CHARACTERISTICS ASSOCIATED WITH PROFESSIONAL DEVELOPMENT IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

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The purpose of this study was to examine relations between early childhood educators' job satisfaction, supervisor support, intrinsic motivation, and their participation in professional development. Early childhood educators (n = 498) in the state of Michigan were surveyed. Hierarchical regression analyses were conducted to examine the relationships between job characteristics and total professional development hours. Supervisor support and job satisfaction were not related to total professional development hours. Intrinsic motivation was, however, significantly associated with total professional development hours for early childhood educators.

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CHAPTER ONE

INTRODUCTION

Early childhood education is a large, diverse field encompassing programming for children ages birth through five years old. According to the National Association of Child Care Resource & Referral Agencies (NACCRRA) (2011), there are 468,954 children under age six years in the state of Michigan who require child care due to parental work commitments. Learning for infants, toddlers, and preschoolers can take place in many different settings from center-based classrooms (funded federally or by state grants, or private tuition-based) to in-home daycare settings. Daily experiences in quality child care programs greatly affect a child's social, emotional, linguistic, and cognitive development (Doherty, Forer, Lero, Goelman, & LaGrange, 2006). Quality of child care is affected by the early childhood educator's own education, training and skills. To this end, better understanding personal and professional characteristics associated with early educators' participation in professional development activities is critical to promoting high quality care.

Statement of the Problem

Unfortunately, there is not a great quantity of research on the subject of professional development in the early childhood education field. The purpose of this study is to learn what personal and professional characteristics of early childhood educators are related to their participation in professional development opportunities. The study will specifically examine supervisor support, job satisfaction, and educators' intrinsic motivation to participate in professional development trainings.

Professional development is intended to enhance the skills and knowledge of early childhood professionals. Early childhood educators may not always have positive perceptions of professional development. For example, in a study by Lanigan (2011), teachers described professional development experiences as not providing new information to them and as poor uses of their time. Jaruszewicz and White (2009) found that some training opportunities may not be relevant to an individual teacher's actual needs or interests. A better understanding of characteristics that might be perceived as barriers and that may contribute to early childhood educators' negative feelings is critical for future design and collaboration of professional development opportunities.

Feelings on professional development can be greatly affected by factors in the work environment itself as well as individual characteristics of each educator. Positive attitudes about the actual work environment can affect an early childhood educator's motivation to participate in professional development trainings. A positive and supportive work environment can include good relationships with co-workers and supervisors, contentment with the work itself, and feelings of complacency in teaching and/or caregiving capabilities which can all lead to overall job satisfaction (Wagner & French, 2010; Jenkins & Hewitt, 2010; Deci & Ryan, 2011). Support from supervisors can greatly affect an early childhood educator's attitude towards a professional development opportunity as well. For example, program leaders/supervisors may choose training opportunities without researching the desired outcomes of the training or out of convenience for the program and/or supervisor (Jaruszewicz & White, 2009) which can lead to a negative opinion and lack of motivation on the participants role seeing as they are being forced to attend a training that may or may not be of interest to them or relevant to their work. New research possibly will find it may be likely that some early childhood professionals who are more satisfied with their

overall work climate may be more interested, motivated and invested in participating in professional development trainings.

Significance of the Present Study

The present study attempts to identify characteristics related to early childhood educators' participation in professional development opportunities in the state of Michigan. Since the 2002 implementation of the Early Childhood Initiative titled "Good Start, Grow Smart", minimum ongoing professional development requirements for specific early childhood programs such as Head Start have been mandated (National Child Care Information and Technical Assistance Center, 2011). Research has found that there is a positive correlation between participation in professional development and quality of child care (Lanigan, 2011). To strive to obtain similar positive results in quality of care, many states (including Michigan) and organizations have adopted these professional development requirements and set them as a standard for ongoing professional development for all programs in the early childhood education field. It is important for future planning of professional development trainings to find out what factors, (specifically in this study supervisor support, job satisfaction, and intrinsic motivation), affect an early childhood educators' participation in professional development trainings. This study is largely important for professional development providers. It should be noted that there is question as to whether or not job satisfaction (which can be influenced by supervisor support) has an effect on motivation to seek professional development; if this is in fact true then there may be very little need for change in professional development opportunities due to the fact that providers of these trainings have little influence on the individual's actual work environment and relationships. Motivation to attend and participate in professional development should also be examined in order to better understand early childhood educators' intentions and desired

objectives for professional development whether it be to fulfill a state requirement or for personal gain. Thus, if the study finds that there is no relationship between these three characteristics (supervisor support, job satisfaction, and intrinsic motivation) and participation in professional development, this may warrant future research that specifically targets actual training styles and content.

Theoretical Framework

The theoretical framework used for the present study was Deci and Ryan's (2011) Self-Determination Theory. Self-Determination Theory (STD) is a research-based theory focusing on human motivation (Self-Determination Theory, 2011). The theory explores intrinsic (doing something because it is inherently interesting or enjoyable) and extrinsic (doing something because it leads to a separable outcome) motivation and the roles these types of motivation play in the cognitive and social development of an individual (Ryan & Deci, 2000; Self-Determination Theory, 2011). Individuals acting on intrinsic motivation carry out an activity for personal gain reasons such as personal happiness or satisfaction, feeling of accomplishment (including professional accomplishment, which is most relevant to the current study), or intended for a specific interest. However, extrinsic motivation is quite different in that "outside influences" affect a person's choices and activities. Deci and Ryan (2000) describe extrinsic motivation as participation in an activity in order to obtain an external goal for its instrumental value. These instrumental values include rewards (e.g. positive feedback from supervisors), approval from others (e.g. from supervisors or colleagues), and money (e.g. a raise).

Self-Determination Theory supports three basic psychological needs that must be satisfied to nurture well-being and health: 1) Competence (ability to manage one's environment) 2) Relatedness (a desire to interact and form relationships with others) and 3) Autonomy (having

some freedom to make decisions and to determine one's own actions. In addition, the theory proposes that the social wellness of an environment (for example in this study, a work setting) can be negatively impacted if these three psychological needs are unsupported or dissatisfied (Self-Determination Theory, 2011). In other words, according to the theory one can infer that it is imperative that an early childhood educator's work environment be supportive of competence, relatedness, and autonomy. In this study, such feelings of competence, relatedness, and autonomy are reflective of intrinsic motivation, which is hypothesized to be related to participation in training. There can be many reasons why early childhood educators participate in professional development; some may be intrinsic motivations and some may be extrinsic motivations. Using the Self-Determination Theory, Wagner & French (2010) found that teachers' motivational states influenced the way they experienced the professional development program. As previously stated, the theory proposed competence, relatedness, and autonomy are needs that should be supported for employees to achieve an overall sense of well-being. Supervisors can help support competence and autonomy by providing opportunities of freedom to make one's own decisions and manage daily tasks. Relatedness can be a component of job satisfaction in that positive relationships with other (one factor of job satisfaction in the current study) employees can foster emotional health. It was the purpose of the study to examine relationships between perceived support from supervisors, employee job satisfaction, and educators' intrinsic motivation to attend professional development activities and their actual participation in training.

Hypotheses

The following hypotheses were addressed in the current study.

H_{01}: There is no relationship between perceived supervisor support and participation in professional development.

H_{a1}: There is a positive relationship between perceived supervisor support and participation in professional development.

H_{02}: There is no relationship between job satisfaction and participation in professional development.

H_{a2}: There is a positive relationship between job satisfaction and participation in professional development.

H_{03}: There is no relationship between intrinsic motivation and participation in professional development.

H_{a3}: There is a positive relationship between intrinsic motivation and participation in professional development.

Conceptual and Operational Definitions

Professional Development. The National Association of the Education of Young Children (2011) classifies professional development experiences as education and training in which education programs are broad based including experiences specific to child development, early childhood education, math, literacy, etc. while training programs are more specific to a set of skills such as learning about discipline or promoting social emotional skills in toddlers. According to the Michigan of Bureau of Children and Adult Licensing (2008), in the current study, respondents can assume professional development opportunities will include: a) in-service trainings, b) sessions offered by community groups, faith based organizations, and child care provider associations c) workshops and courses offered by local intermediate school districts or colleges d) trainings, workshops, seminars, and conferences on early childhood, child

development, or child care administration and practices offered by early childhood organizations and e) on-line trainings.

Supervisor Support. In the current study supervisor support included how the participant felt about his/her experiences with their immediate supervisor. The Work Climate Questionnaire (Deci and Ryan 2011) was used to measure supervisor support. Respondents answered questions concerning their personal and professional relationship with their supervisor, management skills of the supervisor, and supervisor response to employee questions and actions.

Job Satisfaction. Job Satisfaction determines how content an individual is in their job. In the current study job satisfaction included work environment, co-worker relations, and overall feelings of job fulfillment. Job satisfaction was measured using two scale surveys; the Early Childhood Work Environment Survey-Short Version (Jorde-Bloom, 1985, 1996, 2010) and the Basic Need Satisfaction at Work Scale (a subscale of Deci and Ryan's Basic Psychological Needs Scale, 2011). The respondents answered general questions regarding environment, communication, staffing, and affective climate. Other issues addressed were those such as acceptance, understanding, encouragement, opportunities to make choices, communication, and personal relationships, and the individual's sense of autonomy, competence, and relatedness in the work environment.

Intrinsic Motivation. Interest and opinions on professional development were measured via participants answering questions from a subscale of the Intrinsic Motivation Inventory (Ryan 1982); the Activity Perception Questionnaire. This scale measured participant's specific experiences with a task (e.g. professional development) such as interest, enjoyment, choice, willingness to participate, and value of the activity. Items on the scale were modified slightly to

fit specific activities (e.g. professional development) without effecting its reliability or validity (Intrinsic Motivation Inventory, 1996).

CHAPTER TWO

REVIEW OF THE LITERATURE

In the following literature review, requirements for professional development and the contributions of professional development to child care are presented. Next, the literature regarding the roles of supervisor support for early childhood educators and professional development, job satisfaction among early childhood educators, and intrinsic motivation for participation in professional development are examined. To more fully understand the concepts of supervisor support, job satisfaction, and intrinsic motivation, common conceptual and operational definitions of these construct will be noted and similarities and differences in other fields as compared to early childhood education will be briefly explored.

Requirements for Professional Development and Contributions to Child Care

There are various types of childcare and early education programs in the state of Michigan. For example, there are federally funded programs such as Head Start and Early Head Start, state funded Michigan School Readiness Program (MSRP, formerly known as the Great Start Readiness Program), a variety of tuition based childcare centers, and child/group care that operates out of the caregiver's home. Settings like Head Start, MSRP, and center-based program all have to be licensed by the state of Michigan and have certain minimal requirements for staff employment varying from a bachelor's degree to a specific number of clock hours/experience in child development courses. Licensed centers and in home care facilities in the state of Michigan are required to have every caregiver meet a minimal of 12 hours of professional development each year on topics such as child development, curriculum, child discipline, health/safety, nutrition, working with parents, and licensing rules for child care centers; not including CPR, first aid, and blood borne pathogen trainings (Bureau of Children and Adult Licensing, 2008).

Federally funded programs such as Head Start and Early Head Start (which are mandated to be licensed by the state they operate in) require every teacher to participate in at least 15 clock hours of professional development per school year which exceed the requirements for state of Michigan licensed centers (Early Childhood Learning & Knowledge Center [ECLKC], 2007).

There is no single definition of professional development across the literature, although the National Professional Development Center on Inclusion (NPDCI) (2008) described professional development as adaptable and facilitated teaching and learning experiences designed to help educators acquire professional knowledge and skills as well as ways to apply and implement this knowledge in the work environment. Buysse and Winton (2009) suggest that an inadequate definition of professional development in early childhood education may be a likely contributor to the lack of a common design for the most effective ways of organizing and implementing professional development opportunities that would positively enhance the quality of care provided by early childhood educators. The lack of a common definition crosses over other professional fields as well. For example, in a study of occupational therapists, professional development is described as training that is an important factor in recruitment and retention and is essential for professionals to remain competent (Townsend, Sheffield, Stadnyk, &Beagan, 2006). The affirmation of the various definitions of professional development was further discussed in a study of professional librarians. Adanu (2006) stated that there were many definitions of professional development, however, they all have common themes such as professional development is: considered an ongoing process, perceived as maintenance, the enhancement of knowledge, broadening of knowledge and skills, and the development of personal qualities that are essential for carrying out tasks in one's job. While definitions vary

somewhat, there are several fundamental common principals that appear to be present in the definition of professional development across many different professions.

There are many different types of professional development opportunities that include but are not limited to, conferences, seminars, workshops, online training, college courses, in-service trainings, and observation with feedback. These experiences offer a chance for early childhood educators to collaborate with other professionals, learn new skills and strategies, consult with experts on specific topics, and become knowledgeable in the most recent research in early childhood.

Various characteristics can influence the quality of child care. Doherty, Forer, Lero, Goelman, and LaGrange (2006) describe high quality of child care as a combination of providing a healthy and safe environment, fostering nurturing relationships, and offering developmental and age-appropriate activities and experiences. A skilled and knowledgeable educator can be an essential component in providing high quality care. Research has sought to reveal early childhood educator characteristics associated with high quality care. Several studies have found there to be a relationship between child care training and higher quality of care in both home based and center based child care settings. For example, in a study of center based classrooms, researchers found the most significant predictor of quality care to be caregiver training (as compared to adult-child ratio, planned activities, and parent-caregiver communication) (Ghazvini & Mullis, 2002). Similar findings have been discovered in studies of home based child care; such as more training hours associated with higher quality of care and caregiver training being a consistent predictor of quality care (Burchinal, Howes, & Kontos,2002; Raikes, Raikes, & Wilcox, 2005). Also, Walker's 2002 study presented previous research (Cohen & Modigiliani, 1990, Kontos, Howes & Galinsky, 1996) illustrating early

childhood educators' affiliations with professional child care organizations and an association with higher quality care. These finding may be attributable to becoming associated with and participating in professional early childhood education organizations. One is more exposed to and aware of available professional development training opportunities in the community when part of a professional organization and, therefore, is more likely to participate in trainings and gain new knowledge and skills, increasing quality of care. In their study of family childcare settings, Burchinal and her colleagues (Burchinal, Howes, & Kontos, 2002) found that the strongest and most consistent predictor of quality child care was caregiver education and training. Additionally, Ghazvini and Mullis (2002) reported that specialized caregiver training was one of four significant predictors of higher quality care and sensitive caregiver-child interactions in center-based settings. Results suggest that child care training (i.e. professional development) is a key indicator of quality of child care and support. Good Start Grow Smart's (2002) assertion that professional development will benefit child outcomes. This study will examine the relationships between participation in professional development and potential predictors: supervisor support, job satisfaction, and intrinsic motivation.

Supervisor Support for Early Childhood Educators and Professional Development

A supervisor (also called manager, boss, administrator, director, etc.) can have an affect on many facets of an employee's job such as schedule, opportunities for advancement and higher learning (in this study specifically professional development), work responsibilities, and sometimes with whom and in what environment one works. In a study of 818 faculty members teaching in different disciplines at a university, Emmerick, Bakker, and Euwema (2009) define supervisor support as a job resource which acts as an interpersonal/social relationship that provides role clarity, participation in decision making, and performance feedback. Chenot,

Benton, and Kim (2009) define supervisor support in the field of social work as the belief that one's supervisor is offering support for both instrumental (knowledge and skills) and affective (emotional) job characteristics. The researchers found that supervisor support was a significant predictor for retention in both the specific agency of the participants as well as the field of social work. Thus, longer retention of a job may result in more job commitment and, in turn, more participation in trainings relating to increasing one's knowledge in the field. In the study of 818 faculty members, Emmerick, Bakker, and Euwema (2009) discovered that supervisor support, job control, and opportunities for professional development were all significant predictors of participants' adaptation to change in the organization and/or processes. In other words, these three components of the work environment (supervisor support, job control, and professional development) contribute to the ease of an employee's ability to change due to new standards, rules, and guidelines. This idea may be applied to the field of early childhood education in that policies and state/federal regulations for child care centers and schools are constantly changing and with more supervisor support employees may be more apt to adopt new policies and attend trainings regarding these policies. Both the prior studies emphasized emotional support as being an important component of supervisor support. Similarly, in the current study emotional support by the supervisor is a component of supervisor support, however, management skills and responses (to employee questions and actions) are also part of the definition of supervisor support and are used in the questionnaire.

Supervisor relationships can greatly affect an early childhood educator's feelings of job satisfaction. A key factor in the overall balance of the professional work environment is the attitude of the director/supervisor/principal (Hirsch, Emerick, Church, & Fuller, 2007). Furthermore, Jenkins and Hewitt (2010) found that much of teachers' self-satisfaction is derived

from approval from directors and administrators. Jorde-Bloom (1988), studied responses from 535 teachers who completed the Early Childhood Work Environment Survey. Results showed that out of ten dimensions of organizational climate (on a scale of 0-10, conditions that exist in the work setting based on the collective perceptions of workers), supervisor support was highly ranked by teachers (*M*= 7.25) indicating that supervisor support might be a key factor in the overall work climate. Supervisor support can indicate giving more power to staff to make decisions regarding professional development, lesson plans, curriculum, and defining teacher expectations; all of which may lead to higher levels of autonomy. Employees tend to be more satisfied and more committed when job expectations are established, which can play an important part in the organizational commitment of the workplace (Gable & Halliburton, 2003). Supervisors who encourage this freedom in the work place and clearly explain their expectations may actually heighten the relationships between themselves and their staff. Moye, Henkin, and Egley (2004) suggest that when employees feel more empowered in their positions they may be more inclined toward positive relationships with their supervisors. In a study by Wagner and French (2010) supervisor support (subcategories that emerged from this variable included positive informational feedback, materials/funding, time, and support for professional development) was found a significant predictor of intrinsic interest in the professional development program the participants were involved in during the study. Supervisors can play a primary role in the welfare of their staff via organization of the work climate/environment and facilitation of worker relationships which, in turn, may conceivably have an effect on job satisfaction.

Job Satisfaction Among Early Childhood Educators

For countless employees in many different lines of work, job satisfaction can be an important issue. In a 2007 study of a US manufacturing facility, Dawley, Andrews, and Bucklew describe job satisfaction as perceived organizational support; specifically in which the employees feel the organization they work for values employee contributions and wellbeing, and is committed to meeting the employee's socioemotional needs. This definition has some similarities to what is being used in the current study in that both definitions focus on emotional feelings of the job although Dawley et al.'s study of the manufacturing field does not address the physical environment nor co-worker relations (two components of job satisfaction in the current study). The manufacturing study found that perceived organizational support (job satisfaction) was a significant predictor of affective commitment in which the employee wishes to continue his/her job for intrinsic reasons such as emotional attachment (Dawley, Andrews, & Bucklew 2007). More perceived organizational support (job satisfaction) can lead to more participation in professional development experiences (Dawley, Andrews, & Bucklew 2007). According to Adanu (2006) the work environment can influence an individual's involvement in continued professional development given that a workplace that is conducive to learning plays a part in the effectiveness of the professional development. In other words, a work environment that is supportive of employee's desire to continue to gain new job skills, may enhance the degree of value that the training will have for the employee and in turn, the company and/or employer. A study of state librarians in Ghana (Adanu, 2006) found that 38.2% of participants agreed that an encouraging work atmosphere (specifically set procedures, expectations, policies, funding, and supplies) contributed to more continued professional development. The present study seeks to examine how the combination of work environment and job satisfaction are related to participation in professional development.

Several characteristics can affect one's job satisfaction. The current study will examine features of job satisfaction: work environment (surroundings, facility), co-worker relations, attitudes of staff, and supervisor support. According to Jenkins and Hewitt (2010), director support, interaction with colleagues, classroom balance, and opportunities for partnered professional development are important factors influencing early childhood educators' ability to maintain a positive perspective. The characteristics of job satisfaction in a home-based child care may vary from this definition. Owning one's own business and interactions with children were characteristics of job satisfaction in a 2002 study by Walker, in which she proposes that satisfaction with the work of family child care is a factor that may particularly influence interest in continuing education and/or participating in professional development.

Jenkins and Hewitt (2010) recommend that educators be continuously attentive to the bond between themselves and their professional environment. Being aware of surroundings, communicating with others, and observing can strengthen this bond. Early childhood educators need a sense of satisfaction with their knowledge, skills, and application as well as their emotional connections to their job (i.e. relationships with supervisors, colleagues, children, and families). Jenkins and Hewitt (2010) suggest self-monitoring of these areas will result in greater rates of retention and job satisfaction. This existing literature supports the relevance of Deci and Ryan's Self-Determination Theory components, Competence and Relatedness to the current study. The other component, Autonomy, can be affected by a supervisor's support of staff and their choices in making lesson plans and professional development choices.

In a study by Wagner and French (2010), the way teachers perceived their work environments interacted with their professional development experiences in ways that either sustained or undermined their attempts to change their teaching practices. For example, some

teachers in the study reported that there was not a lot of opportunity for control over choices in professional development or peer-sharing and collaboration; which may be categorized as components of job satisfaction. By not having many of these opportunities, these teachers were reluctant to participate in the professional development program, therefore, possibly not utilizing any of the new skills they were given in the training to their future teaching practices. Applying this information to the current study suggests that if an individual feels she works in an unsupportive/negative work environment, she may be less likely to perceive professional development experiences positively. Wagner and French (2010) also suggest that to be supportive of teachers' attempts to change their teaching practices, work environments must be structured to facilitate interest in professional growth. Jenkins and Hewitt (2010) also found in the study that participants agreed that a supportive professional environment was an important factor influencing them to do their best in their jobs and remain committed.

Co-worker relations can have a large impact on the affective work climate. Although it is not necessary for co-workers to have close, personal relationships, research has shown that close working relationships might affect job satisfaction. In a 2010 study Jenkins and Hewitt convey that teachers' own relationships with other adults in the work setting played a role in their perceptions of both themselves and their peers. If one trusts and enjoys her colleagues on a personal basis she feels more satisfied in the environment overall. Wagner and French (2010) suggest that the organization and structure of the physical layout, planning time, and program policies and processes can encourage positive co-worker relations, trust, respect, and collaboration. Together, supervisor support and job satisfaction can greatly influence an early childhood educator's fulfillment with their job and work environment. This fulfillment (or lack

of) can significantly affect the educator's motivation to continue to gain knowledge and skills through participation in professional development.

Intrinsic Motivation for Participation in Professional Development

As stated previously, in the current study, intrinsic motivation for participating in professional development will be operationalized as interest, enjoyment, choice, willingness to participate, and perceived value of the activity. Wagner and French (2010) cite several resources that document research of elementary and secondary education teachers' intrinsic motivation and how it has been significantly influenced by the degree in which the work environment supports the need for autonomy, competence, and relatedness. There is little research however, regarding professionals' motivations for participating in professional development in the field of early childhood education.

In other research concerning different professional fields such as auto manufacturing, intrinsic motivation is defined as initiating a work task because it is satisfying and interesting to the individual (Wu, Wei, Zhang & Han, 2011). Studies involving nursing (Galletta, Portoghese & Battistelli, 2011) and occupational health professionals (Salmela-Aro, Mutanen & Vuori, 2011) have outlined intrinsic motivation similarly as an autonomously driven act in which an activity is performed purely for personal interest and pleasure. Markova and Ford (2011) suggest that being intrinsically motivated means that an employee is interested and invested in his/her work and is more willing to learn new information and share it with colleagues. This statement can be applied to many different job titles including early childhood educators; thus, intrinsic motivation is similarly defined across disciplines and fields of study.

In a study of 30 *Fortune* 500 companies, intrinsic motivation was found to predict more time employees invested in work and was related to employees' demonstrations of innovation

concerning job duties (Markova & Ford, 2011). A study on auto manufacturers also found intrinsic motivation to be positively related to job performance. Wu, Wei, Zhang and Han (2011) researched the relationship between high performance work practices (HPWPs), intrinsic motivation and individual job performance. The researchers found that HPWPs (examples are proper training, meaningful assignments, opportunities to participate in decision making, effective communication, and recognition and feedback) were positively related to intrinsic motivation, which, was positively related to job performance (Wu, Wei, Zhang & Han, 2011). Salmela-Aro, Mutanen and Vuori (2011) found with occupational health professionals, career preparedness (proper trainings that promote career self-efficacy) was related to an increase in intrinsic work-goal motivation. Employee trainings and/or continued professional development can assist employees in gaining the necessary knowledge to continue to perform at high levels in their jobs, thus giving them a feeling of accomplishment and pride which can foster intrinsic motivation. Additionally, Galletta, Portoghese and Battistelli (2011) surveyed 442 nurses and found that intrinsic motivation was negatively related to job turnover signifying more intrinsic motivation can be an indicator of longevity in one's job. Both this study by Galletta, Portoghese and Battistelli (2011) and the study by Salmela-Aro, Mutanen and Vuori (2011) use Deci and Ryan's (1985, 200) Self-Determination Theory that is also being used in the current research study. There is a noticeable similarity between all the definitions of intrinsic motivation across fields (including the current study regarding early childhood education) as well as the use of the Self-Determination Theory in research on intrinsic motivation.

Research for the current study found that Wagner and French (2010) proposed that in "self-determination theory terms" (a theory utilized in the current study), teachers who are satisfied in areas of competence (feel they are capable and effective in working with young

children) and relatedness (confidence in building relationships) have higher levels of intrinsic interest in their work and, therefore, are more drawn to professional growth opportunities. Consequently, one could argue that early childhood educators who do not have feelings of satisfaction with their job performance and abilities to form meaningful relationships may not be as intrinsically motivated, but rather extrinsically motivated (job requirements, etc.), to participate in professional development trainings.

One possible barrier to feelings of competence, relatedness, and autonomy (influencing intrinsic motivation) may be the educator's relationship with the supervisor. Keeping in mind that most family child care providers are their own supervisors, the majority of research regarding supervision focuses on center-based early childhood educators. For center-based educators the literature seems to show a constant theme towards lack of choice and irrelevance of professional development trainings which is influenced by supervisor choices. When supervisors choose professional development trainings for their staff they risk influencing staffs' feelings and motivation towards the training experiences. Wagner and French (2010) found a key issue in motivation to be the degree of choice teachers had in the decision to participate in professional development programs. In this qualitative study teachers expressed professional development as having no impact on their teaching, and the workshops were of no value, other than providing an opportunity to talk with other teachers (Wagner & French, 2010). These teachers' intrinsic motivation for participating in this particular professional development program may have decreased as a result of their experience, while their extrinsic motivation (e.g. job requirement, fear of supervisor disapproval, etc.) served as the primary impetus for attending the trainings. These experiences can affect future interest in professional development, and that the limited literature available suggests that center-based early childhood educators would like to make their

own choices regarding trainings whenever possible, thus increasing their intrinsic motivation to attend.

Using Deci and Ryan's Intrinsic Motivation Inventory, Wagner and French (2010) surveyed 52 early childhood educators regarding their personal interests in professional development. The mean level of intrinsic interest in professional development was 5.46 on a 7-point scale, indicating an average to strong interest in training opportunities. These findings support the current hypothesis that there is a positive relationship between intrinsic motivation and attendance/ participation in professional development. Although this appears to be one of the few studies researching early childhood educators' motivational thoughts, it is an important part of the literature that supports the current study examining relationships between Michigan early childhood educators' motivation and professional development.

Summary

The gaps in the literature concerning professional development and supervisor support, job satisfaction and intrinsic motivation in the diverse population of early childhood education are deep. As previously stated, this may be due to a lack of definition of professional development. This lack of research also may be attributed to the vast amount of focus on elementary and secondary school research wherein early childhood education (especially home/family daycare) has not been studied nearly as much. Professional development opportunities seem to vary in style and location. Many family day care providers prefer more intimate, sharing-based trainings that are specific to the home (not center-based) environment. Center based providers seem to have difficulties with inappropriate or irrelevant trainings in which supervisors chose for them quite often. This may be due to supervisors putting limitations on staffs' abilities to be autonomous regarding making decisions regarding trainings for their

specific classrooms and ages of the children they service. Supervisor support can greatly influence the work climate and feelings of competency and enjoyment in one's job. With out support from supervisors, it may be less likely that an early childhood educator will have the intrinsic motivation to do better at their job or learn new skills through attending professional development. Job satisfaction is influenced by a handful of aspects such as work environment, co-worker relationships, and supervisor support. Due to the little research that is solely based on family child care providers, these factors (work environment, co-worker relations, and supervisor support) may not be determining factors for their job satisfaction. In center-based settings, positive feelings of these factors appears to increase early childhood educators' overall pleasure in their jobs and possibly also internal motivation to continue to gain knowledge in the field of early childhood education. It is the goal of the current study to investigate these facets of early childhood education and discover if new research will be consistent with the past literature presented.

CHAPTER THREE

METHODS

This chapter consists of the following sections: 1) procedures, 2) measures, 3) description of missing data.

Procedures

Participants and data collection methods. Participants for the current study were early childhood educators in the state of Michigan. Recruitment for the study was conducted via email asking participants to answer questions in an online survey. Emails were sent through a listserv provided by numerous early childhood associations including Child Care Network, Michigan Association for the Education of Young Children, Michigan Head Start and Early Head Start offices, and the Michigan Bureau of Children and Adult Licensing. The term "early childhood educators" includes teachers, teacher assistants/aids, day care providers, and assistant providers. Participants did not have to be working full time but were required to be working with children ages zero to five years in a center or home based environment (there was no required minimum number of children participants had to be providing care/education to).

Prior to recruiting participants for the survey approval was attained by the Michigan State University institution review board on research with human subjects. Next, early childhood associations in the state of Michigan were contacted to request permission to use their listserv information to contact participants. An email was sent to individuals on the obtained listservs which included a brief description of the purpose of the study as well as the link to the survey. Prior to posting the survey a small pilot study was conducted to assert face validity of items, actual time of completion, and general thoughts and reactions of early childhood educators.

The survey data was collected via online questionnaire tool http://www.surveymonkey.com/. Once the survey had been accessed, the participant first encountered a page with a short description of the objective of the survey as well as the approximate time it would take to complete the survey. In addition to this information participants were informed of their right to omit answers for questions they were not comfortable answering, the ability to stop participation at any time throughout the survey, and assurance of complete privacy and confidentiality. No identifying information (such as name) was asked, and computer identification numbers (IP address) were not included with the answers to the survey. To obtain a form of written consent of participation in the study, on the first page of the survey there was a box that was required to be checked by the individual that they "agreed to participate in the survey".

Measures

Participants were asked to answer demographic information questions as well as four questionnaires, the Work Climate Questionnaire (Deci and Ryan 2011), the Early Childhood Work Environment Survey-Short Version (Jorde-Bloom, 1985, 1996, 2010), the Basic Need Satisfaction at Work Scale (a subscale of Deci and Ryan's Basic Psychological Needs Scale, 2011), and a subscale of the Intrinsic Motivation Inventory (Ryan 1982); the Activity Perception Questionnaire. A brief pilot of the study found the survey took approximately ten to twenty minutes to complete.

Participants and demographic information. The final sample totaled 498 participants. There were 486 female participants and 3 male participants. Age of participants (n=431) ranged from 18 to 72 years old with a mean age of 42.9 years (SD = 10.87). Total years in the field of early childhood education (n =484) ranged from 1 to 40 years with a mean time in the field of

14.69 years (*SD* =8.81). Participants (*n* =445) were in their current position for an average of 9.45 years (*SD* = 8.65, Min = 0, Max =39.33). Approximately 413 participants (82.9%) were employed full time and 77 participants were employed part time (15.5%), (*n* =490). Participants varied in education level, as well as job title and work environment (See Table 1). Teachers who were also directors of the program they worked in accounted for 4.8% (*n*=24). Participants (*n* = 393) also worked with children of different age groups and combinations of age groups (See Table 3). Total professional development hours (*n* =486) were calculated with a range from 0-161.5 hours, a mean of 23.77 hours (*SD* = 22.15).

Some professional development training that were available this past year were the Michigan Association for the Education of Young Children Infant-Toddler conference, *Early On* Annual conference, Annual Parenting Awareness (PAM) Michigan Conference, Michigan Collaborative Early Childhood Conference, Great Start Collaborative Conference, Michigan Association for the Education of Young Children Early Childhood Conference, Building on Behalf of Children Conference- Child Care Network, and the Michigan Head Start Association Annual Early Childhood Training Conference (a comprehensive list is included in the study). Other professional development opportunities not included in this list are various college classes, webinars, and specialized trainings provided by specific center based schools, daycares, etc. Respondents were asked to identify the number of professional development training hours completed in the last year and the number of trainings attended. Respondents were informed that a full day of training will be considered 5 or more hours, half-day training will be categorized as 3 hours, and one session of a conference is considered 1.5 hours. All figures are standard for early childhood conferences in the state of Michigan.

Work Climate Questionnaire. The Work Climate Questionnaire (Deci and Ryan 2011) is a 15-item, self-reported instrument measuring individuals' experiences with their manager or immediate supervisor. According to Deci and Ryan (2011) the questions are stated with respect to the autonomy support in general of the managers of that organization. Participants in this study who were considered their "own boss" did not answer this questionnaire. Participants responded to statements based on a 7-point Likert scale with (1) meaning "strongly disagree" and (7) meaning "strongly agree". Statements addressed issues such as how the manager understands the individual, affirms confidence in the individual's work, accepts the individual, offers the individual choices and options, shows encouragement, and listening skills. Some examples of items from the questionnaire are: "I feel that my supervisor provides me choices and options", "I feel that my supervisor cares about me as a person", and "My supervisor conveys confidence in my ability to do well at my job". According to the questionnaire, specific items were required to be reverse-coded in order to calculate the correct mean score. In the current study higher mean scores represented a higher level of perceived supervisor support. Cronbach's alpha for this measure was .97.

Early Childhood Work Environment Survey. Jorde-Bloom's (1985, 1996, 2010) Early Childhood Work Environment Survey- Short Version is a self-reported instrument that measures how the individual feels about the early childhood environment that they work in. This 20 item questionnaire asks respondents to rate on a 6-point Likert scale, (0) being "never" and (5) being "always", how they feel about each statement. Statements range from topics related to staff relationships and contributions to the environment, supervisor support and competence, time management, job responsibilities and benefits, and the environment itself. For instance, "Staff are encouraged to learn new skills and competencies", "Teachers help make decisions about

things that directly affect them", and "The work environment is attractive and well organized". Cronbach's alpha for this survey was .97. Mean scores were calculated, with higher mean scores indicating greater satisfaction of the early childhood work environment.

Basic Need Satisfaction at Work Scale. The Basic Need Satisfaction at Work Scale (a subscale of Deci and Ryan's Basic Psychological Needs Scale, 2011) addressed the individual's sense of autonomy, competence, and relatedness in the work environment. The self-reported instrument used statements to measure the respondent's opinions regarding specific examples of the work environment such as "I get along with the people I work with", " I do not feel very competent at work", "Most days I feel a sense of accomplishment from working", and "There is not much opportunity for me to decide for myself how to go about my work". In the current study Cronbach's alpha for this scale was .86. The statements were measured using a 7-point Likert scale in which (1) is "not true at all" (e.g. does not agree with the statement) and a (7) being "very true" (e.g. in much agreement with the statement). Specific items for the scale were required to be reverse-coded prior to computation. Mean scores were calculated, higher mean scores indicated greater job satisfaction and lower mean scores indicated less job satisfaction. . Alpha coefficients for the Early Childhood Work Environment Survey and the Basic Need Satisfaction at Work Scale were similar, $\alpha = .97$ and .86, and were on a 6 and 7 point Likert scale, respectively. The two subscales were correlated, $r = .642$, and both were being used to determine job satisfaction. Thus, due to the similarity in the two measures, including the similarities in scoring scales, they were combined and the mean score of the combined scales was used in the analysis to present overall job satisfaction to result in a more parsimonious model. Had the scoring scales been different, the two mean scores would have been standardized

and then combined. However, this step was unnecessary given the high degree of similarity in the two job satisfaction subscales.

Activity Perception Questionnaire. The Activity Perception Questionnaire is a 25-item subscale of the Intrinsic Motivation Inventory (Ryan 1982) that is a self-reported instrument intended to assess participants' subjective experience related to a target activity (Intrinsic Motivation Inventory [IMI], 2011). The questions in the scale were structured to include the words "professional development" instead of the generic word "activity" so the participant would have no confusion on what the questionnaire was referring to. For example, a nonspecific statement from the scale; "I enjoy doing this activity very much" was modified to read "I enjoy professional development very much". According to Ryan (1982), slightly modifying statements to fit specific activities does not affect the reliability or validity of the scale. This survey addressed feelings towards participation in professional development trainings where the respondent rated their opinion on a 7-point Likert scale in which a (1) signified the statement was "not true at all", and ranged up to a (7) which signified the statement is "very true". Items in the questionnaire include statements such as "I believe I have some choice about participating in professional development", "I participate in professional development because I want to", "I think professional development is a very boring activity", and "I believe participating in professional development could be somewhat beneficial for me". Cronbach's alpha for the questionnaire in the current study was .94. Specific items for the scale were required to be reverse-coded prior to computation. A mean score for the scale was calculated, with higher mean scores showing more interest, enjoyment, sense of value and usefulness in professional development indicating a stronger feeling of intrinsic motivation towards participating in professional development.

Hypotheses. The following hypotheses were addressed in the current study.

H_{01}: There is no relationship between perceived supervisor support and participation in professional development.

H_{a1}: There is a positive relationship between perceived supervisor support and participation in professional development.

H_{02}: There is no relationship between job satisfaction and participation in professional development.

H_{a2}: There is a positive relationship between job satisfaction and participation in professional development.

H_{03}: There is no relationship between intrinsic motivation and participation in professional development.

H_{a3}: There is a positive relationship between intrinsic motivation and participation in professional development.

Missing Data

Overview of data imputation. Missing data in the included sample were imputed prior to analyses using the Expectation Maximization (EM) algorithm (Dempster, Laird & Rubin, 1977) via SPSS 19. The EM method implements a Maximum Likelihood (ML) approach to iteratively impute missing values by using two steps in each iteration: an Expectation-step and a Maximization-step. Per recommendations by Enders (2010) all appropriate variables were used to inform the imputation, included auxiliary variables- those variables that are most likely to be related to missingness. In the case of the current study, variables such as program type, job type, participant age, employment status, and years of education were key auxiliary variables given their known relation to missingness.

Description of missing data. In the current data set, missing values appeared on more than one variable. Of the 498 cases the following descriptive statistics were missing some cases: 6 cases (1.2%) were missing for job title, 15 cases (3%) for total years in the field of early childhood education, 53 cases (10.6%) for years in their current position, 8 cases (1.6%) for type of program, and 7 cases (1.4%) for level of education. For each of the subscales, out of 498 cases, 79 cases (33.2%) were missing for the Work Climate Questionnaire (measuring supervisor support), 164 cases (32.9%) were missing for the Early Childhood Work Environment Survey (measuring job satisfaction), 107 cases (21.5%) were missing for the Basic Need Satisfaction at Work Scale (measuring job satisfaction) and 89 cases (17.9%) were missing for the Activity Perception Questionnaire (Intrinsic Motivation Inventory).

Patterns of missingness. Participants with higher education were more likely to answer all four questionnaires ($p < .05$). Additionally, lead teachers in center based classrooms were more likely to answer all four questionnaires compared to family/home providers; 85% of lead teachers answered the Work Climate Questionnaire, 88.1% answered the Early Childhood Work Environment Survey, 90.4% answered the Basic Needs at Work Survey, and 87.6% of lead teachers answered the Intrinsic Motivation Inventory. Participants who answered one questionnaire were more likely to answer the rest of the questionnaires than not ($p < .001$).

Work environment. Specifically, participants who answered the work environment subscale had significantly higher education, F (1, 498) = 33.92, p = .001 and had worked longer in the field, F (1, 492) = 7.85, p = .005 as compared to those with missing data. Participants with data were more likely to work in childcare centers, χ^2 (4) = 94.83, p = .001, and were more likely to be currently employed full time, χ^2 (1) = 4.98, p = .001.

***Basic needs at work*.** Participants who completed the basic needs at work subscale also had significantly higher education, F (1, 49) = 23.65, p = .000, and they were more likely to be employed full time, χ^2 (1) = 4.45, p = .002. There were no other significant differences.

***Intrinsic motivation*.** Participants who completed the intrinsic motivation items were significantly older than those who did not, F (1, 429) = 4.516, p = .034, more highly educated, F (1,489) = 5.637, p = .018, and had worked significantly longer in the field, F (1, 481) = 6.82, p = .009. There were no other significant differences.

***Supervisor support*.** There were no differences in participants who were missing supervisor support data and those who were not.

CHAPTER FOUR

RESULTS

Summary of Data Analysis Plan

This chapter reports results after testing the hypotheses proposed in Chapter 1. Descriptive statistics, including skewness and kurtosis, and inferential data analysis were conducted for the current study. First, descriptive statistics were calculated for the demographic information portion of the survey. Correlations among the study variables were also examined. Second, hypotheses were tested using hierarchical multiple regression analysis using SPSS Version 19.0. Total hours of participation in professional development served as the dependent variable. Predictor variables were supervisor support, job satisfaction and intrinsic motivation. First, demographic information was entered including age, education level, and years in the field of early childhood education. Next, job title (family provider in a home based setting, dummy coded), work environment (funded, dummy coded) and age of children with whom one works with (age group 0-12 months or age group 3-5 years, which were dummy coded) were added. The rationale for including dummy coded covariates is addressed below with the summary of preliminary analyses. Finally, each of the three primary predictors were entered separately (in order to ascertain any unique contribution to the model by each predictor) beginning with supervisor support, followed by job satisfaction, and intrinsic motivation. Participants who indicated that they were their own supervisor (n = 260) were not asked to complete the supervisor support scale. To examine relations between job satisfaction, intrinsic motivation, and professional development training hours, a separate model was tested for these cases. The model contained all variables as described above, with the exception of the supervisor support variable.

Preliminary Analyses

Descriptive statistics include means and standard deviations for study measures, and frequencies and percents for demographic information are presented in Table 1 and Table 2 (See appendix). Gender was not included in Table 1 due to the fact that the majority of respondents were women (*n*=486, 97.6%), with a small quantity of male participants(*n*=3, .06%). Dummy codes were created indicating the primary age groups with whom early childhood professionals worked, job title and program type. After examining (Spearman for binary coded variables) correlation results, there were a few significant relations between the age groups (dummy coded) with whom early childhood educators worked and early childhood educators' attained total hours of professional development. Working with infants 0-12 months was positively correlated with training hours (r = .17, p <.001) as was working with children ages three to five years (r = .17, p <.001). Correlations among study measures are reported in Tables 4 and 5 (see Appendix).

As part of preliminary analyses, differences in supervisor support, job satisfaction and intrinsic motivation by program type and job title were examined via ANOVA. The results of the analyses denote a significant difference in scale means (specifically scales for job satisfaction and supervisor support) for job title and program type. With regards to job title, the Basic Needs at Work Scale (measuring job satisfaction) was significantly higher for family providers in home based settings, M = 6.07, SD = .61 as compared to lead teachers in a center based program, M = 5.64, SD = .75, F (4, 493) = 12.38, p <.001. The Early Childhood Work Environment Survey (also measuring job satisfaction), was also significantly higher for family providers in home based settings, M =5.36, SD =.67 as compared to lead teachers in a center based program, M =4.78 , SD =.87, F (4, 493) = 19.38, p <.001. As regards to the Work Climate Questionnaire (measuring supervisor support), family providers in home based settings, M = 3.92, SD =2.64, had significantly lower scores as compared to lead teachers in center based programs M =5.33,

SD =1.45, *F* (3, 155) = 2.65, *p* = .04. Because scores were consistently different for family providers as compared to others, job title (dummy coded) was included as covariate in regression models. Activity Perception Questionnaire (measuring intrinsic motivation) scores were not significantly related to job title, *p* = .31. Concerning the variable, program type, there were significant differences among scale means. For the Basic Needs at Work Scale, funded programs (both state funded and federally funded) had significantly lower scores, *M* =5.67, *SD* =.72 (state funded) , *M* = 5.36, *SD* = .69 (federally funded), as compared to home based settings, *M* = 6.05 , *SD* = .62, *F* (3, 494) = 17.50, *p* <.001. With regards to the Early Childhood Work Environment Survey, funded programs (both state funded and federally funded) had significantly lower scores, *M* = 4.55, *SD* = .97 (state funded), *M* = 4.56, *SD* = .82 (federally funded), as compared to home based settings, *M* = 5.35, *SD* = .65, *F* (3, 494) = 30.63, *p* <.001. Based on the significant differences and correlations found for primary age groups with whom early childhood professionals worked (working with ages 0 to 3 years or not and working with ages 3 to five years or not), job title (family provider in a home based setting or not) and program type (funded program or not), four dummy coded variables were included in the regression models.

Correlations for Study Variables

In both hierarchical regression analyses, some demographic information was moderately to highly correlated with the subscales. Also in both hierarchical regression analyses, job satisfaction subscales and intrinsic motivation scale were highly correlated. In the first hierarchical regression analysis, (which included data only from participants who had an immediate supervisor), the supervisor support scale was moderately correlated with intrinsic motivation scale and highly correlated with job satisfaction subscales. All correlations for study variables can be found in table 4 and table 5 (see appendix).

Hierarchical Multiple Regression

The results for testing the three hypotheses will be presented separately in two sections; analyses conducted for respondents who were not their own supervisors and analyses conducted for all respondents (omitting the Work Climate Questionnaire which measured supervisor support). Results are also presented in Table 6.1, 6.2, and Table 7 (see appendix).

Hierarchical regression including supervisor support independent variable. This analysis includes 159 of the 498 total participants. Only those who had an immediate supervisor were asked to answer the Work Climate Questionnaire, which measures supervisor support and is included in this hierarchical regression. These analyses did not include early childhood educators who were also directors (or their own supervisor, for example, family providers in home based settings) as they were not asked to complete supervisor support items on themselves.

Model 1. As noted, demographic information only (age, education, and years working in the field of early childhood education) was entered in the first regression model; the dependent variable was total hours of professional development. This model was not statistically significant, F (3, 155)=.700, p=.553, and accounted for 1.3% of the variance in total hours of professional development.

Model 2. Model 2 included two steps. In Step 1 demographic information (from Model 1) were entered and in Step 2 control variables; job title (*family provider in a home based setting*), type of program (*funded* or non-funded), and specific age groups (found to be significant in the initial spearman correlations: *work with 0-12 months* or *work with 3-5 years*) were added (dummy coded). Total professional development hours was the dependent variable. Model 2 was statistically significant, F (7, 151)= 2.776, p =.01 and accounted for 11.4% of the

variance of total professional development hours. However, working with age group 0-12 months was the only variable significantly related to the dependent variable in the model, (β =.25, *p*=.003) (see Table 6.1).

Model 3. Model 3 tested hypothesis 1 and consisted of three steps with total professional development hours as the dependent variable. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2 and in Step 3 supervisor support was added as a main predictor. Model 3 was statistically significant, *F* (8, 150) = 2.961, *p* =.004, and accounted for 13.6% of the variance in total professional development hours. Work with age group 0-12 months (β =.24, *p* =.003) and funded program (β = .18, *p* = .046) was positively related to total professional development hours. Supervisor support approached significance (β = .15, *p*=.05), (see Table 6.1). Thus, Hypothesis 1 was marginally supported.

Model 4. The fourth regression model tested hypothesis 2 and also included total professional development hours as the dependent variable. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2. In Step 3 supervisor support was included, and in Step 4 job satisfaction (Early Childhood Work Environment Survey and Basic Needs Survey combined for an overall job satisfaction score) was added as a main predictor variable. Model 4 was statistically significant, *F* (9, 149) = 2.706, *p* = .006, and accounted for 14% of the variance of total professional development hours. Again, work with age group 0-12 months (β = .24, *p*=.003) and funded program (β = .19, *p*= .039) were positively related to total professional development hours. Job satisfaction (β = .09, *p*=.401) was

not significantly associated with the dependent variable (see Table6.2). Thus, Hypothesis 2 was not supported.

Model 5. Model 5 tested Hypothesis 3 and included total professional development hours as the dependent variable. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2. In Step 3 supervisor support was included, and in Step 4 job satisfaction added. Intrinsic motivation was added as the main predictor variable in Step 5. Model 5 was statistically significant, F (10, 148) = 2.521, p = .008 and accounted for 14.6% of the variance in total professional development hours. Once more, work with age group 0-12 months (β = .23, p=.006) and funded program (β = .18, p= .047) were positively related to total professional development hours. Intrinsic motivation (β = .08, p= .350), however, was not significantly associated with the dependent variable (See Table 6.2). Thus, Hypothesis 3 was not supported. At this final step all primary predictor variables remained insignificant.

Hierarchical regression with removal of supervisor support.

Model 1. Model 1 consisted of demographic information only (age, education, and years working in the field of early childhood education), the dependent variable was total hours of professional development. Model 1 was statistically significant, F (3, 494)=6.387, p<.001, and accounted for 3.7% of the variance in total hours of professional development. Education (β =.18, p<.001) was positively related to the dependent variable (See Table 7).

Model 2. Model 2 included two steps with a dependent variable of total professional development hours. In Step 1 demographic information was entered and in Step 2 control variables; family provider in a home based setting, funded program, work with 0-12

months and work with 3-5 years were added (dummy coded). Model 2 was statistically significant, F (7, 490)= 11.942, p<.001 and accounted for 14.6% of the variance of total professional development hours. Work with 0-12 months (β =.15, p=.001) and funded program (β =.20, p<.001) were positively associated with the dependent variable. On the other hand, family provider in a home based setting (β = -.21, p=.001) was negatively related to total professional development hours (See Table 7).

Model 3. Model 3 tested Hypothesis 2 and includes total professional development hours as the dependent variable. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2 and in Step 3 job satisfaction was added as a main predictor. Model 3 was statistically significant, F (8, 489)=10.522, p<.001 and accounted for 14.7% of the variance in total professional development hours. For a second time, work with age group 0-12 months (β =.15, p<.001) and funded program (β =.20, p<.001) were positively related to the dependent variable and family provider in a home based setting (β = -.22, p=.001) was negatively related to the dependent variable. Job satisfaction (β =.04, p=.423) was not significantly associated with total professional development hours (See Table 7). Thus, Hypothesis 2 was not supported.

Model 4. The fourth model also included total professional development hours as the dependent variable and tested Hypothesis 3. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2. In Step 3 job satisfaction was included, and in Step 4 intrinsic motivation was added as the main predictor variable. Model 4 was statistically significant, F (9, 488)=11.204, p<.001 and accounted for

17.1% of the variance in total professional development hours. Years working in the field of early childhood education (β =.14, *p*=.025), work with age group 0-12 months (β =.14, *p*=.002) and funded program (β =.19, *p*<.001) were all positively related to the dependent variable. Family provider in a home based program (β = -.21, *p*=.001) was negatively associated with total professional development hours. Intrinsic motivation, (β=.16, *p*<.001) was positively associated with the dependent variable, thus, supporting Hypothesis 3 (See Table 7).

Post Hoc Analyses

To further explore the relationship between intrinsic motivation and total professional development hours found in the second hierarchical regression, additional analyses were conducted. This hierarchical regression analyses contained information from only those who denoted that they were their own supervisor.

Model 1. Model 1 consisted of demographic information only (age, education, and years working in the field of early childhood education), the dependent variable was total hours of professional development. Model 1 was statistically significant, F (3, 261) = 4.711, p = .003, and accounted for 5.1% of the variance in total hours of professional development. Education (β =.15, p = .013) was positively related to the dependent variable (See Table 10).

Model 2. Model 2 included two steps with a dependent variable of total professional development hours. In Step 1 demographic information was entered and in Step 2 control variables; family provider in a home based setting, funded program, work with 0-12 months and work with 3-5 years were added (dummy coded). Model 2 was statistically significant, F (7, 257)= 5.695, p<.001 and accounted for 13.4% of the variance of total professional development hours. Funded program (β =.22, p =.001) was positively associated

with the dependent variable. On the other hand, family provider in a home based setting (β = -.16, *p*=.043) was negatively related to total professional development hours (See Table 10).

Model 3. Model 3 tested Hypothesis 2 and includes total professional development hours as the dependent variable. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2 and in Step 3 job satisfaction was added as a main predictor. Model 3 was statistically significant, F (8, 256) = 5.028, p<.001 and accounted for 13.6% of the variance in total professional development hours. For a second time, funded program (β =.22, p =.001) was positively related to the dependent variable and family provider in a home based setting (β = -.17, p =.039) was negatively related to the dependent variable. Job satisfaction (β =.04, p=.502) was not significantly associated with total professional development hours (See Table 10). Thus, Hypothesis 2 was not supported.

Model 4. The fourth model also included total professional development hours as the dependent variable and tested Hypothesis 3. Age, education, and years in the field were included in Step 1. Family provider in a home based setting, funded program, work with age group 0-12 months and work with age group 3-5 years were added in Step 2. In Step 3 job satisfaction was included, and in Step 4 intrinsic motivation was added as the main predictor variable. Model 4 was statistically significant, F (9, 255) = 6.757, p<.001 and accounted for 19.3% of the variance in total professional development hours. Family provider in a home based program (β = -.18, p=.026) was negatively associated with total professional development hours. Funded program (β =.20, p =.002) was positively related to the dependent variable. Intrinsic motivation, (β=.25, p<.001) was also positively associated with the dependent variable, thus, supporting Hypothesis 3 (See Table 10).

CHAPTER FIVE

DISCUSSION AND CONCLUSION

Discussion

This study examined supervisor support, job satisfaction and intrinsic motivation and the relationship as they related to total professional development hours attained by early childhood educators. Wagner and French (2010) suggest that early childhood educators' perceptions of their work surroundings and relationships can influence their intrinsic motivation for professional development. The results of the current study indicate that total professional development hours are not related to supervisor support or job satisfaction. Intrinsic motivation was significantly related to total professional development hours of early childhood educators, in the second hierarchical regression which included scales answered by all participants. Hypothesis 3 will be discussed first, then hypotheses 1 & 2, and finally any significant findings found between demographic/covariate information and professional development. Strengths, limitations, and implications for the study will also be addressed.

Hypothesis 3 assessed the relationship between early childhood educators' intrinsic motivation and participation in professional development. Hypothesis 3 was not supported by Models 1-5 in the first hierarchical regression nor was it supported by Models 1-3 in the second hierarchical regression (See Chapter 4). Hypothesis 3 was supported by Model 4 in the second hierarchical regression analysis (which consisted of removal of the independent variable, supervisor support). In the 2nd regression analysis, Model 4 was statistically significant and accounted for 17.1% of the variance in total professional development hours producing a medium effect size. Model 4 shows a significant positive relationship between intrinsic motivation and total professional development hours. This is consistent with previous research

regarding educators' intrinsic motivation towards professional development (Wagner & French, 2010). There was no significant relationship found between supervisor support or job satisfaction and total professional development hours in either regression analyses which does not confirm Hypothesis 1 or 2, nor confirm prior research. One possible explanation for this finding is that supervisor support and job satisfaction do not have as much of an affect on participation in professional development as does intrinsic motivation. Another possible theory is that being intrinsically motivated (inherently interested in early childhood development) may be of more importance and in turn have more control over feelings professional development than those perceived feelings of supervisor support and job satisfaction.

To examine hypothesis 3 further, results from a post hoc hierarchical regression indicated there was also a significant, positive relationship between intrinsic motivation and total professional development hours for supervisors only. Many of the participants in the survey were family providers in a home based setting (n = 250). As previously stated, early childhood educators in home based settings are not required to have their home licensed as a day care by the state of Michigan. Thus, these individuals are also not required to complete a minimum of 12 professional development hours a year. These analyses also found a negative relationship between family providers in a home based setting and total hours of professional development. This negative relationship suggests that there may still be barriers to participating in professional development for specifically, providers in home based settings. These providers must be extremely motivated to attend trainings considering many of them may have to provide their own funding as well as close their home to families (in turn, lose a day's pay) so they may attend a professional development training. A small number of participants in these specific analyses

were directors and lead teachers in center based settings and could possibly be responsible for driving up the number of total professional development hours.

Overall, Hypotheses 1 & 2 were not supported by Models 1-5 in the first hierarchical regression utilizing the subsample of participants who had a supervisor, nor Models 1-4 in the second set of hierarchical regressions in which the entire sample was included (both supervisors and non-supervisors) (See Chapter 4). These findings suggest that supervisor support and job satisfaction do not have a considerable affect on an early childhood educator's participation in professional development. One possible explanation for this is that programs funded at the state or federal level as well as any licensed home or private daycare must meet minimum professional development requirements for all employees working with children ages 0-5 years old. Therefore, even if an educator was not satisfied with their support from their supervisor or with their job, those characteristics may not be reflected in total hours of professional development hours considering requirements must be met regardless of educators' personal feelings of the work environment.

Although neither regression shows a relationship between supervisor support or job satisfaction with professional development, there are however bivariate correlations (for both regressions) suggesting positive relationships between job satisfaction and professional development which is supported by prior research. Similar to a study by Dawley, Andrews, and Bucklew (2007), emotional attachment to a job or the children whom one works with may reflect job satisfaction and wishes to continue training for intrinsic reasons; unfortunately, individual emotions relating to job satisfaction were not specifically measured in the current study.

Models 2- 4 in the second regression analysis (as well as Models 3-5 in the first regression) showed a significant positive relationship between working in a funded program and

total hours of professional development. This is consistent with research regarding guidelines for funded programs in Michigan. Funded programs such as Great Start Readiness Program (state funded) and Early Head Start/Head Start (federally funded) require their employees to participate in a minimum number of professional development hours each year (Bureau of Children and Adult Licensing, 2008; Early Childhood Learning & Knowledge Center [ECLKC], 2007; National Child Care Information and Technical Assistance Center, 2011) thus, possibly explaining for the positive relationship between funded programs and total hours of professional development.

Level of education and years working in the field of early childhood education were also positively associated with total hours of professional development (in the second regression, Model 1 and Model 4 respectively), which is partially supported by the literature. Many funded programs have specific education requirements for their employees such as Associate degrees, Child Development Associate degree (CDA), Bachelor's degrees, and sometimes Master's degrees (Michigan Department of Education, 2009; Early Childhood Learning & Knowledge Center [ECLKC], 2007) and as previously stated, these programs have specific requirements for yearly professional development as well. There was a strong correlation between education and funded programs for this regression as well (p <.001). Educators with higher education may be more likely to work in funded programs and, in turn, participate in more professional development trainings each year. Length of time working in the field of early childhood education is a topic that was not explored to a great extent in the literature review. One possible explanation for this relationship could be related to studies by Walker (2002) and Burchinal, Howes, and Kontos (2002) that suggest affiliations with professional child care organizations are associated to higher quality care which is predicted by caregiver education and training. More

years in the field of early childhood education could provide an educator with more knowledge of professional associations/organizations that offer training opportunities (and/or knowledge of where to find trainings) and, in turn, increase total participation hours in professional development.

In Models 2, 3, and 4 of the second regression, working as a family provider in a home based setting was negatively related to total professional development hours. These data are supportive of previous research by Walker (2002) as well as Doherty, Forer, Lero, Goelman, and LaGrange (2006) in that home based/home provider early childhood educators may have a more difficult time accessing professional development trainings due to time constraints (both length of training and time of day), travel time and money. Family/home based providers in this study may face some of these same barriers and consequently may not be able to participate in as many training opportunities as those working in center based programs. It should be noted that in the correlations there was a significant relationship between intrinsic motivation and home based providers therefore proposing that barriers may be more of an indicator of the negative relationship with total professional development hours rather than motivation to attend.

Unexpectedly, there was a positive relationship between working with age group 0-12 months and total hours of professional development in both regression models (Models 2-5 in the first regression and Models 2-4 in the second regression). This specific matter was not researched in the literature review. One possible rationalization for this finding is that early childhood education is still a growing topic. Educators may have a harder time planning meaningful activities for infants and as a result, be more interested in attending workshops and trainings that may lend some ideas for this specific age group.

Strengths

There were various strengths in the current study. First, this study focused on the entire state of Michigan; not just one county or region of the state. Second, the study sought to include early childhood educators from different educational backgrounds, ages, job titles and program types. Less restriction on location, job title and program type allowed for a more expansive examination of early childhood educators in the state of Michigan. The style of the survey (online) was very accessible to many of the participants and allowed for the survey to be open 24 hours a day, continuously, so that respondents may participate at a time that is most convenient for them and their schedules. Lastly, perhaps partially due to the flexibility of the survey, the current study used a large sample size in which minimum requirements for hierarchical regression was met.

Limitations & Implications

While the study discovered some significant information regarding early childhood educators' participation in professional development and associated characteristics, a number of limitations should be noted. First of all, the current study surveyed early childhood educators in the state of Michigan only therefore the study cannot be generalized to all early childhood educators considering requirements for professional development, funded program, and licensing vary in each state. Second, the study discussed the possible relationship between participation in professional development and quality of care, however, quality of care was not assessed thus at the current point this characteristic (quality of care) can only be hypothesized. Participants in the survey who denoted that they were family/home based providers were not asked if they worked in a licensed daycare/program. Given that unlicensed daycares do not have to meet state requirements of yearly minimum professional development hours, the data may be slightly skewed, in particular data for program type and total hours of professional development. Content

of trainings was not examined, consequently specific associations could not be explained (specifically the relationship between work with age group 0-12 months and total professional development hours). Home life of participants was also not considered; meaning that perceived supervisor support and job satisfaction may be misrepresented due to feelings of fulfillment or dissatisfaction at home. Additionally, some early childhood educators may not be able or willing to give any more time to work related trainings due to home/family responsibilities, and as a result, this would account for their low hours in professional development (Townsend, Sheffield, Stadnyk, &Beagan, 2006). Lastly, job commitment was not measured in the survey which may have an effect on how participants answered the questionnaires; new questionnaires may need to be considered so that this factor is incorporated.

Future research may warrant a closer examination of the specifics of trainings. Considering there was not a positive relationship between supervisor support or job satisfaction and total professional development hours, there might be other major factors that influence early childhood educators' participation in trainings. Training styles and content should be examined to discover what types of trainings are most popular, what age groups and topics the trainings focus on, availability of trainings and possible barriers to attending trainings. Motivation to attend and participate in professional development should also be examined in order to better understand early childhood educators' intentions and desired objectives for professional development whether it be to fulfill a state requirement or for personal gain.

Conclusions

Many characteristics can have an effect on an early childhood educators' participation in professional development in the state of Michigan. Findings from the study suggest that characteristics such as education, working in funded programs, and with the age group of 0-12

months were all positively related to total professional development hours. Family providers in a home based setting had a negative relationship with professional development hours. Contrasting two of the hypotheses, supervisor support and job satisfaction were not related to total hours of professional development. On the other hand, there was a significant relationship between intrinsic motivation and total professional development hours.

APPENDIX

Table 1

Description of Sample (n=498)

	Mean (SD)	Range	Min	Max	Frequency	Percent
Age *(n=431)*	42.9(10.87)	54	18	72		
Total Years in the Field of Early Childhood Education *(n=484)*	14.69(8.81)	39	1	40		
Years in Current Position *(n=445)*	9.45(8.65)	39.33	0	39.33		
Current Type of Employment *(n=490)*						
Full Time					413	82.9
Part Time					77	15.5
Level of Education *(n=491)*						
High School Graduate					51	10.2
Some College					105	21.1
CDA (Child Development Associate)					31	6.2
Associates Degree					82	16.5
Bachelor's Degree					150	30.1
Graduate Degree					72	14.5
Current Work Environment *(n=436)*						
Home/Family Daycare					254	51
Private Daycare Center					84	16.9
State Funded Preschool					66	13.3
Federally Funded Program					32	6.4
Job Title *(n=492)*						
Lead Teacher (Center Based)					177	35.5
Assistant Teacher (Center Based)					38	7.6
Family Provider (Home Based)					250	50.2
Assistant Provider (Home Based)					3	.6
Other (Lead Teacher and Director)					24	4.8

Table 2

Age of Whom Respondents Work With (n =393)

Age Group	Frequency	Percent (%)
0-12 months	10	2.0
0-24 months	2	.4
0-36 months	18	3.6
13-24 months	26	5.2
13-36 months	18	3.6
13 months-5 years	19	3.8
13-24 months & 3-5 years	6	1.2
25 months-5 years	20	4.0
3-5 years	201	40.4
0-5 years	73	14.7

Table 3

Description of Subscales and Professional Development Hours

	N	Mean	Standard Deviation	Range	Min	Max
	Unimputed Data					
Work Climate Questionnaire	159	5.41	1.46	5.79	1.21	7.00
Early Childhood Work Environment Survey	334	5.02	.93	5.00	1.00	6.00
Basic Need Satisfaction at Work Scale	391	5.90	.82	4.68	2.32	7.00
Early Childhood & Basic Needs*	405	5.54	.83	4.70	2.30	7.00
Activity Perception Questionnaire	409	5.17	1.17	6.00	1.00	7.00
Total Professional Development Hours	486	23.77	22.15	161.50	0.00	161.50
	Imputed Data					
Work Climate Questionnaire	159	5.34	1.52	5.80	1.20	7.00
Early Childhood Work Environment Survey	498	5.07	.81	5.00	1.00	6.00
Basic Need Satisfaction at Work Scale	498	5.86	.72	4.68	2.32	7.00
Early Childhood & Basic Needs*	498	5.46	.70	4.13	2.38	6.50
Activity Perception Questionnaire	498	5.15	1.07	6.00	1.00	7.00
Total Professional Development Hours	498	25.01	22.20	161.50	0.00	161.50

*Early Childhood Work Environment Survey and Basic Needs Survey combined for an overall Job Satisfaction Score

Table 4

Correlations for Study Variables –Hierarchical Regression 1, Supervisor Support Included

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Total Professional Development Hrs.	1.00										
2. Age	.07	1.00									
3. Highest Level of Education	-.02	-.12	1.00								
4. Years Working in Field	.11	.73***	-.07	1.00							
5. Family Provider in a home based setting	.11	.09	-.36***	.07	1.00						
6. Funded	.04	.00	.44***	-.01	-.38***	1.00					
7. Works with ages 0–12 months	.26***	-.10	-.01	-.03	.02	-.13	1.00				
8. Works with ages 3-5 years	-.14*	.19**	.32***	.13	-.25**	.37***	-.31***	1.00			
9. Supervisor Support	.13	-.02	.02	-.06	-.05	-.07	.04	.06	1.00		
10. Job Satisfaction	.13	-.01	.10	-.03	.05	-.09	.01	.06	.66***	1.00	
11. Intrinsic Motivation	.16*	.03	.06	-.02	.01	.03	.15*	.00	.22**	.35***	1.00

* $p < .05$. ** $p < .01$. *** $p < .001$.

9. Supervisor Support measured using Work Climate Questionnaire

10. Job Satisfaction measured using combined mean of Early Childhood Work Environment Survey and Basic Need Satisfaction at Work Scale

11. Intrinsic Motivation measured using Activity Perception Questionnaire

Table 5

Correlations for Study Variables –Hierarchical Regression 2, Supervisor Support Scale Removed

Variable	1	2	3	4	5	6	7	8	9	10
1. Total Professional Development Hrs.	1.00									
2. Age	.03	1.00								
3. Highest Level of Education	.17***	-.07	1.00							
4. Years Working in Field	.07	.73***	-.06	1.00						
5. Family Provider in a home based setting	-.30***	.07	-.47***	.07	1.00					
6. Funded	.28***	-.07	.39***	-.09*	-.57***	1.00				
7. Works with ages 0–12 months	.17***	-.03	.06	.00	-.07*	-.04	1.00			
8. Works with ages 3-5 years	.17***	.07	.41***	.02	-.63***	.50***	-.12**	1.00		
9. Job Satisfaction	-.10*	.05	-.11**	.03	.34***	-.30***	-.05	-.21***	1.00	
10. Intrinsic Motivation	.19***	-.04	.10*	-.09*	-.08*	.08*	.08*	.09*	.21***	1.00

* $p < .05$. ** $p < .01$. *** $p < .001$.

10. Job Satisfaction measured using combined mean of Early Childhood Work Environment Survey and Basic Need Satisfaction at Work Scale

11. Intrinsic Motivation measured using Activity Perception Questionnaire

Table 6

Summary of 1st Hierarchical Regression Analyses for Variables Predicting Total Professional Development Hours (Models 1-3)

		Model 1			Model 2			Model 3		
		B	*SEB*	*β*	*B*	*SEB*	*β*	*B*	*SEB*	*β*
Step 1										
	Age	-.05	.27	-.02	.08	.27	.03	.06	.26	.03
	Education	-.27	1.67	-.01	.09	1.89	.01	.04	1.87	.00
	Years in the Field	.41	.37	.13	.33	.36	.10	.38	.36	.12
Step 2										
	Family Provider				10.09	6.96	.13	10.89	6.90	.13
	Funded				8.77	4.9	.16	9.85	4.38	.18*
	Work w/ ages 0-12 months				35.01	11.45	.29**	33.81	11.36	.24**
	Work w/ ages 3-5 years				-6.56	5.33	-.11	-7.52	5.31	-.13
Step 3										
	Supervisor Support							2.70	1.37	.15
Step 4										
	Job Satisfaction									
Step 5										
	Intrinsic Motivation									
	R^2		.01			.11			.14	
	F for Change in R^2		.70			4.29**			3.89*	

* $p < .05$ ** $p < .01$. *** $p < .001$.

Table 6 (cont'd)

Summary of 1st Hierarchical Regression Analyses for Variables Predicting Total Professional Development Hours (Models 4 & 5)

		Model 4			Model 5		
		B	*SEB*	*β*	*B*	*SEB*	*β*
Step 1							
	Age	.06	.26	.03	.04	.26	.02
	Education	-.26	1.90	-.01	-.25	1.90	-.01
	Years in the Field	.38	.36	.12	.39	.36	.12
Step 2							
	Family Provider	10.09	6.97	.13	10.01	6.98	.12
	Funded	10.23	4.91	.19*	9.86	4.93	.18*
	Work w/ ages 0-12 months	34.08	11.37	.24**	32.32	11.53	.23**
	Work w/ ages 3-5 years	-7.62	5.31	-.13	-7.58	5.32	-.13
Step 3							
	Supervisor Support	1.68	1.83	.09	1.72	1.83	.10
Step 4							
	Job Satisfaction	2.96	3.52	.09	1.98	3.68	.06
Step 5							
	Intrinsic Motivation				2.16	2.30	.08
	R^2		.14			.15	
	F for Change in R^2		.71			.88	

* $p < .05$ ** $p < .01$. *** $p < .001$.

Table 7

Summary of 2nd Hierarchical Regression Analyses for Variables Predicting Total Professional Development Hours (Models 1-4)

		Model 1			Model 2			Model 3			Model 4		
		B	*SEB*	*β*	*B*	*SEB*	*β*	*B*	*SEB*	*β*	*B*	*SEB*	*β*
Step 1	Age	-.06	.13	-.03	-.03	.13	-.01	-.03	.13	-.02	-.05	.13	-.02
	Education	2.41	-.60	18***	.19	.66	.01	.14	.66	.01	.06	.65	.00
	Years in the Field	.26	.16	.10	.29	.15	.11	.29	.15	.12	.34	.15	.14*
Step 2	Family Provider				-9.24	2.71	-.21**	-9.72	2.78	-.22**	-9.34	2.74	-2.09**
	Funded				10.92	2.91	.20***	11.27	2.95	.20***	10.51	2.92	.19***
	Work w/ ages 0-12 months				23.73	6.81	.15**	23.93	6.81	.15***	21.41	6.76	.14**
	Work w/ ages 3-5 years				-2.02	2.60	-.05	-2.05	2.61	-.05	-2.55	2.57	-.06
Step 3	Job Satisfaction							1.16	1.44	.04	-.30	1.47	-.01
Step 4	Intrinsic Motivation										3.42	.90	.16***
	R^2		.37			.15			.15			.17	
	F for Change in R^2		6.39***			15.54***			.64			14.36***	

* $p < .05$ ** $p < .01$. *** $p < .001$.

Table 8

Michigan Infant and Early Childhood Conferences 2010-2011

Date	**Year**	**City**	**Conference**
Aug 10	2010	Southfield	MiAEYC Kindergarten Institute
Sept 16	2010	Detroit	MiAEYC Infant-Toddler Conference
Oct 18-19	2010	Plymouth	Child Abuse & Neglect Conference: Prevention, Assessment, & Treatment
Oct 20	2010	Marquette	Annual Parenting Awareness (PAM) Michigan Conference
Oct 21-22	2010	East Lansing	2010 *Early On* Annual Conference and Faculty Colloquium
Oct 21	2010	Sterling Heights	Michigan After-School Collaborative Conference
Oct 27-28	2010	Bay City	Michigan's Premier Public Health Conference
Nov 19	2010	East Lansing	Annual Parenting Awareness (PAM) Michigan Conference
Dec	2010		Early Childhood Challenge-Early Childhood Investment Corporation
Jan 26-28	2011	Dearborn	Michigan Collaborative Early Childhood Conference
Feb	2011		Annual Fatherhood Conference: Michigan Fatherhood Coalition
Feb 25	2011		Michigan Early Hearing Detection & Intervention (EHDI) Conference

Table 8 (cont'd)

Michigan Infant and Early Childhood Conferences 2010-2011(continued)

Date	**Year**	**City**	**Conference**
Mar 1	2011		MiAEYC Administrator Institute
Mar 31-Apr 2	2011	Grand Rapids	MiAEYC Early Childhood Conference
Apr 15-16	2011		Great Start Collaborative Conference (by invitation)
Apr	2011		Making Inclusion Work with Transdisciplinary Teaming
Apr 19-20	2011		WIC Annual Conference
Apr	2011		Michigan Head Start Association Annual Early Childhood Training Conference
Apr 29	2011	Mt. Pleasant	MiDED (Division for Early Childhood) Conference
May 15-17	2011	Ann Arbor	Michigan Association for Infant Mental Health Biennial Conference
May	2011	Lansing	Star Power Rally- Early Childhood Investment Corporation
Jun	2011		Michigan Healthy Mothers, Healthy Babies Conference
Oct	2011	Dearborn	MiAEYC Infant-Toddler Conference
Nov 3-4	2011	Acme	*Early On* Annual Conference and Faculty Colloquium

Source: Michigan Infant and Early Childhood Conference Calendar Collaborative

Table 9

Correlations for Study Variables –Post Hoc Analyses, Hierarchical Regression (Supervisor Data Only)

Variable	1	2	3	4	5	6	7	8	9	10
1. Total Professional Development Hrs.	1.00									
2. Age	.14*	1.00								
3. Highest Level of Education	.14**	-.04	1.00							
4. Years Working in Field	.17**	.73***	-.03	1.00						
5. Family Provider in a home based setting	-.27***	-.03	-.39***	-.08	1.00					
6. Funded	.28***	-.03	.26***	-.01	-.46***	1.00				
7. Works with ages 0–12 months	.00	.05	.09	.05	-.08	-.03	1.00			
8. Works with ages 3-5 years	.18**	.14*	.36***	.12*	-.61***	.36***	-.08	1.00		
9. Job Satisfaction	-.02	.04	-.07	-.04	.17**	-.15**	-.06	-.12*	1.00	
10. Intrinsic Motivation	.25***	-.06	.09	-.10*	-.04	.08	.03	.08	.21***	1.00

* $p < .05$. ** $p < .01$. *** $p < .001$.

10. Job Satisfaction measured using combined mean of Early Childhood Work Environment Survey and Basic Need Satisfaction at Work Scale

11. Intrinsic Motivation measured using Activity Perception Questionnaire

Table 10

Summary of Post Hoc Hierarchical Regression for Variables Predicting Total Professional Development Hours (Models 1-4)

		Model 1			Model 2			Model 3			Model 4		
		B	*SEB*	*β*	*B*	*SEB*	*β*	*B*	*SEB*	*B*	*B*	*SEB*	*β*
Step 1	Age	.07	.14	-.03	.10	.14	.07	.10	.14	.06	.10	.13	.06
	Education	1.39	.56	.15*	.40	.60	.04	.40	.60	.04	.27	.58	.03
	Years in the Field	.25	.15	.14	.20	.15	.12	.21	.15	.12	.25	.15	.14
Step 2	Family Provider				-6.18	3.03	-.16*	-6.33	3.04	-.17*	-6.59	2.95	-.18*
	Funded				14.71	4.50	.22**	14.97	4.52	.22**	13.65	4.39	.20**
	Work w/ ages 0-12 months				-2.53	7.67	-.02	-2.24	7.69	-.02	-3.82	7.46	-.30
	Work w/ ages 3-5 years				-1.24	2.72	-.04	-1.19	2.73	-.03	-1.96	2.65	-.06
Step 3	Job Satisfaction							1.08	1.61	.04	-.48	1.60	-.02
Step 4	Intrinsic Motivation										3.19	.75	.25***
	R^2		.05			.13			.14			.19	
	F for Change in R^2		4.71**			6.15***			.45			17.93***	

* $p < .05$ ** $p < .01$. *** $p < .001$.

REFERENCES

References

Adanu, T. S. (2006). Continuing professional development (CPD) in state-owned university libraries in Ghana. *Library Management*, 28(6/7), 292-305.

Burchinal, M., Howes, C., & Kontos, S. (2002). Structural predictors of child care quality in child care homes. Early Childhood Research Quarterly, 17, 87-105.

Buysse, V., Winton, P. J. & Rous, B. (2009). Reaching Consensus on a Definition of Professional Development for the Early Childhood Field. *Topics in Early Childhood Special Education*, 28(4), 235-243.

Campbell, P. H. & Sawyer, L. B. (2009). Changing Early Intervention Providers' Home Visiting Skills Through Participation in Professional Development. *Topics in Early Childhood Special Education*, 28(4), 219-234.

Chenot, D., Benton, A. D., & Kim, H. (2009). The Influence of Supervisor Support, Peer Support, and Organizational Culture Among Early Career Social Workers in Child Welfare Services. *Child Welfare Journal*, 88(5), 129-147.

Children's Defense Fund (2011). *Children in Michigan*. Retrieved from http://www.childrensdefense.org/child-research-data-publications/data/state-data-repository/cits/2011/children-in-the-states-2011-michigan.pdf

Dawley, D. D., Andrews, M. C., & Bucklew, N. S. (2008). Mentoring, supervisor support, and perceived organizational support: what matters most? *Leadership & Organization Development Journal*, 29(3), 235-247.

Deci, E. L, Ryan, R. M., Gagne, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Needs Satisfaction, Motivation, and Well-Being in the Work Organizations of a Former Eastern Bloc Country: A Cross Cultural Study of Self-Determination. Personal and Social Psychology Bulletin, 27(8), 930-942.

Dempster, A.P., Laird, N.M., & Rubin, D.B. (1977). Maximum likelihood estimation from incomplete date via the EM algorithm. *Journal of the Royal Statistics Society*, 39(1),1-38.

Doherty, G., Forer, B., Lero, D. S., Goelman, H. & LaGrange, A. (2006). Predictors of quality in family child care. *Early Childhood Research Quarterly*, 21, 296-312.

Early Childhood Learning & Knowledge Center, Early Head Start National Resource Center. (2007). Improving Head Start for School Readiness Act of 2007, Sec. 648A. Staff Qualifications and Development. Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc

Emmerik, I. J., Bakker, A. B., & Euwema, M. C. (2009). Explaining employee's evaluations of organizational change with the job-demands resources model. Career Development International, 14(6), 594-613.

Enders, C. K. (2010). Applied missing data analysis. New York, NY: Guilford.

Gable, S. & Halliburton, A. (2003). Barriers to Child Care Providers' Professional Development. *Child & Youth Care Forum*, 32(3), 175-193.

Gable, S. & Hunting, M. (1999). Community-Based Child Care Provider Training: The Highs and the Lows. *Early Childhood Education Journal*, 27(1), 57-63.

Galletta, M., Portoghese, I., & Battistelli, A. (2011). Intrinsic Motivation, Job Autonomy, and Turnover Intention in the Italian Healthcare: The Mediating Role of Affective Commitment. *Journal of Management Research*, 3(2), 1-19.

Ghazvini, A. & Mullis, R. L. (2002). Center-Based Care for Young Children: Examining Predictors of Quality. The Journal of Genetic Psychology, 163(1), 112-125.

GSGS Interagency Workgroup. (2006). A Guide to Good Start, Grow Smart and Other Federal Early Learning Initiatives. Retrieved from http://www.acf.hhs.gov/programs/occ/initiatives/gsgs/fedpubs/GSGSBooklet.pdf

Hirsch, E., Emerick, S., Church, K., & fuller, E. (2007). Teacher working conditions and student learning conditions: A report on the 2006 North Carolina teacher working conditions survey. Hillborough, NC: Center for Teaching Quality. Retrieved from www.teachingquality.org/pdfs/twcnc2006.pdf

Howes, C., Whiebook, M. & Phillps, D. (1992). Teacher Characteristics and Effective Teaching in Child Care: Findings from the National Child Care Staffing Study. *Child & Youth Care Forum*, 21(6), 399-414.

Jaruszewicz, C. & White, M. (2009). The Teachergarten: Creating an Environment Conducive to Meaningful Teacher Growth. *Early Childhood Education Journal*, 37(3), 171-174.

Jenkins, K. & Hewitt, A. (2010). A Teacher's Vision, A Friendly Teaching Environment That Supports Growth and Learning. *Childhood Education*, 86(5), 316-320.

Jorde-Bloom, P. (1985). Early Childhood Work Environment Survey Short Version. Retrieved from http://cecl.nl.edu/evaluation/resources/ecwes_short.pdf

Jorde-Bloom, P. (1988). Closing the Gap: An Analysis of Teacher and Administrator Perceptions of Organizational Climate in the Early Childhood Setting. *Teaching & Teacher Education*, 4(2), 111-120.

Lanigan, J. D. (2011). Family Child Care Providers' Perspectives Regarding Effective Professional Development and Their Role in the Child Care System: A Qualitative Study. *Early Childhood Education Journal*, 38(6), 399-409.

Lobman, C. & Ryan, S. (2008). Creating an Effective System of Teacher Preparation and Professional Development. *Educational Policy*, 22(4), 515-540.

Markova, G. & Ford, C. (2011). Is money the panacea? Rewards for knowledge workers. *International Journal of Productivity and Performance Management*, 60(8), 813-823.

Michigan Department of Education (2009). *The Great Start Readiness Program At-A-Glance.* Retrieved from http://www.michigan.gov/documents/mde/GSRP_At-a-Glance_294256_7.pdf

Michigan Infant and Early Childhood Conference Calendar Collaborative. (2010-2011). Retrieved from http://www.michigan.gov/documents/Early_Childhood_Conferences_2006_149277_7.pdf

Moye, M. J., Henkin, A. B., & Egley, R. J. (2005) Teacher-principal relationships Exploring linkages between empowerment and interpersonal trust. *Journal of Educational Administration*, 43(3), 260-277.

National Association for the Education of Young Children (n.d.). *What is Professional Development in Early Childhood Education?* Retrieved from http://www.naeuc.org/files/naeyc/What%20Is%20Professional%20Development%20in%20Early%20Childhood%20Education.pdf

National Association of Child Care Resource and Referral Agencies. (2011). 2011 Child Care in the State of Michigan. Retrieved from http://www.naccrra.org/publications/naccrra-publications/publications/SFS-Michigan.pdf

National Child Care Information and Technical Assistance Center (2009). *Good Start Grow Smart History*. Retrieved from http://nccic.acf.hhs.gov/poptopics.gsgs_history.html

National Child Care Information and Technical Assistance Center and the National Association for Regulatory Administration. (2010). The 2008 Child Care Licensing Study, Michigan State Profile. Retrieved from http://www.naralicensing.org/associatons/files/MI_Profile_2008.pdf

National Professional Development Center on Inclusion. (2008). What Do We Mean by Professional Development in the Early Childhood Field? Retrieved from www.fpg.unc.edu/npdci

Neuman, S. B. & Cunningham, L. (2009). The Impact of Professional Development and Coaching on Early Language and Literacy Instructional Practices. *American Educational Research Journal*, 46(2), 532-566.

Onchwari, G. & Jared, K. (2008). The Impact of a Mentor-coaching Model on Teacher Professional Development. *Early Childhood Education Journal*, 36(1), 19-24.

Raikes, H. A., Raikes, H. H., & Wilcox, B. (2005). Regulation, subsidy receipt and provider characteristics: What predicts quality in child care homes?. *Early Childhood Research Quarterly*, 20, 164-184.

Ryan, R. & Deci, E. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25, 54-67.

Salmela-Aro, K., Mutanen, P., & Vuori, J. (2011). Promoting career preparedness and intrinsic work-goal motivation: RCT intervention. *Journal of Vocational Behavior*, 1-9.

Self-Determination Theory. (2011). Retrieved from http://www.psych.rochester.edu/SDT/theory.php

State of Michigan Bureau of Children and Adult Licensing. (2008). Licensing Rules For Child Care Centers. Retrieved from http://www.michigan.gov/documents/dhs/BCAL-PUB-0008_241660_7.pdf

Townsend, E., Sheffield, S. L., Stadnyk, R., & Beagan, B. (2006). Effects of workplace policy on continuing professional development: The case of occupational therapy in Nova Scotia, Canada. *The Canadian Journal of Occupational Therapy*, 73(2), 98-108.

University of Rochester (1996). Basic Psychological Needs Scale. Retrieved from http://www.psych.rochester.edu/SDT/measures/bpns_scale.php

University of Rochester. (1996). Intrinsic Motivation Inventory (IMI). Retrieved from http://www.psych.rochester.edu/SDT/measures/IMI_scales.php

University of Rochester (1996). The Work Climate Questionnaire (WCQ). Retrieved from http://www.psych.rochester.edu/SDT/measures/paswork.php

Wagner, B. D. & French, L. (2010). Motivation, Work Satisfaction, and Teacher Change Among Early Childhood Teachers. *Journal of Research in Childhood Education*, 24, 152-171.

Walker, S. (2002). Predictors of Family Child Care Providers' Intentions Toward Professional Development. *Child & Youth Care Forum*, 31(4), 215-231.

Wu, L., Wei, L., Zhang, Y. & Han, T. (2011). Employee Experienced HPWPs and Job Performance: Roles of Person-Job Fit and Intrinsic Motivation. *Frontiers of Business Research in China*, 5(3), 344-363.