and trips.

Nature/Science. Children need to be provided with hands-on experiences to explore and test the world around them (Cryer et al., 2003). These experiences should be developmentally appropriate for the children. A “developmentally appropriate nature/science experiences include exploring natural things, both indoors and out, learning words for natural things, and understanding natural processes” (Cryer et al., 2003, pg. 253). Through the children’s exposure of the experiences described above and being provided with the opportunity to be outside, they are developing their vocabulary and learning about naturally occurring concepts. The highest quality classroom nature/science experience as described on the ECERS-R rating scale as the children being provided with one nature/science activity (Ex: cooking and field trips) every two weeks by the staff at the least (Harms et al., 2005). Children expand their learning from the hands-on learning experiences through books, pictures, and other materials provided in the classroom.

Math/Number. Children, at this young age, need to be provided with experiences in math and numbers that are concrete (Cryer et al., 2003). The classroom needs to provide children with hands-on exploration experiences that include shape, size, and quantity. These experiences provided to the children are developmentally appropriate. There are five different types of math materials that should be included which are counting (Ex: teddy bears used for counting), measuring (Ex: rulers to measure), comparing quantities (Ex: puzzles), recognizing shapes (Ex: magnetic shapes), and becoming familiar with written numbers (calendar). Quality math/number experiences described by the highest indicator on the ECERS-R rating scale provide the children with math/number activities that require assistance from the adult (Ex: using a chart to compare the various heights of the children) (Harms et al., 2005). These experiences should be provided to the children every two weeks at the least. The materials in the classroom are switched out in

order to retain the interest of the children (Ex: taking out the teddy bears used for counting and substituting them for the dinosaurs).

Use of TV, Video, and/or Computer. The use of these materials in the classroom are not required, but should be used in a developmentally appropriate way to supplement the hands-on experiences (Cryer et al., 2003). As defined for the use of TV, Video, and/ or computer “developmentally appropriate means that the materials and activities are right for the ages and interests of the children, do not encourage anti-social learning, or compromise the emotional security of any child in the group” (Cryer et al., 2003, pg. 279). These materials should not include frightening, sexual explicit, violence, and prejudice against people groups. The children need to be provided with an alternative activity, if they don’t want to partake in these activities (For example: a child could complete a puzzle or look at a book). A high quality experience on the ECERS-R rating scale with TV, Video, and/or computers includes materials presented to expand and to support the learning activities and themes in the classroom (Ex: children learn information about a farm from a video before taking a fieldtrip there) (Harms et al., 2005). The computer software in the classroom allows the children to express their creativity (Ex: painting program).

Promoting Acceptance of Diversity. Diversity according to the ECERS-R, is “the difference found in groups of people with regard to race, religion, culture, ability, age, or gender” (Cryer et al., 2003, pg. 287). The acceptance of diversity is a component of a high quality early childhood experience (Cryer et al., 2003). The acceptance of diversity is taught through valuing each other’s differences and focusing on the similarities that bring everyone together. Quality diversity in the classroom as described by the highest indicator on the ECERS-R rating scale is through the inclusion during play activities and daily routines (Ex: serving ethnic foods for

snacks) (Harms et al., 2005). Classroom activities encourage accepting and understanding others (Ex: holiday celebrations include those from other cultures).

Summary

In essence, quality child-care is advantageous to children, families and society as a whole as demonstrated by the prevalent longitudinal studies of the Carolina Abecedarian Project and High Scope Perry Preschool (Gallagher, 2015; The Abecedarian Project, 2016; Schweinhart & Weikart, 1993; Barnett, 1985; Derman- Sparks & Moore, 2016). It is known that process quality, which includes teacher interactions, has an effect on the overall quality of a center. Typically, the CLASS is used as a measure of quality of their interactions. It is also recognized that structural quality that includes teacher educational level and training has an impact on overall quality of child-care. The ECERS-R-2nd edition has been used quite frequently to measure the quality of the classroom environment, which includes the activities designed by the teacher. There are additional factors that may influence the quality of the classroom. The director's number of years of experience is one factor that has not been investigated as an influence of quality. Directors who have many years of experience may have a positive effect on the type of activities teachers provide children in the classroom. Experience is often a key element to obtaining a job. It is often a question on job applications, which leads one to believe that it is important. Kini and Podolsky (2016) in reviewing 30 studies on teacher experience found that teaching experience is associated with student achievement, better school attendance, and teachers with more experience had a positive effect on the student learning of the entire school. Experience does play a major role on teacher effectiveness in schools. However, does directors' years of experience have an effect on the classroom quality in child-care? Is director experience a factor in child-care quality? Specifically, does the directors' years of experience improve the quality of

activities conducted by the teacher in child-care? To answer this question, this study reviewed the Activities subscale of the ECERS-R-2nd edition and the directors' years of experience.

It was hypothesized based on the research of the McCormick Center (2014) and Hartman et al (2016b) that as the directors' years of experience increased the activities subscale score would increase.

Chapter II

Method

In this current study, data was used from the Quality Rating and Improvement for West Virginia Child-Care grant that was funded by the West Virginia Department of Health and Human Resources in 2010 (Warash, Curtis, & Ahern, 2011). This grant was used to evaluate preschools, family child-care centers, and after-school programs across West Virginia. The following observational quality measures were used in the evaluation: Infant-Toddler Environmental Rating Scale, School Age Care Environmental Rating Scale, Family Child-Care Environmental Rating Scale, and the Early Childhood Environmental Rating Scale to obtain data (Warash et al., 2011). Additionally, teacher and directors' years of experience and education were also collected. The current study used the existing data obtained from the ECERS-R and directors' years of experience collected during this grant.

Procedures

Across the state of West Virginia, 175 4-year old classrooms were randomly selected to participate in the study (Warash et al., 2011). The ECERS-R observational quality measure was used to assess the quality of each environment. Five observers/trainers were selected to receive reliability training at the University of North Carolina on the ECERS-R, and they trained eight more observers before data collection. The trained observers recorded the data on the ECERS-R recording sheets by hand, and this data was entered into a proprietary database that was designed for this data collection. The directors' number of years of experience data was collected. Also, number of children, teachers, and staff present and the educational level of the lead teacher were recorded by the trained observers. The accuracy and reliability of the data was confirmed through the examination of the data integrity. A protocol for this study was sent to the West

Virginia University Institutional Review Board for the Protection of Human Research Subjects to be reviewed and was approved. The confidentiality of each classroom was preserved, and the IRB Social/Behavioral Research Training was completed by all the data collectors.

Measures

Early Childhood Environmental Rating Scale

The Early Childhood Environmental Rating Scale (ECERS-R) was used in this project to assess the quality of the environment in child-care programs (Cryer et al., 2003). The scale included 43 items across seven subscales. The seven subscales included space and furnishings, personal care routines, language-reasoning, activities, interaction, program structure, and parent and staff (Harms et al., 2005; Cryer et al., 2003). All 43 items were scored from a one (inadequate) to seven (excellent) depending upon the quality observed. An item could be scored from 1.00 - 2.99 (inadequate), 3.00-4.99 (minimal), 5.00-6.99 (good), and 7 (excellent). For example, the fine motor item would be scored as inadequate according to the indicator if “Very few developmentally appropriate fine motor materials accessible for daily use and fine motor materials generally in poor repair or incomplete. (Ex. Puzzles have missing pieces, few pegs for pegboard)” (Harms et al., 2005, pg. 39). This item would be scored as excellent according to the indicator if “Materials rotated to maintain interests (Ex. Materials that are no longer of interest put away, different materials brought out) and containers and accessible storage shelves have labels to encourage self-help (Ex. Pictures or shapes used as labels on containers and shelves; word labels added for older children)” (Harms et al., 2005, pg. 39). The score for each of the seven subscales were calculated by adding the score of all the items in that subscale and dividing the total number of items that were scored (Harms et al., 2005).

The ECERS-R has been found to have interrater reliability based upon testing in the field at the following levels: indicator, item, and total score (Harms et.al, 2005). The 470 indicators percentage of agreement was 86.1%, and no item fell below 70% agreement level. The overall score correlations found included a .865 Spearman rank order and .921 Pearson product moment. Interclass correlation found for the overall score was .915. Internal consistency of the subscales range was between .71 and .88, while an internal consistency of the total scale was .92.

This current study focused on the total Activities subscale score of the ECERS-R, which includes fine motor, art, music/movement, blocks, sand/water, dramatic play, nature/science, math/number, use of TV, video, and/or computers, and prompting acceptance of diversity (Harms et al., 2005; Cryer et al., 2003). Internal consistency for the activities subscale for the current study sample was high with a Cronbach's alpha of .88.

Data Analysis

The hypothesis that guided this research was that as directors' experience increases, quality level of activities in the center will increase. In this study, the independent variable was the directors' number of years of experience as a director, and the dependent variable was the subscale score on the Activities of the ECERS-R. To test the study hypothesis, a Pearson correlation coefficient analysis was used. It was hypothesized that there would be a positive correlation between the ECERS-R Activities subscale scores and director's years of experience.

Chapter III

Results

The focus for this study was to examine the relationship between directors' years of experience on the Activities subscale score from the ECERS-R. The 476 directors who participated in the study had an average of 14.5 ($SD = 7.56$) years of experience. The range of directors' years of experience was from 2-42 years. Activities had an average score of 3.73 ($SD = 1.13$) from 476 classrooms. The Activities subscale scores ranged from one to seven. There was no significant relationship between the directors' year of experience and the ECERS-R Activities subscale score $r(476) = .013, p > .05$.

Discussion

This study was conducted to expand the lack of research on the relationship of the directors' years of experience and quality of activities conducted in child-care centers, especially in rural settings. Through this examination, it provides research that addresses the gaps in literature regarding director information and the quality of child-care settings predominantly rural populations (Maher, Frestedt, & Grace, 2008; Hartman et al., 2016b).

The hypothesis that guided the research was based on the findings of the Hartman et al. (2016b) study that as the directors' experience increased, the quality level of the activities in the center would increase. Hartman et al. (2016b) found significant results for a different subscale of the ECERS-R. This study used the same data as the current study with the focus on the subscale of health and safety practices of child-care centers and family child-care settings. The researchers included in their model the structural variables of directors' level of education and years of experience, the level of education of the staff, and the staff-child ratio of the child-care centers and family child-care settings. It was found that the only structural variable of the child-care centers and family child-care settings that was significant in regard to health and safety practices was the directors' years of experience.

In this study, no significant relationship was found between the directors' years of experience and the subscale score on the ECERS-R Activities. This finding informs us that even though the directors had approximately 14.5 years of experience on average, the more years of experience was not linked to the subscale score of the ECERS-R Activities increasing.

There was no correlation found between the directors' years of experience and the subscale score on Activities of the ECERS-R in this study. However, the Hartman et al. (2016) study mentioned above, as well as research conducted by the McCormick Center (2014), found a

link between directors and quality measures. The McCormick Center (2014) found that directors who had experience as a former teacher influenced the quality of child-care centers. The director's role was in the form of advancing the center towards national accreditation, which also includes placing value on the types of activities conducted. A very large percentage of directors were former classroom teachers before becoming child-care directors. In these studies, experience as a teacher and years of experience as a director seems to be an important factor in the quality.

Reviewing one possible reason why directors' experience did not relate to the Activities ECERS-R subscale scores in the current study, is the data was collected from child-care centers primarily from rural settings in West Virginia, in to contrast to the different settings researched by the McCormick Center (2014). There is a call for more research in unique rural areas (Maher et al., 2008) According to the U.S. Census in 2000, one-fifth of those living in the United States are from rural areas (U.S. Census Bureau, 2000). Additionally, researchers conduct studies that define urban and rural populations differently, which creates difficulties in comparing across similar populations (Maher et al., 2008).

An additional reason could be the lack of funding for the type and amount of materials that are used for activities and therefore could impact the score of the Activities subscale on the ECERS-R. In the Hartman et al (2016b) research study, it was found that the practices regarding health and safety fell in the range of minimal to inadequate. This finding provides enlightenment into the potential financial hardships faced by these centers. The centers were not able to provide a good or excellent health and safety environment for the children, which would demonstrate their lack of available resources. The lack of available resources provides one explanation for the minimal score of the Activities on the ECERS-R. In West Virginia, the percentage of poverty

among children who are five or younger is 31% (U.S. Census Bureau, 2013). Further as described by Gorski (2013) children “who come from families with poorer economic backgrounds, are not being given an opportunity to learn that is equal to that offered to children from the most privileged families. The obvious cause of this inequality lies in the finding that the most disadvantaged children attend schools that do not have basic facilities and conditions conducive to providing them with a quality education” (p. 7).

As forementioned, Hartman et al (2016b) found that the directors’ years of experiences was only significant in regard to health and safety on the ECERS-R. This finding by Hartman et al. (2016b) is interesting and could be related to the emphasis that is placed on health and safety practices emphasized by the regulatory agency that governs the child-care centers in this state. In West Virginia, the Department of Health and Human Resources describe specific requirement for health and safety to meet for child-care licensing (DHHR, 2016). An example of a health requirement by DHHR is that all the children are required to provide a copy of their immunization records (DHHR, 2016) An example of a safety requirement for a child to participate in a special activity, the center must provide the parents with information about the activity and obtain a signed permission form allowing their child to participate in the activity (DHHR, 2016). In the ECERS-R, an example of a health practice is labeling each child’s toothbrush and keeping them stored separately (Harms et al, 2005). A safety practice in the ECERS-R is that their rules are followed by the children that keep them safe (Harms et al, 2005). The health and safety requirements of DHHR are more of a checklist that the center can say they completed. These requirements change frequently by the regulatory agencies of the state. However, activities are more subjective and requires a knowledge of developmentally appropriate practice when assessed in a classroom.

It should also be noted that many child-care directors provide professional development to their staff, but these trainings may not be towards classroom activities. The West Virginia's Core Knowledge and Competencies for Early Childhood Professionals is used by directors to plan the professional development needed at their center (Core Knowledge and Competencies, 2015). The performance of an individual working in a child-care center is impacted by the numbers of years in child-care, their education and history. The professional development training is to be based on their individual learning needs. The Core Knowledge and Competencies provides a professional development guide for directors. In this guide, seven core knowledge components which include child growth and development, family and community relationships, child observation and assessment, environment and curriculum, health, safety, and nutrition, professionalism and leadership, and administration and management are evaluated for strength or areas that need growth. After the completion of this assessment, a director can plan professional development for their staff based on areas found that need growth. The professional development can vary among states which would impact the research findings. Literature or research on the specific professional development topics used by directors for trainings would provide information on the types of trainings provided to the child-care staff. Are the directors focusing their professional development for their staff on other topics such as managing behavior in the classroom or on the required accountability measures that are prevalent instead of trainings around how to provide quality activities in the classroom? These are questions that need to be considered.

Additionally, in this study, it was found that the Activities subscale score on the ECERS-R had a narrow range. The subscale scores ranged from one to seven, however, the average subscale score was 3.74 with a standard deviation of 1.13. The majority of the Activities

subscales scores on the ECERS-R were between 2.61 and 4.87. This finding informs us that on average centers were minimal in the quality of the activities and the majority of the score were in the inadequate and minimal range (Harms, et al., 2005). There is no variability among the scores from all the centers. This makes it difficult to compare the majority of the scores in relation to the directors' years of experience when all the scores fell around the same ECERS-R Activities score.

Lastly, in the study conducted by Hartman et al (2005b), the researchers controlled for the variables that were different than in the current study. The researchers used the same data sample, but controlled for metro versus rural designation and poverty level. By controlling for these variables, it provides one possible explanation for the differences in the results between this study and the current study.

Limitations & Future Research

More research should be conducted on investigating the directors' years of experience and the links of activities. However, most of the research has focused on the classroom teachers and how this impacts child-care quality with little focus on director's characteristics. The quality of child-care centers are measured through structural and process features. Process quality includes the experiences of children throughout their day, which includes the interactions among the children and adults, and the participation in activities by the children (National Institute of Child, 2006). Structural quality features include group size, provider's educational level and training, and the adult to child ratio (National Institute of Child, 2006). What we know regarding teachers from the research is that those who receive training in early childhood and obtained a bachelor's degree have children who exhibited expected child outcomes in their preschool classroom (Barnett, 2003). Around 45% of the teachers who are currently teaching in the field of early childhood education have a Bachelor's degree (High Quality, 2016). The participation in professional development by teachers can influence the quality of child-care centers. Through completing professional development trainings teachers are learning about the discipline practices and the current education in the field (Lebeau, 2008). Professional development provides teachers with the opportunity to learn new practices to incorporate into the classroom. However, limited research has been conducted on directors regarding their years of experience, educational level, and professional development.

The limited research on directors has found that directors' characteristics are related to the quality of a program. The McCormick Center (2014) found that level of education obtained by the director links to the quality. It was also found that 90% of directors were former classroom teachers, and 27% stated they were not prepared for becoming a director of a center.

Hartman et al (2016b) who studied a rural population in West Virginia found that the directors had an impact on the health and safety subscale score on the ECERS-R. Even though this is an area that is lacking in research, it has been proven to be an important area that impacts the quality of child-care experience.

There are research studies that were conducted longitudinally that provide support for the important benefits received throughout the lifetime of the children who attend quality child-care centers. The Carolina Abecedarian Project study provided African American children who were at risk with high-quality intervention in child-care (The Abecedarian Project, 2016). The benefits received by the participants included obtaining higher education attainment and earning jobs (Gallagher, 2015). These benefits continued throughout the life of the participants (Gallagher, 2015; The Abecedarian Project, 2016). The High Scope Perry Preschool Project in Michigan found that preschool children with high-quality experiences had higher rates of obtaining a high school diploma, lower rate of receiving welfare as an adult, and less arrests (Schweinhart & Weikart, 1993; Barnett, 1985; Derman-Sparks & Moore, 2016).

Additionally, researching diverse child-care centers from various regions and of different socio-economic groups might offer different results. The data in this study was from predominantly rural state that is located in Appalachia. Possible explanations for different results across socioeconomic groups could include resources, education level of the teachers, professional development, and quality adult-child interactions. The availability of resources in low socioeconomic areas that are high in poverty and have rural demographics in this current study received a low score on the ECERS-R for health and safety. These centers were not able to afford equipment that would keep the children safe, which would make it difficult for them to afford resources such as a sand and water table.

Future research should include a replication of this study, while controlling for the poverty level and metro versus rural designation. As found by Hartman et al. (2016b) when poverty level and metro versus rural designation were controlled, for the directors' years of experience was significant in regard to health and safety on the ECERS-R. Also, future research should include directors located in different areas. Directors from different areas may vary in their experience, educational level, and resources. Directors may only have experience in a child-care center and no formal education in early childhood. Another important aspect to research is the type of trainings provided to the staff from the directors. These aspects could influence the quality of the child-care centers.

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