

**Professional Caregiver Mental Health and Well-being:  
Associations with the Early Care and Education Workplace Experience**

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**Abstract**

The child care context has a considerable impact on children's development. However, only recently have we placed focus on the mental health and well-being of the context's professional caregivers -- the millions of individuals who care for these children each day. Particular workplace experiences have been associated with employees' poor mental health and well-being, and perceived discrepancies between an individual's particular behaviors, attitudes, or beliefs have been similarly associated with these issues. This study aimed to examine associations between the professional caregiver workplace experience and caregiver mental health and well-being utilizing theoretical perspectives not often employed within the early care context -- the Job Demand-Control-Support Model, cognitive dissonance theory, and self-discrepancy theory. The results of the study indicated 1) an association between particular combinations of workplace experiences and professional caregiver mental health and well-being, 2) the wide-ranging caregiver perspectives and insights regarding tasks caregivers want to carry out in the classroom (i.e., aspired tasks) and those tasks they feel they have an obligation to carry out (i.e., required tasks), 3) the potential for caregivers to be characterized as experiencing discrepancy in the caregiving context, 4) evidence for the relation between the experience of discrepancy in the classroom and global psychological stress, and 5) the exemplar case conceptualizations that reflect the study design hypothesis overall, providing important information for future inquiries supportive of the work and well-being of professional caregivers.

This research has potential implications for valuable improvements within early care and education practice and policy.

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## Preface

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## **1.0 Introduction**

In 2019, more than 12.5 million children in the United States age 5 and younger (not yet enrolled in kindergarten) were in child care, with 62 percent of those children attending center-based care (Cui & Natzke, 2020). Comparable data from 2016 (i.e., reporting approximately 12.8 million children in child care overall and 59 percent in center-based care) also indicated that those children in center-based care spent an average of 24 hours a week in that type of care (Corcoran & Steinley, 2019; U.S. Department of Education, National Center for Education Statistics, 2016). In considering the amount of time children spend in child care, it has been argued that the child care context and the family context, have the most proximal influence on young children's development, with children spending the majority of their time in these settings (Classens, 2012). The further investigation of the importance of the child care context is crucial, as both theory and empirical study point to its considerable impact on children's development. The impact of early care and education has been shown across developmental domains, and across developmental trajectories (Belsky et al., 2007; Burchinal et al., 2000; NICHD Early Child Care Research Network, 2003; Peisner-Feinberg, et al., 2001; Vandell et al., 2010) -- supporting the case for its vital role in the dialogue of how best to support children's development. We often fail to consider, however, that in order to best support children receiving care, we must support the adults who care for them.

Approximately 2.2 million professional caregivers are tasked with adequately meeting the demands of caring for children (Child Care Aware of America, 2016). In consideration of the mental health and well-being of these professional caregivers, studies show that rates of depression and stress-related issues are far from rare in this workforce. In a study of 1,001

Pennsylvania Head Start teachers, 24% of these caregivers reported clinically significant depressive symptoms (Whitaker, Dearth-Wesley, & Gooze, 2015). A study by Linnen et al. (2017) found an even higher rate of depression within their sample, with 36.1% of professional caregivers reporting scores at or above the criteria for clinical depression. Moreover, in a sample of 2,122 Head Start teachers, Whitaker, Becker, Herman, and Gooze (2013) found that when combined, professional caregivers with an assessment score indicative of depression and those with a diagnosis of depression equaled a similar rate of 37%.

In addition to issues of depression, professional caregiver reports of stress-linked physical health conditions are likewise not uncommon. Within a sample of 2,122 Head Start teachers, a number of individuals reported experiencing severe headache or migraine (32.2%), lower back pain (36.9%), obesity (37.1%), asthma (18.7%), high blood pressure (22.3%), and/or diabetes or prediabetes (11.9%); percentages ranging from 4.1% to 13% *higher* than the national reference sample (Whitaker et al., 2013). Additionally, the percentage reporting *three or more* of these health conditions was 21.8%; a rate 9.2% greater than the national reference sample. The percentage reporting *14 or more* mentally unhealthy days a month was 18%, with those reporting *14 or more* physically unhealthy days a month at 10.1%. It is reports such as these that call attention to the critical need to address professional caregiver mental health and well-being.

These reported rates of professional caregiver mental health issues and detriments to their well-being are not only consequential for the lives of professional caregivers, but additionally, studies have indicated that professional caregivers' mental health and well-being is associated with the quality of care provided in the early care classroom, and even children's development more directly. Buettner, Jeon, Hur, and Garcia (2016) found that early childhood teachers' psychological load (i.e., symptoms of depression, stress, and emotional exhaustion) was

associated with the teachers' likelihood of responding with a negative reaction to children's negative emotions (i.e., a punitive reaction or a minimizing reaction), which would arguably be detrimental to a warm classroom climate and the promotion of children's social-emotional learning skills. When focused on early childhood professionals' depressive symptoms, specifically, an association has been found between teacher depression and 1) less closeness and more conflict within teacher-child relationships (Whitaker et al., 2015), 2) less teacher sensitivity and more withdrawn caregiving (Hamre & Pianta, 2004), and 3) lower ratings of teacher emotional support, classroom organization, and instructional support (Jennings, 2014). Jeon, Buettner, and Snyder (2014) observed, even more broadly, an association between teacher depressive symptoms and the global quality of the child care setting. When focused on early childhood professionals' symptoms of job stress, specifically, Whitaker et al. (2015) found that teachers' workplace stress was associated with increased teacher-child conflict. In addition, Zinsser, Bailey, Curby, Denham, and Bassett (2013) found that teachers with higher levels of stress were less supportive and less consistently supportive with the children in their care. These characteristics of classroom climate, relationship quality, interaction quality, and overall child care quality have been consistently shown to have significant implications for children's development, and children's developmental trajectories over time.

Illustrative of the implications for children's development more directly, Jeon et al. (2014) identified a relation between teacher depressive symptoms and children's behavioral problems, both internalizing and externalizing in nature (directly and also indirectly by way of global quality of care). In a similar vein, Zinsser et al. (2013) identified a relation between private center teachers' (but not Head Start teachers') level of stress and children's social-emotional competence in the classroom. Considering the foundational nature of children's early

development, associations between teacher mental health and well-being and children's emotional and behavioral competence could have lifelong implications for those receiving early care.

Fortunately, recognition has been growing for the need to support professional caregivers' mental health and well-being (supportive of their own life experience, as well as the development of the children in their care), with increased attention in recent years. However, this area has yet to be fully examined with regard to the broader prevalence of issues of mental health and well-being for this workforce, and the potential predictors, influences, or associations with these issues for professional caregivers (Jeon, Buettner, & Grant, 2017). Necessary, then, is further exploration of these issues as they exist within the early care and education setting, with intentions to better understand how professional caregivers perceive and experience their workplace environment.

Evidence exists that particular workplace experiences have significant implications for employee mental health and well-being (e.g., Johnson & Hall, 1988; Johnson, Hall, & Theorell, 1989; Karasek, 1979; Karasek et al., 1998). Additionally, some evidence exists that this holds within the early care and education setting in particular (Whitaker et al., 2015). In order to better understand the inner-workings of the workplace experience of the early care and education classroom (and how this may play a role in professional caregiver mental health and well-being), it is necessary to examine how these caregivers perceive their experience and make sense of their daily job tasks.

The early care and education workplace context provides an environment often ripe with demands and expectations, including the developmental needs of the children, the adherence to standards and regulations, coworker interactions, and parent engagement (among many others).



These demands exist within the context of a particular classroom environment, with each classroom context different than the next, and with each professional caregiver's experience of a particular context quite unique to that individual. It is within these experiences that valuable insight may be garnered, supportive of a better understanding of professional caregiver mental health and well-being.

The prevalence of poor mental health and well-being within the professional caregiving workforce has implications extending even beyond the lives of the early care workforce, to the implementation of care in the classroom and the development of children receiving that care. Provided the considerable implications for the lives of the millions of professional caregivers and the millions of children in their care, exploration of professional caregiver mental health and well-being and its associations can be seen as highly warranted. This study aims to examine associations between the professional caregiver workplace experience and caregiver mental health and well-being utilizing theoretical perspectives not often employed within the early care context (see Table 1), with intentions to bring attention to potentially key features of the early care workplace experience.

**Table 1 Theoretical Foundations and Perspectives**

Theoretical Foundations	Key References	Utility
Bioecological Theory	Bronfenbrenner, 1977	Individuals have unique bioecological experiences that affect their personal value systems; Based on their bioecological experiences, individuals experience (and are affected by) their contexts in a unique way
Job Demand-Control-Support Model	Karasek, 1979 Johnson & Hall, 1988	Within her/his workplace setting, an individual has unique perceptions of demand, control, and support; particular compositions of these characteristics are associated with employee mental health and well-being

Cognitive Dissonance Theory	Festinger, 1957	The relative disconnect between an employee's value system and workplace obligations can be illustrative of cognitive dissonance, which is associated with a state of psychological discomfort; This may be associated with an employee's perception of control
Self-discrepancy Theory	Higgins, 1987	The relative disconnect between an employee's value system and workplace obligations can be illustrative of self-discrepancy, which is associated with specific psychological manifestations -- based on particular characteristics of the discrepancy; This may be associated with an employee's perception of control
Additional Support from Theoretical Perspectives	Key References	Utility
Subjective Perceptions of Quality in ECE	Woodhead, 1998 Tanner et al., 2006	There exists the potential for individuals (e.g., professional caregivers, those who create and enforce standards and regulations) to differ with regard to their perception and value system for what quality means in the early care setting; There exists the potential for a discrepancy between value systems and thus, between the aspired and required work for each professional caregiver.
Multiple Perspectives of Quality in ECE	Katz, 1993 Ceglowski, 2004 Ceglowski & Bacigalupa, 2002	The meaning of quality can vary from one stakeholder group to another, and can also vary within stakeholder group. There exists the potential for a discrepancy between value systems and thus, between the aspired and required work for each professional caregiver.

## 1.1 Theoretical Foundations

### 1.1.1 Bioecological Model

Based on Bronfenbrenner's bioecological model, an individual is influenced by (and influences) a unique set of contexts, with each (and each in combination) contributing to the individual's development (Bronfenbrenner, 1977). Both proximal and distal processes are at

play, with the more proximal processes having more direct influence, and the more distal processes having less direct (but rather important indirect) influence on an individual's development (Bronfenbrenner & Morris, 2006).

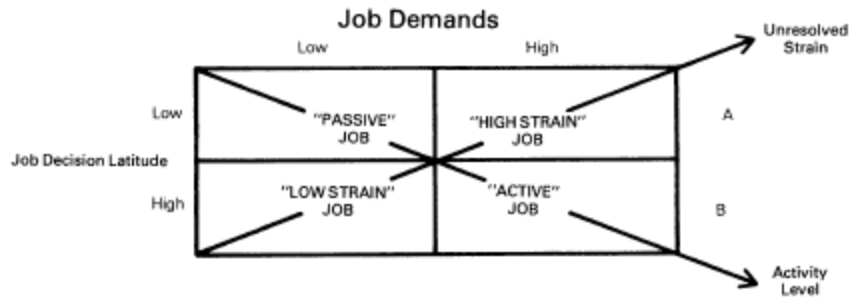
At the center of the bioecological model is the *individual*, made up of that person's unique characteristics. This component of the model is important, because "individual differences in cognition, emotion, personality, and physical attributes interact with environmental influences to shape environment" (Nakkula & Toshalis, 2006, p. 251). The individual exists at the center of the *microsystem*, which is made up of the interactions between the individual and the immediate contexts present on a regular basis (which could include the family, school, and/or work contexts). The *mesosystem* is made up of the interactions between these microsystem contexts, for example, the interaction of home and school contexts or home and work contexts. The next layer within the bioecological model is the *exosystem*, which includes the contexts with indirect influence on the individual, contexts having a direct connection with one of the individual's microsystem contexts (for example, a child's parents' coworkers). The *macrosystem* includes cultural elements of influence, including cultural values. Across all levels exists the *chronosystem*, the historical and temporal component of the model, which includes historical changes. Each of these contexts mutually influences one another and the development of the individual (Bronfenbrenner, 1977).

Bronfenbrenner's bioecological model upholds the idea that *context matters*, including the contexts that have mutually shaped the individual over time, and the contexts that individuals occupy on a regular basis. This theory thus has utility for framing 1) the uniquely developed perspectives of professional caregivers, and 2) the regularly experienced early care and education workplace as a highly influential microsystem context.

### 1.1.2 Job Demand-Control-Support Model

The Job Demand-Control-Support Model (JDCS; Johnson & Hall, 1988) according to Whitaker et al. (2015), “is the most widely studied model of workplace stress” (p.58). This model (originally the Job Demand-Control Model [JDC; Karasek, 1979] with the *support* component added and examined in subsequent work; Johnson & Hall, 1988, Johnson et al., 1989; Van der Doef & Maes, 1999) “describes how high work-place demands, low control, and/or low support raises the risk of negative psychological and physical outcomes that may lead to poor work functioning” (Whitaker et al., 2015, p. 58).

In the original Job Demand-Control model (see Figure 1), Karasek (1979) indicates that “job strain occurs when job demands are high and job decision latitude is low” (p.287). The demand component, according to Karasek (1979) includes “psychological stressors involved in accomplishing the work load, stressors related to unexpected tasks, and stressors of job-related personal conflict” (p.291). Decision latitude is described by Karasek to be job control or discretion. The job strain model proposes that there are four types of jobs based on the level of job demands and the amount of job decision latitude (job control or discretion), including 1) the passive job (low job demands and low job decision latitude), 2) the low strain job (low job demands and high job decision latitude), 3) the high strain job (high job demands and low job decision latitude), and 4) the active job (high job demands and high job decision latitude) (Karasek, 1979).



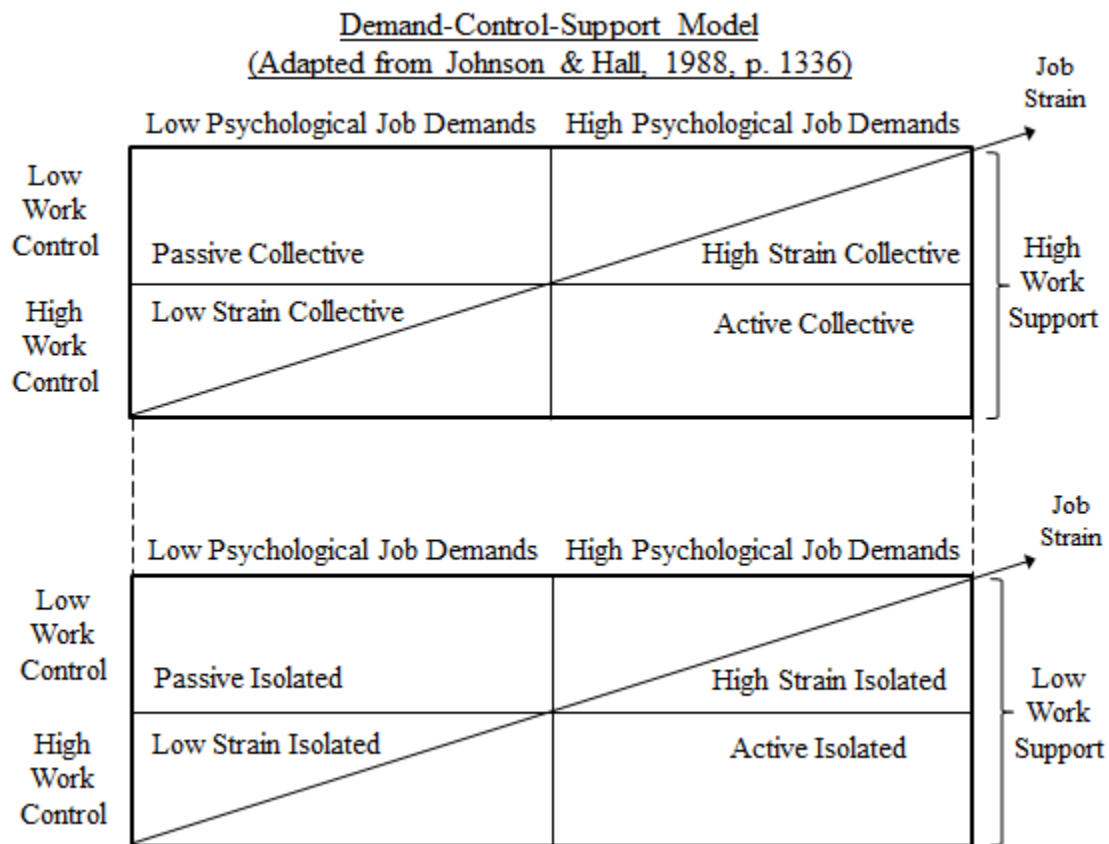
**Figure 1. Job strain model.**

**Figure 1 Job Demand-Control Model (Job Strain Model) (Karasek, 1979, p. 288)**

Examination of this model indicates that using skills to make decisions and exercising judgment in the workplace is not observed as a source of stress, rather it is a source of reduced job strain (Karasek, 1979). Those individuals with high demands and no discretion within their job are most at risk for job strain. Thus, even when job demands are unavoidably high, job strain could be reduced by increasing decision latitude; a potential buffering mechanism of job strain in the workplace (Karasek, 1979).

The Job Demand-Control-Support Model (JDCS; Johnson & Hall, 1988) additionally includes the component of work-related *social support* (see Figure 2), with the consideration that social support has been shown to buffer psychological demands within and external to the workplace. Social support within this model is defined as the “opportunity to interact at work and if co-worker interaction is carried over into nonwork life,” an arguably broad definition of social support (Johnson & Hall, 1988, p.1337). This model details the *control* component beyond that of Karasek’s (1979) conceptualization (which describes the focal construct *decision latitude* in terms of job control or discretion)), in that the construct of *control* itself is of focus and is made up of features termed *skill discretion* and *decision authority*. Skill discretion is described as the degree to which individuals are able to use their skills and abilities in the workplace, with

decision authority deemed the degree to which individuals “have a say in how they approach tasks at work” (Whitaker et al., 2015, p. 58).



**Figure 2 Demand-Control-Support Model (Adapted from Johnson & Hall, 1988, p. 1336)**

This model adds a dimension upon Karasek’s (1979) original model, adding the layer of work-related social support (high or low), and adjusts and details the conceptualization of the *control* component. Each of Karasek’s original job types (the active job, the low strain job, the high strain job, the passive job) are separated into two levels within the augmented model, with the added distinction of *isolation* (i.e., low support) and *collective* (i.e., high support) for each. This support component (along with control) is indicated within the model as a potential buffering mechanism for the effects of workplace demand on employee health.

The demand-control (-support) model contends that workplace characteristics and employee experience of those characteristics matter, with implications for the health of the workforce. This theory thus has utility for framing pertinent workplace characteristics as they exist within the early care and education context specifically, and the potential health/mental health implications for professional caregivers who experience these workplace characteristics regularly.

#### **1.1.2.1 Considering the Component of Control**

Indicated within this model is the implication that control and social support are potential buffering mechanisms of a demanding workplace environment. It is possible, however, that within at least some highly demanding jobs, an employee's workplace social support cannot be augmented enough to sufficiently buffer the level of demand. It is in this case that we must hone in on the component of *control*. According to Rothbaum, Weisz, and Snyder (1982), "people attempt to gain control not only by bringing the environment into line with their wishes (primary control) but also by bringing themselves into line with environmental forces (secondary control)" (p.5). Thus, in the case that the environment cannot be changed (i.e., demand cannot be lessened and social support cannot be sufficiently augmented) an employee could put stake in the other potential buffering mechanism, *control*.

Here, we consider a novel perspective of this component of control. An employee's perceived level of control could be illustrative of a relative disconnect (or relative congruence) between that employee's intended behavior if she would have control, and her behavior when she lacks (or does, indeed, have) the ability to carry out that intended behavior. Thus, if an individual feels she has a high level of control in the workplace, this would be illustrative of congruence between her intentions and behaviors (i.e., intended behavior if she would have

control vs. her behavior with control). To the contrary, if an individual feels she has no control in the workplace, this would be illustrative of a *disconnect* between her intentions and behaviors (i.e., intended behavior if she would have control vs. her behavior while lacking control). Given this perspective, necessary is the utilization of theoretical frameworks poised to support a conceptual understanding of two relatively disparate (or, two relatively congruent) conditions.

Subsequently detailed, it is important to appreciate the utility of two theories capable of framing inconsistencies and a perceived disconnect between intentions and behaviors, given that these circumstances have the potential to occur for any individual in both personal life and in the workplace setting, including the early care and education context. When individuals regularly bring their own personal value systems and perspectives to a setting where many coworkers must interact and many decisions must be made in implementing a myriad of tasks (e.g., the early care and education context), the experience of inconsistencies and disconnects between perspectives is possible. Cognitive dissonance theory and self-discrepancy theory provide lenses through which we can view these circumstances and augment our understanding of the professional caregiver perspective of the early care and education workplace.

### **1.1.3 Cognitive Dissonance Theory**

Cognitive dissonance theory, formulated by Festinger (1957), begins with the premises that pairs of cognitions (or “*elements of knowledge*”) can be either relevant to one another or irrelevant to one another, and for those elements of knowledge that are, indeed, relevant to one another -- the pair is either consonant or dissonant (Harmon-Jones & Mills, 2008, p.3). Cognitions are inclusive of perceptions, behaviors, attitudes, beliefs, and feelings, and can be about the self, another individual or group of individuals, or about the environment (Harmon-



Jones & Mills, 2008). If one cognition follows from the other, this pair is considered consonant, and in contrast, if one cognition *does not* follow from the other (rather, just the opposite), this pair is considered dissonant. Cognitive dissonance theory, posits that “when an individual holds two or more elements of knowledge that are relevant to each other but inconsistent with one another, a state of discomfort is created” (Festinger, 1957; Harmon-Jones & Harmon-Jones, 2008, p.71). This inconsistency and the associated state of discomfort is what Festinger (1957) identified as *dissonance*. Thus, when we think in ways or we know that we have acted or will act in ways that are counter to our established beliefs, values, and attitudes, we recognize this inconsistency, and thus, we experience dissonance. Both the magnitude of the inconsistency and the importance of each element of knowledge influence the degree of dissonance experienced.

Individuals are thus compelled by this psychologically uncomfortable state to reduce the dissonance in some way to return to a feeling of cognitive consistency. The greater the magnitude of inconsistency (i.e., dissonance), the greater the need to reduce it. Within the theory, dissonance (and the associated psychological discomfort) can be reduced by “removing dissonant cognitions, adding new consonant cognitions, reducing the importance of dissonant cognitions, or increasing the importance of consonant cognitions” (the final approach not included in Festinger’s original theory, but follows logically from his model) (Harmon-Jones & Mills, 1999, p.4). Thus, an individual who seeks to reduce dissonance can adjust her or his beliefs, feelings, attitudes, perceptions, or actions (i.e., behavioral cognitions) in some way to decrease the distance between them. Until the dissonance is resolved, the state of psychological discomfort will remain.

#### 1.1.4 Self-Discrepancy Theory

According to Higgins (1987), self-discrepancy theory has close ties to the traditional theory of cognitive dissonance, among other traditional theories that examine a sort of inconsistency or incompatibility among an individual's beliefs/actions and a sort of discomfort. However, unlike previous theories (like cognitive dissonance theory) that describe the negative feelings from this experience of incompatibility in largely general terms (e.g., discomfort), self-discrepancy theory recognizes the importance of understanding the discrepancy's manifestations -- distinguishing what "kind of discomfort or emotional problem will be induced by a particular type of belief incompatibility" (p. 319). Thus, this theory proposes that "different types of self-discrepancies represent different types of negative psychological situations that are associated with different kinds of discomfort" (p.319).

Self-discrepancy theory focuses on the relations between particular beliefs about the self and states of the self, which can bring about affective vulnerabilities. The two dimensions of self-discrepancy theory include 1) *domains of self* (the actual self, the ideal self, and the ought self), and 2) *standpoints on the self* (judgments from your own point of view and the point of view of a meaningful *other*). The *actual self* is the representation of the self, based on the attributes that you believe (or another individual believes) you actually do possess. The *ideal self* is the representation of the self, based on the attributes that you (or another individual) would ideally like you to possess (including hopes, wishes, and aspirations). And finally, the *ought self* is the representation of the self, based on the attributes that you (or another individual) believe you ought to possess (including a sense of duty, responsibilities, and obligations) (Higgins, 1987). The discrepancy then, (in relative magnitude) is the distance between two representations of comparison. For instance, the comparison of the actual self and the ideal self from a

professional caregiver's own point of view, may or may not be illustrative of a discrepancy. Similarly, a comparison with the *other* standpoint, for instance, could be between the actual self (from a professional caregiver's own point of view) and the ideal self from another person's point of view (the attributes that a center director or assessor ideally would like her to possess).

Similar to cognitive dissonance theory, self-discrepancy theory asserts that "we are motivated to reach a condition where our self-concept matches our personally relevant self-guides" (Higgins, 1987, p.321). Correspondingly, an individual can change her or his beliefs, perceptions, or behaviors to reach this condition. However, self-discrepancy theory builds on cognitive dissonance theory by taking into account individuals' differences, considering variations in "which self-guide they are especially motivated to meet," and also holding that each type of chronic (unresolved) discrepancy "is associated with specific emotional/motivational problems" individuals are likely to experience (Higgins, 1987, p.322). Specifically, this theory identifies that discrepancies between the *actual* and *ideal* self-states "signify the absence of positive outcomes, which is associated with dejection-related emotions (e.g., disappointment, dissatisfaction, sadness)," while discrepancies between the *actual* and *ought* self-states "signify the presence of negative outcomes, which is associated with agitation-related emotions (e.g., fear, threat, restlessness)" (Higgins, 1987, p.319). Higgins (1987) also points out the potential discrepancy between the *ideal* self (i.e., one's hopes, aspirations, or wishes), and the *ought* self (i.e., one's duty, obligations, or responsibilities), which presents as the "classic literary example of... the conflict between a hero's 'personal wishes' and his or her 'sense of duty'" (p.321). The potential for a discrepancy between ideal/own and ought/other also exists, presenting the contrast between one's own hopes, aspirations, and wishes and a meaningful other's idea of what the individual ought to do within their duties, obligations, and responsibilities (Higgins, 1987). This

discrepancy type is indicated as being associated with “confusion-related emotions (i.e., unsure of self/goals, muddled, confused about identity)” (Higgins, 1987, p.335).

Both a derivative and an extension of cognitive dissonance theory, self-discrepancy theory’s tenets highlight the idea that inconsistencies can be seen to manifest, not just in a general “discomfort,” but rather in a variety of negative affective states (such as dejection-related emotions, agitation-related emotions, and confusion-related emotions), and manifesting differently for different individuals.

## **1.2 Theoretical Application: Implications for Mental Health and Well-Being**

### **1.2.1 Bioecological Model and Mental Health and Well-Being**

The unique bioecological experience can be one framework from which we can make sense of an individual’s mental health and well-being. An individual’s multiple ecological dimensions are interrelated and produce a unique effect on the individual (with the individual mutually interacting with those ecological dimensions). These dynamics can influence a myriad of health outcomes, as Stokols (1996) indicates the potential impact on individuals’ physical, emotional, and social wellness, as well as their overall developmental growth. Consistent with Bronfenbrenner’s bioecological conceptualization, Stokols (1996) notes that it is not solely the separate environmental features that act on the individual, but it is the cumulative effect of these features and their interaction with one’s personal attributes (i.e., “psychologic dispositions, social behavior, and physiologic processes”) that impacts an individual’s well-being -- the unique interplay between distinctive situational and personal factors (p.287). Thus, these factors have a

cumulative and combined influence on well-being. Correspondingly, Bronfenbrenner and Ceci (1994) indicate that it is the fusion of these personal and environmental features that determines an individual's potential for relative competence or dysfunction. Interestingly, Stolkol (1996) notes the mutual influence of health itself, as an individual's health is influenced by her or his external environment (including physical and social components), and concurrently, the level of healthfulness of the environment is affected by the individual's and individuals' actions within that setting.

Stokols (1996) contends that a particular environment can be experienced by one individual very differently than another individual, and thus that environment affects each person's health differently. In discussing adult development in particular, Hoare (2009), additionally brings into focus the importance of *perception of experience* within Bronfenbrenner's conceptualization, which contends that personal reality (and indeed the subjective meaning making of the perceived environment; "unreality") is more valid than objective reality (i.e., "reality is relative") (p.81). Lounsberry and Mitchell (2009) likewise highlight the importance of a phenomenological focus, noting that various environments have been shown to elicit different behavior for different individuals. It is this unique perceived experience that is vital to the individual bioecological experience, and vital to the way in which it plays on and within an individual's health and well-being. It is by translating the ecological systems approach into a perspective on health that we can enhance our understanding of how the interrelated nature of all contexts influences the well-being of those who experience it.

This theory and its application provide a framework from which we can understand the worth of the bioecological and phenomenological experience when we think about the occurrence of mental health issues. This perspective can thus be useful in laying the groundwork

for the exploration of experiences associated with issues of mental health and well-being, including for individuals such as professional caregivers who bring their own dispositions, perspectives, and perceptions to their early care and education environment.

### **1.2.2 Demand, Control, Support and Mental Health and Well-Being**

Evidence exists for the association between individuals' experience of the demand, control, and support characteristics in the workplace and their mental health and well-being. Examining the original demand-control model, a study by Karasek (1979) indicated that within independent samples of both Swedish ( $N = 1,896$ ) and American ( $N = 911$ ) workers, it was largely the individuals facing job environments with low decision latitude and high demands who experienced "exhaustion after work, trouble awakening in the morning, depression, nervousness, anxiety, and insomnia or disturbed sleep," with similar outcomes across the two samples (p.292). Additionally, longitudinal examination of the Swedish dataset suggests a causal relation between job characteristics and mental strain outside of the employment setting. A discussion by Karasek (1979) argues that the need to exercise judgment and make decisions in the workplace is not a source of stress, rather it supports an individual's feelings of efficacy and ability to cope within the work environment. Results indicated that it was in the face of low control within a highly demanding workplace environment that strain on employee well-being was observed. It must be noted that these results are comprised of male-only samples, limiting generalizability.

Supportive of these results, Bourbonnais, Brisson, Moisan, and Vézina (1996) additionally identified the relation between job strain (i.e., the combination of decision latitude and demands) and psychological distress (i.e., "anxiety, aggressivity, depressive symptoms, and

cognitive trouble”) for 2,889 participants (male and female respondents) in and around Quebec (p.140). The association between job strain and psychological distress was strongest when high demand and low decision latitude were observed in-combination, but was also present with the exposure to one or the other of those characteristics. Although social support at work was hypothesized to be a buffering factor in this study, it did not have the posited ameliorating effect on participants’ psychological distress in the face of their job strain.

Examining the full demand-control-support model, a study by Johnson and Hall (1988) indicated a relation between particular demand, control, and support work environment characteristics and cardiovascular disease (CVD) in 13,779 male and female Swedish workers. Workers with high demand, low control, and low support showed an age-adjusted prevalence ratio of 2.17 (95% CI-1.32, 3.56) for CVD when compared to the reference group of low demand, high control, and high support (i.e., the lowest demands and the highest level of psychosocial resources), and a prevalence ratio of 2.0 when controlling for age and other potentially confounding factors. This means that those exposed to the most at risk workplace characteristics are 2.17 times (and 2.0 times, respectively) as likely to have CVD than those with the least at-risk workplace characteristics. For the majority of the demand-control combinations, prevalence rates of CVD increased with decreasing levels of work-related social support, importantly including the jobs with the highest levels of strain (high demand and low control). In this study, however, the dimension of work-related social support held much more influence than the model would indicate, having an impact on combinations of characteristics not hypothesized to be affected (e.g. high control, low support).

A longitudinal examination was also conducted ( $N=7,219$ ) to examine CVD morbidity and mortality and workplace experience over time (Johnson et al., 1989). Higher isolation and

higher strain were associated with higher age-adjusted risk for CVD morbidity and mortality (over a nine-year period) when compared to lower isolation and lower strain. Additionally, those with higher strain and higher isolation had an increased probability of developing and dying of CVD at a younger age than workers experiencing less extreme work conditions. According to Dimsdale (2008), some evidence exists that chronic psychological stressors, such as job stress, have potential pathophysiological explanations for increased risk of CVD, remarking that “such studies seem to suggest that the job-stressed patient is primed to hyper-respond to stressors even outside of the work environment” (p.1243).

A more recent study by Whitaker et al. (2015), is additionally supportive of the full model with regard to professional caregiver well-being, indicating that professional caregivers who were depressed reported higher demands, lower control, and lower support (which, in combination, these researchers term *workplace stress*) than professional caregivers who were not depressed -- a significant relation.

This model as it is applied and observed provides support for the link between particular workplace experiences and the existence of mental health issues. This perspective can thus be useful for the exploration of experiences associated with issues of mental health and well-being, including for individuals such as professional caregivers who, as research suggests, do experience workplace characteristics that put them at-risk, and do experience mental health issues associated with that risk.

### **1.2.3 Cognitive Dissonance/Discrepancy and Mental Health and Well-Being**

As extensively examined and documented within self-discrepancy theory (and in general terms, described in cognitive dissonance theory), cognitive dissonance and self-discrepancy, as



they occur, are associated with negative affective states. Be it the general “discomfort” discussed in cognitive dissonance theory or the specific affective manifestations of the incongruity, these areas of examination hold that an individual’s perceived incompatibility within themselves leads to (at best) a less-than-desired feeling that can promote change, or (at worst) a pervasive mental health issue that negatively impacts an individual’s well-being.

Discussions and examinations of the construct of cognitive dissonance have consistently highlighted the presence of a non-descript aversive feeling or feelings of discomfort during one’s experience of dissonance. In their examination, Elliot and Devine (1994) upheld this notion of dissonance as psychological discomfort. This psychological discomfort is discussed as both the *result* of the perceived dissonance and the *motivation* for its resolution, and so is understood to be present only when the inconsistencies exist. Here, the “relative magnitude of dissonance should depend on the subjective importance of the involved elements” (p.4). During the time that efforts are being made to resolve this inconsistency, the aversive feelings exist and remain until its resolution.

Unlike the general and non-descript “discomfort” produced by inconsistencies as described by cognitive dissonance theory, self-discrepancy theory argues that (based on the type of discrepancy experienced), specific manifestations of negative affect are produced. Within Higgins’s (1987) original theory, these manifestations include negative affective states ranging from dejection-related emotions, including disappointment, dissatisfaction, sadness, frustration, shame, embarrassment, or “feeling downcast” (p.322), to agitation-related emotions including fear, feeling threatened, resentment, restlessness, guilt, self-contempt, uneasiness, moral worthlessness, or weakness, to confusion-related emotions including being unsure about oneself or one’s goals, feeling muddled, or feeling confused about one’s identity (Higgins, 1987).

Also varying from the perspective of cognitive dissonance theorists, the self-discrepancy perspective takes the stance that it is, indeed, a possibility for the inconsistencies experienced to be prolonged and potentially difficult to resolve, and thus, culminate in emotional problems (Higgins, 1987). Higgins (1987) posits that the reason individuals may not be able to adjust their beliefs in order to reduce the discrepancy lies within early childhood socialization, with parental figures instilling mental representations of typically present negative outcomes or typically absent positive outcomes for children's behavior. Individuals rely on these mental representations to make sense of themselves and their environment, and these mental representations -- integrated into their belief system -- can inhibit a resolution of the discrepancy. The inability to resolve the discrepancy culminates in emotional problems (Higgins, 1987).

Empirical studies (although some raising ethical questions) provide support for these theoretical tenets. By activating discrepancies in individuals who already possessed them, Strauman and Higgins (1987) were able to elicit different types of emotional discomfort based on the type of discrepancy experienced. Additionally, Strauman (1989) explored self-discrepancies in individuals diagnosed with clinical depression and social phobia, with their study outcomes illustrating 1) the association between different emotional problems and different types of self-discrepancies, and 2) that the activation of the existing discrepancy increased individuals' respective negative affective states (i.e., clinical depression or social phobia).

A more recent examination of self-discrepancy theory by Watson, Bryan, and Thrash (2016) explored the predictive validity of self-discrepancy characteristics on depressive and anxiety symptoms across a one-year interval and across a three-year interval. Support was found for the long-term stability of the experienced discrepancies (examined with test-retest reliability), and for the self-discrepancies' significant predictive validity of the affective states of anxiety and

depression (illustrated for both time intervals). Barnett, Moore, and Harp (2017) additionally provide evidence for the association between self-discrepancies and particular affective states, with outcomes generally (but not entirely) in-line with the predictions and findings of the original examination of the theory. In this study, the difference between the actual self and the ideal self from that individual's own point of view was the most consistent with regard to predicting specific affective states, and was positively associated with sadness and negatively associated with joviality. This aligns with Higgins's theory, linking this particular comparison with the characteristic lack of positive experiences and the experience of emotional dejection (Higgins, 1987).

Though empirical evidence is not fully consistent with regard to particular manifestations of self-discrepancy theory as it originated, this theory (along with cognitive dissonance theory) provides valuable theoretical perspectives on the experience of inconsistencies and the psychological and affective implications of the experience of those inconsistencies.

These theoretical perspectives as they are applied and observed provide support for the link between psychological experiences of inconsistency and negative affective states and/or particular mental health issues. These perspectives can thus be useful for the exploration of experiences associated with issues of mental health and well-being, including for individuals such as professional caregivers who may need to consider a wide array of perspectives and pieces of information when meeting their daily demands.

### **1.3 Theory, Research, and the Early Care and Education Context**

#### **1.3.1 Bioecological Influences: The Workplace**

Bronfenbrenner's bioecological model can be employed to make sense of the contextual influence and experience of the workplace (including the early care and education context), and employees' functioning within that workplace. Employees engage with this context on a regular basis, providing the distinction of the *microsystem* (Bone, 2015). This microsystem context thus has a direct influence on the individual. With this immediate influence, occurrences and experiences within this work environment have the ability to substantially impact the continued development, disposition, and behavior of any employee.

Importantly, the bioecological model indicates that each individual experiences her or his work environment (e.g., the early care and education workplace) differently, with the experience made up of both objective and perceived properties (Bone, 2015). According to Bone (2015), "differences in the perceptions of the setting stem from the individual's unique set of memories, personal tastes, cultural ideals, beliefs, or associations which all add to the experience of being within the office for that worker" (p.262). For this reason, employees (e.g., professional caregivers) may not experience interactions with coworkers or supervisors similarly, and may not experience work directives or typical work tasks in the same manner as others within the same work environment. Each employee's experiences with her or his own unique set of contexts (from the microsystem, mesosystem, exosystem, macrosystem, to the chronosystem) will contribute to a workplace experience unique and particular to that individual.

### **1.3.2 Demand, Control, and Support in the Early Care and Education Workplace**

#### **1.3.2.1 Demand in the Context of Early Care and Education**

The expected work of professional caregivers is to consistently support the growth and development of the children in their care. In doing this, early care and education professionals often experience high demand in their daily work. In providing quality care supportive of children's development, caregivers consistently create a warm, welcoming, sensitive, responsive, caring, clean, and safe environment for the children in their care, with aims to develop close relationships with children and families. They provide enriching play tasks and instruction, provide supportive interactions with children who exhibit challenging behavior, and engage and communicate effectively with primary caregivers, co-workers, and directors. They are additionally attentive and responsive to children's nutritional and hygiene needs. Professionals who serve populations that are socioeconomically disadvantaged also provide environments attentive to the difficult circumstances and implications of poverty (Whitaker et al., 2015). All of this (and all that is done to assure that these things are possible) is achieved in often loud and at times chaotic environments, often with experiences of staff turnover that can hinder classroom consistency. Although all early care contexts vary, demand (and caregivers' perception of that demand) can be argued to exist at some level.

In addition to the expected work of the profession, professional caregivers must also uphold the standards and regulations the center commits to follow (with some, but not always complete congruence between the tasks of expected caregiving work and the tasks of standards and regulations). Standards and regulations for early care and education are the professional guidelines and/or requirements for practice, which vary across level (i.e., national, state, local levels), and across regulating body (e.g., Head Start, NAEYC, Keystone STARS, Pre-K Counts,

Department of Public Welfare, etc.). These standards and regulations are in place to attain, maintain, improve, and verify the quality of care children receive in early care and education settings.

These mechanisms for accountability, however, did not always exist within the field. The 1983 publication *A Nation at Risk: The Imperative for Educational Reform* (by the National Commission on Excellence in Education) has been identified as an initial catalyst for the standards and accountability movement (Chandler et al., 2012). In addition, the federal Government Functioning and Results Act of 1993 required publicly funded programs to demonstrate their effectiveness, with private entities thus following suit for the requirement of “accountability and formal evidence” (Gilliam & Frede, 2012, p.73). Gilliam and Frede (2012) note that in this new culture of accountability, this demonstration of the effectiveness and quality of services is critical for the survival of services for young children and families, and program evaluation (of the particular national, state, and local standards and regulations) is the means to this evidence for accountability.

In many early care and education contexts, professionals must follow and implement multiple types and layers of standards and regulations at one time (that at times can be contradictory), each held to account. As indicated by Gilliam and Frede (2012), the implementation of quality standards and regulations can have considerable impact on classrooms’ or facilities’ ability to maintain adequate funding from regulating bodies; however, accountability outcomes can additionally indicate a reputation of quality in the local community, with quality level indicators communicating the value of the facility. At their core, standards and regulations are put into place to attain, maintain, improve, and verify the quality of care children receive in these contexts, supportive of children’s healthy developmental trajectories; however,

their high stakes implementation (often incredibly precise and comprehensive) can increase the level of demand for the work of professional caregivers.

This level of demand has been examined in two studies of professional caregiver workplace experience. For 1,001 Head Start teachers, Whitaker et al. (2015) identified a mean demand rating of 17.01 (*SD* 3.41) on a scale ranging from 5-25 (with higher scores indicating greater perceived demand). Linnen et al. (2017) similarly examined this construct in female caregiving staff, with a mean rating of 12.5 (*SD* 2.12) on a scale of 5-20 (again, where a higher score indicates more job demand). These are the only known studies that have examined demand from the perspective of the professional caregiver, and thus, this construct dimension requires further exploration. Although the many demands listed for the expected work in the early care and education setting and the potential high stakes nature of these demands allows one to surmise that all early childhood contexts are highly demanding, it is caregivers' unique *perception* of the context demand that is the critical factor to consider.

In considering the expected demands of the job as well as the additional layer of demands of standards and regulations, we must also consider that the individual differences of each professional caregiver (via the bioecological experience) provide for a wholly subjective experience of the early care context itself. For this reason, the perception of demand in a particular classroom is largely subjective, and differs from caregiver to caregiver. The dynamics of each classroom are different (and could be viewed as more or less demanding by those who may observe the classroom); however, it is each individual's unique perception of the level of demand experienced that matters. To a newly hired caregiver, a typical day could be perceived as extensively demanding. And to a seasoned caregiver, an extensively demanding day for a newly hired caregiver could be perceived as an "easy" day. Neither of these perspectives is more or less

valid than the other; each experiences the context in her or his own way. These perceptions can also vary across time, as caregivers build their work experience in general and in particular working with the group of children currently in their care.

### **1.3.2.2 Control in the Context of Early Care and Education**

Evidence also exists that professional caregivers can, at times, perceive a lack of control in their daily work, be it within their overall *decision latitude* (i.e., their job control or discretion), their *skill discretion* (i.e., being able to utilize their skills and abilities), or their *decision authority* (i.e., having the say in how they approach their work). Whitaker et al. (2015) notes that teachers can experience this low level of control if they do not have autonomy in the classroom and thus cannot use their particular skills and interests in their work, cannot develop and implement new skills in the classroom, and cannot adjust classroom content to meet the needs of the children in their care.

According to an examination by Linnen et al. (2017), female child care staff experienced a wide range of perceived job control. On a scale of 12-48 (*where counterintuitively a higher score indicates less job control; more at-risk*), the mean rating was 24.9 (*SD* 5.03), with the two subcomponents of control (skill discretion and decision authority, both on a scale of 6-24) indicating staff means of 12.4 (*SD* 2.33) and 12.5 (*SD* 3.32) respectively. In addition, it was noted that those with the lowest income had less job control on average. In a similar examination of 1,001 Head Start staff, Whitaker et al. (2015) identified a mean control rating of 22.92 (*SD* 4.06) on a scale of 9-45, *where (counterintuitively) higher scores indicated less control (i.e., more at-risk)*. Similar to Linnen's (2017) indication that those with the lowest income had less job control, Whitaker et al. (2015) found that those with a household food insufficiency had a mean rating of control at 24.8 (*SD* 4.24), putting them more at-risk based on the dimension of



control than the overall sample (i.e., counterintuitively higher control scores indicating *less* control; being more at-risk in their scale).

In a similar vein to the demand component, the level of control perceived within a particular classroom context by a particular individual can be argued to be largely subjective. Based on a caregivers' bioecological experience, and experiences of the early care and education context specifically, the level of control (and potentially more importantly, the level of control that is deemed acceptable) to each individual may differ. Examinations of caregiver control in the early care and education classroom by Whitaker et al. (2015) and Linnen et al. (2017) are supportive of this account, indicating relatively large standard deviations for ratings of control within each of their samples -- denoting wide variability within the samples. Given that the only known research on teacher perceptions of control (particular to this conceptualization) exists within these two studies, it can be argued that this construct has not yet been well-explored or well-examined.

### **1.3.2.3 Support in the Context of Early Care and Education**

Support for professional caregivers has the potential to vary widely. Whitaker et al. (2015) note that "workplace stress can be exacerbated by the lack of emotional and instrumental support received from colleagues at work. This can range from a lack of empathy or respect to a lack of technical or practical advice in meeting challenges at work" (p.58). Professional caregivers in a study by Whitaker et al. (2015) rated their level of support with a mean of 10.51 (*SD* 3.48) on a scale of 5-25 where higher scores indicated less support (i.e., more at-risk). However, like demand and control, the level of support perceived and the level of support required to *feel* supported also differs based on the caregiver and based on the particular caregiving context.

Providing a qualitative look at caregivers' perceived support, an examination by Wells (2017) identifies themes which emerged from study interviews, including discussions of perceived support within: 1) organizational regulations (including classroom ratios and relief for brief breaks, management decisions, salaries, sick time, and vacation time), 2) workplace relationships (including co-teachers, center directors, management-level staff, non-classroom teachers, substitute teachers, and children's parents), and 3) classroom structural quality (including planning time, supports to work with children with special needs or challenging behavior, and paperwork). From the study interviews, the researcher presents a number of excerpts of staff perceptions of supportive and non-supportive features within the early care and education setting. The following is an example of a caregiver who feels supported:

The support that I receive mainly comes from the lead teacher, who is in the classroom with me. You have to make a bond, some type of bond, with the lead teacher that's in your classroom, because she has to or he has to be able to see when you need help, without you having to say, 'I need some help.' (Wells, 2017, p.109)

In contrast, the following is a caregiver who does not feel supported by a co-teacher:

There are some teachers that put too much on their assistant to do ... they're not being paid the same, but they're supposed to do the same work, and that's not fair. So I think that's the biggest thing, is that conflict there. When the assistant is not doing her work, it falls back on the teacher, and that creates another burden for them; a stressful point. (Wells, 2017, p.109)

Similarly, caregivers varied with regard to their perceived support from the center director:

The assistant center director is great, I love her. I enjoy working with her.

She's very positive; she's very helpful. She's the person you can relate to, you know ... Because you can see that they care; that they are concerned.

(Wells, 2017, p.109)

And this, contrasted with a perceived lack of support:

I feel like sometimes I can't talk to my supervisor one-on-one, because I feel like nothing is going anywhere and nothing is being done to rectify the problem. (Wells, 2017, p.109)

Wells (2017) notes that instead of identifying the myriad of job stressors as the force behind preschool teachers' attitudes about their job, the study showed that it was the support they received *related to these job stressors* (the amount and types of support they received) that had more of an impact. Thus, with examples of caregivers who feel a sense of support in their workplace (and with examples of those who do not, in particular ways), there exists the potential for other professional caregivers to feel similarly -- from relatively supported to relatively unsupported in their work as professional caregivers. Beyond Whitaker et al. (2015) and Wells's (2017) investigations, no other known research has empirically examined perceived level of support or supports received and needed from the perspectives of the professional caregivers themselves.

#### **1.3.2.4 The Composition of Demand, Control, and Support in Early Care and Education**

In considering that each individual experiences the workplace (and demand, control, and support characteristics) in uniquely her or his own way, theory and research hold that the

particular composition of these characteristics (as they are experienced) contributes to an individual's mental health and well-being and workplace functioning. Whitaker et al. (2015) examined professional caregiver well-being and quality of care in the context of high demands, low control, and low support -- providing evidence that this demand, control, support composition is associated with professional caregiver depressive symptoms and increased conflict within teacher-child relationships.

As an example, a professional caregiver who perceives a high level of demand (e.g., new standards and regulations have just been implemented), a low level of support (e.g., her co-teachers and director do not provide needed support), and a low level of control (e.g., she lacks the ability to use her skills for caring for children in the way she wishes) is at risk for poor outcomes of mental health and well-being. Given the theoretical and empirical evidence, high demand requires an increased level of support, and/or an increased level of control. However, additional constructs may be at play which could contribute to the relation between the demand, control, and support composition and professional caregivers' mental health and well-being, and could be at play via the control component most specifically.

### **1.3.3 Cognitive Dissonance/Discrepancy in the Early Care and Education Workplace**

Within the work environment of the early care and education context, professional caregivers' experience of demand, support, and control may vary from center to center, and individual perceptions may vary from one caregiver to another within the same classroom. Given the nature of the workplace context, however, the potential exists for a caregiver to experience a high level of demand and a low level of support. Thus, well-being (as indicated by the demand-control-support model) may rest on an individual's perception of control. It is in this space that

an incongruity between a caregiver's skills and personal value system (developed via unique bioecological systems) and the required standards, regulations, and directives (as stated by policymakers, regulators, or directors) may contribute to a low level of perceived control. This low level of control could, thus, be characteristic of the relative disconnect between a caregivers' intended behavior in the classroom and that caregiver's behavior when she lacks the ability to carry out that intended behavior.

Professional caregivers may be required to embody professional values and carry out actions that are potentially misaligned with (or even contradictory to) their own particular value system. The caregiver's obligation to carry out workplace tasks that do not fit with the way she would personally approach the job using her skills and abilities (what the demand-control-support model would identify as low skill discretion and decision authority; control) has the potential for a high magnitude of discrepancy between what an employee would do if she had the say, versus what she does when these options do not exist. A lack of control (and thus, a high magnitude of dissonance/discrepancy) has the potential to negatively impact a professional caregiver in the workplace setting. Cognitive dissonance theory and self-discrepancy theory provide directly applicable perspectives for this potential misalignment, and have the potential to illuminate and frame these generally obscured and at times nebulous (but consequential) experiences of the professional caregiver.

Proposed here is the potential for professional caregivers to experience this sense of cognitive dissonance or self-discrepancy between what they want to carry out in the classroom (i.e., *aspired* tasks) and those tasks they feel they have an obligation to carry out in the classroom (i.e., *required* tasks). Based on 1) each individual's unique set of developmental contexts over the lifespan, 2) the way in which each individual experiences the work context, and 3) the

standards, regulations, and requirements of the particular early care and education context, these aspired and required tasks will be particular for each individual. It is even possible that some (or all) of the tasks that feel obligatory to the caregiver also exist within the set of tasks that they aspire to in the classroom; they are not mutually exclusive, but with the magnitude of discrepancy varying from one individual to another. In the case that discrepancy is experienced, implications exist for professional caregivers' mental health and well-being, with implications extending to the quality of care provided and for the development of children within that care.

Evidence, both indirect and more direct in nature, supports the potential that actions carried out in the classroom that caregivers want to carry out (i.e., *aspired* tasks), as well as actions that caregivers carry out based on obligation (i.e., *required* tasks) exist, with overlap and relative inconsistencies between these actions unique to each individual. This potential inconsistency between aspired tasks and required tasks could thus be conceptualized as discrepancy within the early care and education setting.

#### **1.3.3.1 Indirect Evidence: Subjective and Multiple Perspectives of Quality in ECE**

Indirect evidence for the potential inconsistencies between caregiver *aspired tasks* and *required tasks* can be found within the literature that 1) posits a subjective account of quality in the early care and education context and 2) examines the multiple perspectives of quality in this context. In this literature, theorists and researchers discuss that the meaning of quality in the early care and education context 1) has a level of subjectivity and differs based on individual differences and contexts, and 2) differs among various stakeholder groups (including professional caregivers, directors, policymakers, and parents), respectively. In considering these differences between individuals and between stakeholders, it follows that differences in value systems and perspectives are also likely to occur.

#### **1.3.3.1.1 The Potential for Subjectivity**

Regarding the notion that perspectives and values in the early care and education classroom can differ based on individual differences, some theorists contend that the definition of quality can be quite subjective and dynamic, rather than wholly objective and static (Tanner, Welsh, & Lewis, 2006; Woodhead, 1998). In this space, the definition of quality is derived from individuals' values, beliefs, and knowledge (shaped by their own individual contexts) about children, child development, and the goals of early care and education (Woodhead, 1998). These theorists are thus "rejecting narrow, prescriptive, decontextualized views of early childhood development in favour of a more open, holistic, context-sensitive approach to physical and social environments" (Woodhead, 1998, p.7). Taking this view (with the potential for individuals' divergent frameworks, beliefs, and values), it could be argued that not everyone's perspectives on the way care is provided will be fully consistent.

Theorists valuing the idiosyncratic perspective contend that the diversity of ideas about childhood dictate a definition that changes across time and across place. For individuals who may balk at the notion that the meaning of quality could be fully subjective (with valid concern that consistency and accountability are then, impossible), some theorists in this space do contend that because children often have shared developmental needs, quality could be seen as "relative but not arbitrary," maintaining the ability to assess classroom practices. A model proposed by Tanner et al. (2006) is supportive of both context specificity and baseline objectivity, presenting a continuum between universalism and relativism. This model provides a starting point for quality with minimum standards of objective and agreed-upon requirements decided by government experts, applied universally to all populations and contexts (i.e., universalism). Progressing beyond this official approach then allows for a subjective, context-specific and

dynamic definition of quality that is continuously contested through stakeholder discussion (i.e., relativism). These theorists argue that *quality is a process*, with a more valuable understanding of what quality is as you move along the continuum from the universalistic end toward the relativistic (Tanner, et al., 2006).

Given this intriguing conceptualization and the potential for subjective perspectives of quality (from one portion of the continuum to the other), it can be argued that not all individuals' views on the provision of care will be wholly consistent with all others' views. The potential, then, exists for incongruities between the value systems of professional caregivers and the value systems of those creating and implementing the standards, regulations, and requirements. Thus, what caregivers aspire to carry out in the classroom and what they are required to carry out in the classroom may also differ.

#### **1.3.3.1.2 Multiple Perspectives of Quality**

The multiple perspectives model of quality provides a framework from which we can consider that an emphasis can be placed on different contextual attributes in the early care and education context, and that different stakeholders have the potential to have differing views -- potentially leading to inconsistencies between and among perspectives. The original model (a multiple perspectives approach to quality assessment) holds that the criteria for quality can be set and assessed by examining the early care and education context from various perspectives (Katz, 1993). Subsequent versions derived from this model hold (more literally) that individuals from different stakeholder groups, utilizing different lenses (e.g., professional caregivers, directors, regulating bodies), may make sense of quality differently than those in other groups (Ceglowski, 2004; Ceglowski & Bacigalupa, 2002).



Katz's original *Five Perspectives on Quality of Early Childhood Programs* identifies the five perspectives of 1) Top-down, 2) Bottom-Up, 3) Inside-Outside, 4) Inside, and 5) Outside (Katz, 1993). First, the Top-down perspective includes quality criteria of the observable/enforceable standards, including ratio, staff qualifications and stability, adult-child relationships, equipment and materials, space per child, staff working conditions, and health and safety. The Bottom-up perspective includes quality criteria of the child's subjective experience in the early care and education context. The Inside-Outside perspective includes quality criteria regarding characteristics of parent-teacher relationships. The Inside perspective includes quality criteria regarding staff perceptions, focused primarily on the dimensions of 1) colleague relationships, (2) staff-parent relationships, and (3) relationships with the sponsoring agency. And finally, the Outside perspective includes quality criteria of the community's and society's perception of early care and education. For each of these perspectives, Katz (1993) includes prompt questions meant to be used as criteria in service of assessing quality from each of the respective perspectives. Katz (1993) notes that a basic implication of having multiple perspectives on quality is that there may be discrepancies from the various points of view, and expresses that, "the important aspect of experience is the meaning given to it by the one who undergoes it" (p.10).

Inspired and derived from Katz's model, the model presented by Ceglowski and Bacigalupa (2002) and Ceglowski (2004) alters slightly the original five perspectives model, modified to their four perspectives of 1) Top-down (*Researcher/Professional Perspective*, including the structural, process, and global measures), 2) Outside-In (*Parent Perceptions of Child Care Quality*, including "program flexibility and staff responsiveness to family needs"), 3) Inside-Out (*Staffs' Perceptions of Child Care Quality*, including "administrative, collegial, parental, and sponsor relationships"), and 4) Bottom-Up (*Children's Perspectives of Child Care*

*Quality*, including “children’s comfort, level of acceptance, and engagement in activities”) (p.104). This conceptualization of the perspectives differs somewhat from that of Katz’s original model. This model also moves from use mainly for assessment purposes, to the use as a research framework seeking to attain further information on the (more literal) perspectives of stakeholders. In an interview protocol, these researchers moved toward the idiosyncratic, asking stakeholder groups, for instance, about the key components of a quality program and about the single most important factor leading to quality care (Ceglowski, 2004).

Provided the original and modified theoretical conceptualization, researchers have carried out empirical examinations of the more literal understanding of multiple perspectives of quality, exploring particular viewpoints of different stakeholder groups given the modified model. In her examination, Ceglowski (2004) examined the perspectives of parents, child care staff, child care administrators, legislators, licensed family child care providers, unlicensed family child care providers, child care licensors, teacher educators, and child care resource and referral staff, obtaining this information utilizing individual interviews and focus groups. Overall, the frequency of topics occurring in conversation varied based on stakeholder group.

Among all stakeholder groups in this study, four main themes of quality *provider* included “(1) *providers enjoy children*; (2) *providers are caring, stable and respond to the individual needs of the children in their care*; (3) *providers communicate well with families*; and (4) *providers act in a professional manner and seek out training opportunities*” (Ceglowski, 2004, p.106). Of these main themes, stakeholder response profiles (response percentages for the four themes) differed from one stakeholder group to another (percent theme response by stakeholder group ranging from 1.9% to 54%), illustrating value differences based on stakeholder perspective (Ceglowski, 2004).

Among all stakeholder groups, five main themes of quality *program* included “(1) *structured programs that offer learning activities to children and provide culturally responsive care*; (2) *group sizes that are at or below licensing requirements, low staff turnover, and staff ratios that are at or above licensing requirements*; (3) *adequate facilities and equipment that are safe and a nutrition program that offers wholesome meals*; (4) *programs that are parent-friendly and help parents locate needed community resources and support*; (5) *programs that seek accreditation and offer staff higher wages and more benefits*” (Ceglowski, 2004, p.107). Of these main themes, stakeholder response profiles (response percentages for the five themes) again differed from one stakeholder group to another (percent theme response by stakeholder group ranging from 0% to 52%), and again illustrate value differences based on stakeholder perspective (Ceglowski, 2004).

In a separate examination of the multiple perspectives of quality, Harrist, Thompson, and Norris (2007) carried out focus groups with child care center owners and directors, parents, child caregivers, policymakers, and social service providers. Analysis of these focus groups indicated six themes of quality discussed among the groups, including: 1) communication and rapport, 2) caregiver practices, 3) staff characteristics 4) finances and resources 5) visibility and involvement and 6) professionalism, with perspectives often differing based on stakeholder group.

Individuals within the parent and caregiver stakeholder groups often focused on caregiver practices and nurturing interactions (with professional caregivers additionally focusing on the implementation of classroom curricula). In contrast, policymakers and social service workers often focused on features of staff characteristics (including caregiver-child ratios, training, and turnover), visibility in the community, and parent involvement. Additionally, representative of

the inconsistency across perspectives was the relative value placed on caregivers who are nurturing versus caregivers with education and training, which was dependent on stakeholder group.

These researchers found director/owner responses difficult to categorize and divergent across questions, at times aligning with caregiver/parent responses and at other times aligning with social service workers and policymakers. This could be argued to be illustrative of individual differences among the director/owner group, supportive of the position that perspectives on quality and the most important features of quality can differ from one individual to another, even (at times) within the same stakeholder group.

The two previously discussed studies illustrate the potential for different stakeholders to have differing conceptualizations of quality in the early care and education context. In addition to differences between stakeholder groups, evidence was also provided for differences *within* stakeholder groups (as illustrated by the director perspectives within Harrist et al., 2007). This further provides evidence that views of quality and views of how to best provide care can differ from group to group (such as from professional caregivers to those creating and upholding standards and regulations), and also from individual to individual. Both the multiple perspectives of quality model and the empirical examinations of the model provide justification for the position that all individuals may not share the same views, values, or emphasis for how care in the early care and education context should be provided. In the same vein as the work on subjectivity of perspectives, the potential exists for differences between the value systems of professional caregivers and the value systems of those creating and implementing the standards, regulations, and requirements, and thus -- what caregivers aspire to carry out in the classroom, and what they are required to carry out in the classroom may also differ.

#### **1.3.3.1.3 Potential for Inconsistencies**

Holding to the premise that professional caregivers largely act benevolently, it follows that they would seek and aspire to carry out actions in the classroom in-line with what they see as important and with how they make sense of quality. Policymakers (with their particular value systems and perspectives) set the early care standards, regulations, and requirements, with directors often tasked with assuring that these are carried out effectively. If professional caregivers define and make sense of quality in the classroom differently than those policymakers who (collectively) set the standards and directors that affirm these standards, it follows that professional caregivers will have inconsistencies with what they aspire to do in the classroom and what they are required to do in the classroom.

#### **1.3.3.2 More Direct Evidence: Professional Caregiver Perspectives**

Rare in the early care and education literature is a direct explication of professional caregivers' views in opposition to the standards, regulations, and requirements that they are currently tasked to follow. However, in an examination of a quality rating and improvement system (QRIS) in Pennsylvania, outcomes of a provider (i.e., professional caregiver) survey and administrator interviews provide evidence for just these views of opposition. Results of this investigation found that:

From the survey, providers reported feeling overwhelmed by the volume of standards and underwhelmed by the value of standards for improving their quality and child outcomes. Providers indicated that they experienced many system requirements as overly prescriptive and it was unclear how many requirements were designed to distinctively advance the outcomes

of the children they serve. (Sirinides, Fantuzzo, LeBoeuf, Barghaus, & Fink, 2015, p.45)

Many quotes and summaries of the study outcomes are fully supportive of the disconnect between aspired and required tasks in the early care and education classroom. The following are selected excerpts best representative of this disconnect:

From the perspective of child and after-school care providers, some requirements of Keystone STARS feel disconnected from working with children and their families, and therefore providers fail to see their value. On the whole, providers believe there is too much paperwork and associated required tasks that prevent them from caring for children and supervising and working with staff. (Sirinides et al., 2015, p.35)

Instead of working with my children, I am tied to my desk going through my boxes making sure the documentation is all there. (Sirinides et al., 2015, p.36)

I think that some [providers] see it as a continuous quality improvement process but it is also compliance. So it's really hard I think to separate them and that's where you have the rub up against "I've got to do it because of the compliance side," or "I really need to do this because it's the right thing to do." (Sirinides et al., 2015, p.37)

...some providers discussed STARS as a compliance-driven system in terms of focusing too much on paperwork and having to complete

activities for no other reason than meeting the STARS standards.  
(Sirinides et al., 2015, p.38)

Some child care centers may choose not to participate in the STARS program because all the "hoops" we have to jump through are daunting. Another provider stated, Jumping through all the hoops and ticking all the boxes required by STARS does not show in the programming on a daily basis. Often we find we are doing a task for STARS just to get it done and documented. The time and effort to complete the standard has little impact on the program. (Sirinides et al., 2015, p.38)

I have over 20 years' experience, and a B.S. & M.S. in this field and truly feel the assessors and the scales are out of touch with the reality of what we actually do every day. The scale and the assessors live in a "perfect childcare world" that does not exist. We are considering dropping out of the STARS program, because the requirements have become so unattainable. (Sirinides et al., 2015, p.41)

Another study, focused more broadly on a comprehensive initiative to improve quality in Kentucky early care and education centers, provides additional evidence to this case (Brown & Hallam, 2004). Though within only a small portion of what the professional caregivers were asked to discuss, some individuals noted that within their initial experience with the QRIS system (within the larger initiative), they felt that surveyors for the licensing system had a lack of

knowledge about child development. Some individuals thought that “their lack of knowledge resulted in the surveyors not focusing on what was really important, relative to caring for young children” (p.26). One professional caregiver dejectedly explained that she felt the surveyor was only interested in looking at documentation and paperwork -- that they were “totally skipping” how the children were playing, how the teachers were interacting with the children, or how they were teaching the children in their care -- illustrating a stark disconnect between what the provider thinks is important in the classroom and what the QRIS system requires in the classroom (Brown & Hallam, 2004, p.27).

Although the examination of the QRIS system in Pennsylvania was carried out in direct service of improving the current system (with relevant and important actions taken following the study) and the examination of the QRIS system in Kentucky illustrated providers’ initial reactions to a just-implemented initiative, these inquiries provide evidence that the potential does exist for this type of direct inconsistency between caregiver aspired and required tasks. Given that this disconnect has been experienced by actual professional caregivers, it can be argued that what caregivers want to do (aspired tasks) and what they are obligated to do (required tasks), in reality have the potential to be inconsistent, and have the ability to take shape as an experience of discrepancy.

### **1.3.3.3 Studies of Discrepancy Outside of the Early Care and Education Context**

It is important to note that an examination of similar inconsistencies between work tasks (in their study, *preferred* work and *actual* work) has been carried out focused on the work of mental health occupational therapists in Australia, with outcomes indeed illustrating a discrepancy between what these individuals would like to carry out and their current work tasks (Lloyd, King, & McKenna, 2004). Although this particular professional content is not directly



applicable to the work of early care and education caregivers, it is worthy of noting that researchers have identified the possibility that what professionals carry out and what they would prefer to carry out in their daily work may be illustrative of a relative congruence or relative discrepancy.

#### **1.4 Critical Implications: Demand, Control, Support and Discrepancy**

Considering that 1) the nature of control and self-discrepancy can be conceptualized in a similar fashion, and 2) both the demand-control-support composition and self-discrepancy are associated with one's mental health and well-being, the unique experiences of demand, control, and support and discrepancy may be related. Thus, exploration of these components in tandem could support a more nuanced understanding of the ways that the professional caregiver workplace experience relates to her or his mental health and well-being.

#### **1.5 Gaps in Current Research**

A key discussion in current literature focused on the early care and education context is that of the mental health and well-being of professional caregivers (Jeon et al., 2017). As more awareness is brought to the prevalence of mental health issues within the early care and education workforce (and the association with quality of care and children's development), the more we see the need to explore how the particular workplace experiences of these workers may play a part. Jeon et al. (2017) has shown that (in addition to teacher self-efficacy) the work

environment is predictive of teacher psychological well-being. This is an important piece of the puzzle, with an even more important realization that this issue must be of prime focus. We must, however, continue to explore the early care and education workplace experience, and investigate using novel perspectives in order to gain a full understanding of its associations with and potential contributions to the well-being of our professional caregivers.

Whitaker et al. (2015) was the first to utilize the demand-control-support model to describe the workplace experience in the realm of early care and education. This model seems rather useful in this context, given that each of the components can differ (and can be perceived differently) from one caregiver to another, and from one early care context to another -- with critical implications for caregiver well-being and potential buffering features. The sole investigation of demand, control, and support within the early care and education context must be replicated and extended, with exploration of various combinations of these characteristics. Whitaker et al. (2015) did, indeed, identify the link between the composition of high demand, low control, and low support characteristics (their conceptualization of *workplace stress*) and caregiver mental health (i.e., the covariate of depressive symptoms) within the early care and education context; however, the association with professional caregiver mental health was not the prime focus of their study, and the examination did not explore particular *combinations* of the demand, support, and control characteristics. Thus, we must explore further and more directly focus upon how various combinations of these characteristics are associated with various dimensions of professional caregiver mental health and well-being, as associations with mental health and well-being are indicated by the model theory and also by evidence from the model's examination.

It can be additionally argued that there may be more to investigate with regard to the demand-control-support model and its association with employee mental health and well-being, and the contribution of the control component specifically. In consideration of theoretical perspectives not previously applied to the early care and education context, cognitive dissonance theory and self-discrepancy theory may provide an additional area of exploration and a potentially intriguing link between these characteristics, given that one's perceived level of control can be conceptualized using tenets of these theories. Evidence exists for inconsistencies between aspired and required work in the early care setting; however, there are no studies that explicitly use cognitive dissonance or self-discrepancy theories to understand the early care and education workplace experience. In previous research, particular combinations of demand, control, and support (Bourbonnais et al., 1996; Johnson & Hall, 1988; Johnson et al., 1989; Karasek, 1979; Whitaker et al., 2015) and the experience of cognitive dissonance and self-discrepancy (Elliot & Devine, 1994; Strauman, 1989; Strauman & Higgins, 1987; Watson, Bryan, & Thrash, 2016) are associated with poor mental health and well-being. The indication of a link between one's experience of control (as it is experienced in combination with demand and support) and the experience of cognitive dissonance and self-discrepancy could contribute to a more nuanced understanding of these characteristics and their potential association within the early care and education workplace experience and mental health implications.

Additionally, gathering and examining information on the subjective experience in the early care workplace (i.e., perceived demand, control, support and the perceived discrepancy or congruence between aspired and required tasks) would add to the somewhat small (but growing) body of research that explores the early care and education workplace context from the perspective of the professional caregiver; a perspective that has not yet been adequately studied.

If we are to have a better understanding of how the early care and education workplace experience is associated with (or impacts) the disposition of its workforce, we must build upon past research, replicating previous work and utilizing novel modes of inquiry for investigation.

## 1.6 Research Questions

1. Is there a relation between the composition of a professional caregiver's demand-control-support characteristics and her/his mental health and well-being?
  - a) Is an *at-risk* DCS composition (i.e., high demand, low control, low support) associated with a higher frequency/greater severity of professional caregiver issues of mental health and well-being, as compared with other groups?
  - b) Is a *not at-risk* DCS composition (i.e., any composition with low demand) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being, as compared with other groups?
  - c) Is a *buffered risk* DCS composition (i.e., any composition with high demand, and at least one buffering component of high control or support) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being than observed in the *at-risk* group?
2. Do professional caregivers experience a discrepancy between *required* and *aspired* tasks when caring for children in the early care classroom?
  - a. How do professional caregivers make sense of the *required* and *aspired* tasks in the early care and education context?

- b. What language, terminology, and valence do caregivers use when discussing *required* and *aspired* tasks?
3. Is the experience of discrepancy between *required* and *aspired* work associated with a higher frequency/increased severity of professional caregiver issues of mental health and well-being?
4. Is a DCS composition containing high control (as compared with DCS compositions with lower levels of control) associated with a lower frequency/severity of discrepancy experienced between *required* and *aspired* work?
5. Is there a pattern among the composition of a professional caregiver's demand-control-support characteristics, experience of discrepancy, and mental health and well-being?
  - a) Do higher risk characteristics (i.e., high demand, low control, low support, *at-risk* DCS composition, and experience of discrepancy) often occur together, and are they associated with a higher frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)?
  - b) Do lower risk characteristics (i.e., low demand, high control, high support, *not at-risk / buffered risk* DCS composition, and no experience of discrepancy) often occur together, and are they associated with a lower frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)?
  - c) Are buffering characteristics/control features associated with characteristics and caregiver mental health and well-being in-line with theoretical models?

(see Table 2; Figure 3)

**Table 2 Research Questions, Constructs Measured, and Measures**

Research Question	Constructs Measured	Measures
<p>1. Is there a relation between the composition of a professional caregiver's demand-control-support characteristics and her/his mental health and well-being?</p> <p>a) (As compared with other groups) Is an <i>at-risk</i> DCS composition (i.e., high demand, low control, low support) associated with a higher frequency/greater severity of professional caregiver issues of mental health and well-being?</p> <p>b) (As compared with other groups) Is a <i>not at-risk</i> DCS composition (i.e., any composition with low demand) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being?</p> <p>c) Is a <i>buffered risk</i> DCS composition (i.e., any composition with high demand, and at least one buffering component of high control or support) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being than observed in the <i>at-risk</i> group?</p>	<p>Demand Control Support D-C-S Composition</p> <p>Global Psychological Stress</p> <p>Depression</p> <p>Anxiety</p>	<p>Perceived Work Characteristics Survey (Haynes, Wall, Bolden, Stride, &amp; Rick, 1999)</p> <p>Perceived Stress Scale 10-Item (PSS10; Cohen, S., Kamarck, T., &amp; Mermelstein, R., 1983; Cohen &amp; Williamson, 1988)</p> <p>Center for Epidemiologic Studies Depression Scale Revised (CES-D; Radloff, 1977)</p> <p>Generalized Anxiety Disorder 7-Item (GAD-7) scale (Spitzer, Kroenke, Williams, &amp; Lowe, 2006)</p>
<p>2. Do professional caregivers experience a discrepancy between <i>required</i> and <i>aspired</i> tasks when caring for children in the early care classroom?</p> <p>a. How do professional caregivers make sense of the <i>required</i> and <i>aspired</i> tasks in the early care and education context?</p> <p>b. What language, terminology, and valence do caregivers use when discussing <i>required</i> and <i>aspired</i> tasks?</p>	<p>Discrepancy</p>	<p>Discrepancy card arranging activity &amp; Interview</p> <p>Two question items inquiring concretely about discrepancy</p>
<p>3. Is the experience of discrepancy between <i>required</i> and <i>aspired</i> work associated with a higher frequency/increased severity of professional caregiver issues of mental health and well-being?</p>	<p>Discrepancy</p> <p>Global Psychological Stress</p> <p>Depression</p> <p>Anxiety</p>	<p>Discrepancy card arranging activity &amp; Interview</p> <p>Two question items inquiring concretely about discrepancy</p> <p>Perceived Stress Scale 10-Item (PSS10; Cohen, S., Kamarck, T., &amp; Mermelstein, R., 1983; Cohen &amp; Williamson, 1988)</p> <p>Center for Epidemiologic Studies Depression Scale Revised (CES-D; Radloff, 1977)</p> <p>Generalized Anxiety Disorder 7-Item (GAD-7) scale (Spitzer, Kroenke, Williams, &amp; Lowe, 2006)</p>

4. Is a DCS composition containing high control (as compared with DCS compositions with lower levels of control) associated with a lower frequency/severity of discrepancy experienced between <i>required</i> and <i>aspired</i> work?	Demand Control Support D-C-S Composition  Discrepancy	Perceived Work Characteristics Survey (Haynes, Wall, Bolden, Stride, & Rick, 1999)  Discrepancy card arranging activity & Interview  Two question items inquiring concretely about discrepancy
5. Is there a pattern among the composition of a professional caregiver's demand-control-support characteristics, experience of discrepancy, and mental health and well-being? a) Do higher risk characteristics (i.e., high demand, low control, low support, <i>at-risk</i> DCS composition, and experience of discrepancy) often occur together, and are they associated with a higher frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)? b) Do lower risk characteristics (i.e., low demand, high control, high support, <i>not at-risk / buffered risk</i> DCS composition, and no experience of discrepancy) often occur together, and are they associated with a lower frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)? c) Are buffering characteristics/control features associated with characteristics and caregiver mental health and well-being in-line with theoretical models?	Demand Control Support D-C-S Composition  Discrepancy  Global Psychological Stress  Depression  Anxiety	Perceived Work Characteristics Survey (Haynes, Wall, Bolden, Stride, & Rick, 1999)  Discrepancy card arranging activity & Interview  Two question items inquiring concretely about discrepancy  Perceived Stress Scale 10-Item (PSS10; Cohen, S., Kamarck, T., & Mermelstein, R., 1983; Cohen & Williamson, 1988)  Center for Epidemiologic Studies Depression Scale Revised (CES-D; Radloff, 1977)  Generalized Anxiety Disorder 7-Item (GAD-7) scale (Spitzer, Kroenke, Williams, & Lowe, 2006)

Demand, control, support, and the required and the aspired work in early care and education:  
The workplace experience and professional caregiver mental health and well-being

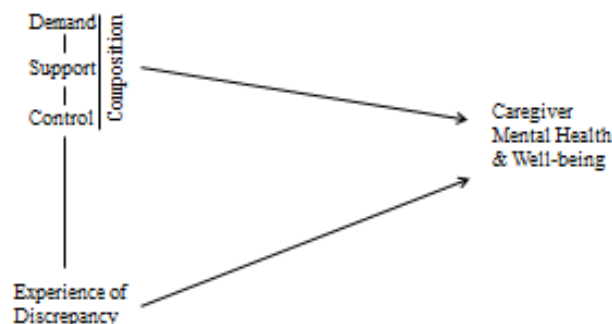


Figure 3 Research Model

## **2.0 Methods**

### **2.1 Participants**

Forty-five individuals participated in this study, with one participant excluded from data analysis for missing data based on technological problems that occurred during the survey. Two individuals were read the consent information, but did not complete consent. Participants were initially recruited via a study that was being conducted by one of this study's investigators which assessed a social-emotional intervention targeting teacher practices (initially recruiting target teachers from the study control group). When this recruitment strategy proved unsuccessful for obtaining the target number of participants, participants were subsequently recruited via snowball sampling by way of the study team's networks, with study team members sharing a physical and digital flyer with potential participants and with those who could share with potential participants.

Of the 45 total participants, 24 were from a mid-sized city in southwestern Pennsylvania (including city-proper and boroughs with city addresses), and 12 were from outside of the city-proper and boroughs with city addresses, however, were still within the county or the surrounding counties. Three were within Pennsylvania, but outside the city area, including west-central and south-central Pennsylvania. Five participants were from a large city metro area and suburbs in Michigan (including western city suburbs and locations west of the city), and one participant was from a large city in northwestern Florida.

To be eligible, participants were required to be employed as a professional caregiver for children ages 0-5 (but not Kindergarten), were required to be at least 18 years old, and were



required to speak English fluently. Additionally, participants were required logistically to have access to a computer with internet access and be able to interact with the researcher by phone at the same time that they were utilizing the internet. Participants were compensated \$35 for their participation in the research study via the university's participant payment system.

### **2.1.1 Demographics**

Of the 44 included in analysis, participants were an average of 37.95 (SD 13.28) years old (with minimum 20 years, and maximum 65 years). Forty-two participants (95.5%) were female, while two participants (4.5%) were male. Six participants (13.6%) indicated that they were Black or African American, 38 participants (86.4%) indicated that they were White, and 3 participants (6.8%) indicated Other, which included two who specified their religious identification, and one who indicated her or his regional heritage. Participants could indicate one or more selections within this survey item. Forty-three participants (97.7%) indicated that they did not consider themselves Hispanic or Latino, with one participant (2.3%) indicating that she or he preferred not to respond.

### **2.1.2 Professional and Center Characteristics**

Twenty-one participants (47.7%) indicated that their current position was Lead Teacher, five participants (11.4%) indicated that they were an Assistant Teacher, three participants (6.8%) indicated that they were a Teacher, and two participants (4.5%) indicated that they were a Head Teacher. Other responses that represented one participant (13 total) included: "Assistant Group Supervisor," "Assistant to the group in Toddler room and Lead Teacher in Preschool

Classroom,” “CO Teacher,” “Floater,” “Graduate Teaching Assistant,” “Head Start Lead Teacher,” “Lead Teacher and Assistant Director,” “Lead Teacher 2,” “Mentor Head Start Teacher,” “Mentor Teacher,” “Preschool Teacher,” “Special Education Teacher,” and “Teachers Assistant.” This text was adjusted within the dataset without changing meaning of the position (including typos, caps, and details in addition to the position) so as to group correctly.

Participants were asked, “*What is the age group/age range of your current group of children?*” Four participants (9%) reported working with the youngest children, grouped together with these four participants working with the age range of six weeks to 18 months (and up to 24 months depending on space available and developmental readiness). Twelve participants (27%) reported working with the majority toddler ages (and some young preschool ages), grouped together with these twelve participants working with the age range of young toddlers, toddlers, and 12 months to 3 1/2 years old. Twenty participants (45%) reported working with the majority preschool ages, grouped together with these twenty participants working with the age range pre-k, preschool, and of 3 to 5 years (and 8 years due to developmental age). These age groups did not fall into clear age-distinct groups, as the majority of the age ranges reported differed across participants, not easily grouped. An effort was made to group ages based on the lower and upper ends of the ranges reported, and with consideration for developmental stages. The remaining participants (8 participants, 18%) reported working with a broader age range that traversed the developmental stages from infant to preschool stages, (e.g., 0 to 5-year-olds). Information reported was only adjusted for format of the years (e.g., numbers versus words, dashes, slashes), and adding “years old” in an effort to support grouping. Those with more detail in the response were not adjusted.

When asked to *Please indicate the standards and regulations your center follows*, 22 participants reported NAEYC, 28 reported Keystone STARS, 8 reported Head Start, 8 reported DPW, 12 reported Pre-K Counts, 9 reported Other x1, 1 reported Other x2, and 4 reported *I do not know*. Including each *Other* response as one (except for the case that Other = None), ten participants (22.7%) indicated that their center follows 1 standard/regulation, 15 participants (34.1%) indicated that their center follows 2 standards/regulations, 13 participants (29.5%) indicated that their center follows 3 standards/regulations, and 2 participants (4.5%) indicated that their center follows 4 standards/regulations. Four participants represented zero within the data, which included 3 individuals who responded “I don’t know,” and one participant who indicated “Other” and noted “None” in their written response for “Other” (which was counted as zero). The 4th person (of 4) who responded “I don’t know” did indicate one standard/regulation - NAEYC (potentially indicating that she or he knew they followed NAEYC, but was unsure of what else they followed).

Those reporting *Other* in their write-in responses of standards and regulations included: “Reggio Emilia,” “None” (again, likely to respond no standards or regulations to go along with no marked items, counted as zero), “We receive Head Start materials as some of our children are in the Head Start Program,” “CLASS,” “Private Academic Nursery-K License,” “center specific standards,” “Montessori,” “PA Standards,” “GREAT START READINESS PROGRAM,” and “GSRP” (which is likely the acronym for the previous response, indicting two participants following these standards/regulations). Participants could select as many options as were applicable, and no participant used more than two of the four open “Other” entry lines. Of the 28 participants responding that they follow Keystone STARS standards, 24 wrote in their center’s STAR level, with 1 participant indicating STAR 1, 4 participants indicating STAR 2, 13

participants indicating STAR 4, 1 participant indicating STAR 4A, and 1 participant indicating “3? 4?” in her or his response.

Participants indicated a mean of 12.55 (SD 10.90) years of experience caring for children in an early care and education and/or preschool setting, with a minimum of 0.67 years (8 months), and a maximum of 40 years. This text was adjusted within the dataset only to make it specific to years and to take out the word “Years.” Participants’ highest level of education included 1 participant with a *High school degree* (2.3%), 5 participants with *Some college courses* (11.4%), 1 participant with a *Child Development Associate's degree* (2.3%), 3 participants with an *Associate's degree* (6.8%), 26 participants with a *College degree (BA or BS)* (59.1%), and 8 participants with a *Master's Degree (MA or MS)* (18.2%).

Participants were asked, “If you answered that you have an AA, BA/BS, MA/MS, or higher, what field is that degree in?” and provided a plethora of responses, with only 6 (13.6%) of the 44 *not* responding on this item. Fifteen participants (34%) provided responses that included “education” of any kind along plus any mention of “early” or “early childhood,” (with participants included in this grouping even if the early childhood was a certificate, minor, or not the focal type of education, and even if elementary education was the focal type). Six participants (13.6%) provided responses that included “elementary education” without the mention of “early” or “early childhood, while four participants (9%) provided responses including “education,” with no specifier, included even if education was a minor. Five participants (11%) responded “applied developmental psychology,” while four participant responses (9%) focused on “child development” and “child care,” or noted the developmental stage of “early childhood” but did not include “education.” The four remaining participants (9%) provided responses that did not fit clearly into the aforementioned groups, with one participant

“halfway through” but not yet finished with a graduate degree in “early childhood education” (though the survey question inquires about the completion of degrees), one participant who noted that she or he is “halfway through a Master’s” program currently,” but did not note the area of study, one participant noting that they earned a GED with specific philosophical teacher training for young children (which, could be argued to fit in the above early childhood education or child development groups, although a GED), and one with a degree in “biobehavioral health” and a minor in “human developmental and family studies.” Many participant responses included multiple areas of focus beyond education and child development, with some of interest including counseling, psychology, social work, organizational communication, curriculum and instruction, special education (in specific), early intervention, international languages, and family studies.

### **2.1.3 Characteristics of Participant Excluded From Analysis**

The one participant excluded from analysis because of technological issues was a 40-year-old white female who indicated she was not of Hispanic background. She indicated that she was a Lead Teacher, had worked 10 years in early care and education, and was currently working with children in the age-two age group. She had her Associate’s Degree in Early Childhood, and her center followed one regulation, Keystone STARS at Level 2. The participant was paid in full for her participation in the study.

## **2.2 Design**

This was an exploratory mixed methods study examining descriptive perceptions, frequency of experiences, and associations between study variables. The study was conducted at only one time point utilizing a convenience/snowball sample of participants. The study data include transcripts of audio-recorded interviews and data output from an online survey/questionnaire measure via Qualtrics online survey system.

The main outcome variables evaluated in this study include: (1) Professional caregiver experiences/perceptions of (a) demands, control, support (and composition of these perceptions for each participant), and (b) discrepancies/inconsistencies between beliefs, values, behaviors, thoughts, etc. regarding work tasks “required” and work tasks "aspired" within the early care and education work environment, and (2) Professional caregiver mental health and well-being, including (a) global psychological stress, (b) symptoms of depression and (c) symptoms of anxiety (see Figure 3).

## **2.3 Materials and Measures**

### **2.3.1 Participant Materials**

Participants completed the subsequently described questionnaire, activity, and measures on the web via the Qualtrics online survey system. In order to logistically take part in the study, participants needed to have access to a computer with internet access, and while utilizing the

internet, have the ability to at the same time speak on the phone with the researcher. (See the following descriptions and Procedure for additional details.)

### **2.3.2 Professional and Center Characteristics**

Professional caregiver and center characteristics were obtained utilizing a participant questionnaire, which inquired about professional caregiver demographics, professional role, years of experience, and education (level and type), as well as the regulatory bodies by which the professional caregiver's center is assessed and/or monitored (e.g., NAEYC, Keystone STARS, Head Start, DPW, Pre-K Counts, etc.) (see Appendix A).

### **2.3.3 Caregiver Perceived Demand, Control, and Support in the Workplace**

Caregiver perceived demand, control, and support in the workplace were measured utilizing three of the nine scales of the Perceived Work Characteristics Survey (PWCS; Haynes, Wall, Bolden, Stride, & Rick, 1999) (see Appendix B). The PWCS is a self-report measure that assesses employee perceptions of work characteristics for use in research on employee psychological well-being (Haynes et al., 1999). The measure was validated with employees working within health services occupations (Haynes et al., 1999), and particular subsets of the measure's nine scales have been used with employees in an additional health occupations sample (Morrison, Payne, & Wall, 2003) and in a sample of mental health professionals, specifically (Wood et al., 2011). Although validated for health service workers, the wording and content of these scales (with the exception of one scale particular to the validation sample, Professional Compromise) could be argued to be applicable for use in a variety of occupational groups. For

the development of this measure, the authors aimed to integrate leading frameworks detailing the intersection of job features and employee well-being, including that of the Job Demand-Control Model (e.g., Karasek 1979). For a study directly rooted in the tenets of the Job Demand-Control and Job Demand-Control-Support models, Morrison et al. (2003) employed a particular subset of the PWCS scales (work demands, autonomy and control, and peer support), which will be similarly utilized in the current study.

With regard to the psychometric properties of the measure, Haynes et al. (1999) identified internal reliability (i.e., Cronbach's alpha) for all scales of the PWCS for all occupational groups in their study ranging from .70 to .92, with reliabilities specific to the three scales in the current study ranging from .89 to .92 (work demands), from .83 to .89 (autonomy and control), and from .90 to .92 (peer support). With a total sample of 6,671, Morrison and colleagues (2003) found internal consistencies of .91 for the work demands scale, .88 for the autonomy and control scale, and .91 for the peer support scale. Additional evidence for the internal reliability of the measure scales is presented by Wood et al. (2011), who reported Cronbach's alphas of 0.92 (work demands + one additional item;  $N = 1,839$ ), 0.89 (autonomy and control;  $N = 1,837$ ), and 0.95 (peer support;  $N = 1,835$ ). Similar levels of reliability were indicated in the current study ( $N = 44$ ), with  $\alpha = 0.91$  (work demands scale),  $\alpha = 0.83$  (autonomy and control scale),  $\alpha = 0.86$  (peer support scale *about coworkers*),  $\alpha = 0.91$  (peer support scale *about the director/principal*) -- and particular to the current study, a coworker support and director/principal support composite scale with  $\alpha = 0.87$  (specifics about this composite scale, detailed below). Because the measure items were chosen based on and aligned with particular constructs of focus, Haynes et al. (1999) contend that the face validity of the measure is high. In addition, the confirmed nine-scale model structure (with factorially distinct constructs) provides



some evidence for the measure's construct validity (Haynes et al., 1999). Haynes et al. (1999) moreover indicate that the measure scales were sensitive to the differences among the study's various occupational groups, with statistically significant occupational differences at  $p < .001$ , and with the groups presenting with expected differences. For example, hospital nurses' autonomy/control scores systematically increased based on participants' job seniority. Across other occupational groups, these systematic differences held as well, such that the autonomy/control scores increased from junior doctors, to registrars, to consultants -- the authors' expected pattern. Doctors had the highest mean demand score, and ancillary staff had the lowest. Regarding associations with psychological measures, work demands scores (not combined with other characteristics) were correlated negatively with job satisfaction ( $r = -.29$ ), and correlated positively with depression ( $r = .32$ ) and anxiety ( $r = .44$ ). Autonomy/Control scores were correlated positively with job satisfaction ( $r = .29$ ), and correlated negatively with depression ( $r = -.09$ ), but not related to anxiety ( $r = .00$ ). Peer Support scores were correlated positively with job satisfaction ( $r = .42$ ), and correlated negatively with depression ( $r = -.22$ ) and anxiety ( $r = -.18$ ) (Haynes et al., 1999).

With regard to the PWCS scales used in the current study, the six-item work demands scale explored how often participants confront particular issues in the workplace (e.g., *I cannot meet all the conflicting demands made on my time at work.*), with response options of *not at all*, *just a little*, *moderate amount*, *quite a lot*, and *a great deal*. Six items explored perceptions of autonomy and control, inquiring *To what extent do you...* e.g., *Carry out your work in the way you think best?*, with response options of *not at all*, *just a little*, *moderate amount*, *quite a lot*, and *a great deal*. In addition, four items explored peer support in the workplace, inquiring *To what extent can you...* e.g., *Count on your colleagues to listen to you when you need to talk*

*about problems at work?*, with response options of *not at all*, *to a small extent*, *neither great nor small extent*, *to a great extent*, and *completely*. (see Appendix B)

The four-item peer support scale was used twofold in the current study, to 1) inquire about employees' coworkers (those who provide care for children alongside the respondent, in general), and 2) inquire about employees' center director (or principal, etc.). Although a *leader support* scale did exist within the developed PWCS measure, the items provided somewhat different information than the *peer support* scale, and it could be argued that obtaining analogous information for each type of support would be characteristic of a balanced approach for examining employees' perceived support. This produced an eight-item composite scale of peer support-coworkers + peer support-director/principal.

Within a recent study exploring professional caregiver demand, control, and support (Whitaker et al., 2015), scores for the two scales of control and support were (somewhat counterintuitively) recorded such that occurrences that arise less often/rarely have a *higher* score, for the purposes of indicating higher risk (e.g., I very rarely feel like I have control and I very rarely feel like I have support would have a higher score, illustrative of higher risk). Demand scales were (more intuitively) recorded such that a lesser severity of demand would have a lower score, indicative of lower risk. This method provided the study's researchers the ability to combine control and support scores with demand scores to create a quantitative composite score of workplace stress (i.e., with higher scores of the combined three scales indicating higher risk). For the current study, however, scores remained representative of the question items as they are phrased (i.e., experiencing work demands items *a great deal* = a higher demand score, experiencing autonomy and control items *a great deal* = a higher control score, and experiencing peer support items *completely* = a higher support score). This was done to examine (categorically

and qualitatively) the profiles of each individual participant (where each participant profile = level of demand, level of control, and level of support). This provided for easier interpretation and the ability to observe the *composition* of the three characteristics rather than one overall score that could potentially be produced by different relative levels of each characteristic.

Response ratings of demand, control, and support (ratings 1-5) were averaged across items *within each dimension*, such that the six items of work demands, the six items of the autonomy and control scale, and the eight items of the peer support scale each provided a dimension score of 1 to 5. For example, an individual who rated all six of the work demands items with a 5 (equaling 30) would have a demand score of  $30/6$ , or 5.0 of a possible 5.0. For the peer support score, for example, an individual who rated all eight of the peer support items with a 1 (equaling 8) would have a support score of  $8/8$ , or 1.0 of a possible 5.0. This scaling process allowed for easier interpretability and was planned a priori in the case of potential missing data.

A proposed potential method to categorize these scores was to consider scores of 1-2 as *low*, scores greater than 2 and less than 4 as *moderate*, and scores of 4-5 as *high*. Another proposed potential method was to partition the scores given the distribution of the data, which may indicate different means of categorization. In examining the data, two of the three scales (Demand and Support) presented with a relatively trimodal characteristic. Thus, at first, categories were created with the initial a priori groups of 1-2 as *low*, scores greater than 2 and less than 4 as *moderate*, and scores of 4-5 as *high*. However, this proved to produce groups that were overwhelmingly moderate; moderate characteristics that were not meaningful when characterizing participant profiles. Because of this, the previously described categories were dropped and stricter groups were created such that scores of 1-2.99 = lower; scores of exactly 3 = moderate; and scores of 3.01-5 = higher (for each characteristic of demand, control, and support).

Participant profiles were then created by the researcher such that (at first) 1) At risk = Higher demand, lower control, lower support; 2) Not at-risk = Lower demand; 3) Buffered risk = Higher demand, Higher control OR Higher support; and 4) Ambiguous risk = Moderate levels of DCS characteristics. However, when compiled, a realization was made that one researcher-indicated *At-risk* participant profile was actually: 1) Higher Demand Category (Greater than 3), 2) Lower Control Category (Less than 3), and 3) Moderate Support Category (Exactly 3). By initial rules, this participant should have been placed in the Ambiguous category based on *Moderate Support*. However, researcher instincts first placed the participant into At-risk, and then upon further review (and realization), it was identified that this participant lacked a characteristic buffering agent of a high level of control or a high level of support.

It can be argued that this moderate level (absent one of the high buffering characteristics) may not provide the means of buffering as has been indicated for those of high support or high control within the literature. It is the buffering element (a *higher* component) that should make the difference, and that is absent. Because of this, final participant profiles were thus identified as 1) At risk = Higher demand, lower/moderate control, lower/moderate support, 2) Not at-risk = Lower demand, any level control and support, 3) Buffered risk = Higher demand, Higher control OR Higher support, any level of the other, and 4) Ambiguous risk = Moderate level(s) of DCS characteristics that do not fall into another category.

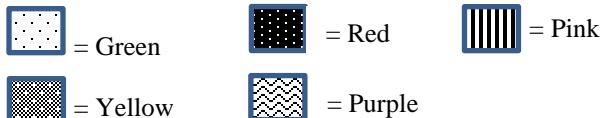
The one participant profile characterized as *Ambiguous* was indicated based on that participant's *Moderate* Demand. Since this is not higher or lower (it is exactly in the middle), it cannot be argued that the participant is at possible risk or not at risk, and the possible buffers may look different for a moderate demand.

These efforts to accurately characterize and depict participant profiles were completed as proposed for the research study, as profiles with moderate demand, support, or control (presenting with some ambiguity) were a priori to be considered on a case-by-case basis. For reader review, below are the participant profile indicators of all six participants exhibiting any *Moderate* demand, control, or support scores. (see Table 3)

**Table 3 Participant Compositions including *Moderate* Components**

Moderate Demand Category (Exactly 3)	Higher Control Category (Greater than 3)	Higher Support Category (Greater than 3)	Ambiguous risk = Moderate level(s) of DCS characteristics that do not fall into another category
Higher Demand Category (Greater than 3)	Moderate Control Category (Exactly 3)	Higher Support Category (Greater than 3)	Buffered risk = Higher demand, Higher control OR Higher support, any level of the other
Lower Demand Category (Less than 3)	Moderate Control Category (Exactly 3)	Lower Support Category (Less than 3)	Not at-risk = Lower demand, any level control and support
Higher Demand Category (Greater than 3)	Lower Control Category (Less than 3)	Moderate Support Category (Exactly 3)	At risk = Higher demand, lower/moderate control, lower/moderate support
Higher Demand Category (Greater than 3)	Higher Control Category (Greater than 3)	Moderate Support Category (Exactly 3)	Buffered risk = Higher demand, Higher control OR Higher support, any level of the other
Higher Demand Category (Greater than 3)	Moderate Control Category (Exactly 3)	Higher Support Category (Greater than 3)	Buffered risk = Higher demand, Higher control OR Higher support, any level of the other

Grayscale Key:



These levels of demand, control, and support (i.e., *lower*, *moderate*, and *higher* and the participant profiles that follow) were thus utilized for examination alongside qualitative and categorical study data. Continuous dimension scale scores (i.e., numeric scores of 1-5 for each of the three dimensions) were also recorded and utilized for comparison and analysis with other quantitative study data (see Results section).

### **2.3.4 Caregiver Mental Health and Well-Being**

#### **2.3.4.1 Global Psychological Stress**

Caregiver global psychological stress was measured with the 10-item Perceived Stress Scale (PSS10; Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988) (see Appendix C). The original version of the Perceived Stress Scale (PSS14; Cohen et al., 1983) included 14 items, and was designed to measure the degree to which life circumstances are subjectively viewed as stressful, for use within community samples. Cohen and Williamson (1988) contend that no psychometric quality is lost (and quality is actually slightly *improved*) by using the 10-item version of the measure (rather than the 14-item version), and recommend the use of the PSS10 in subsequent research. The measure prompts participants, *The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.* Example items include, *In the last month, how often have you found that you could not cope with all the things that you had to do,* *In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?* and *In the last month, how often have you felt confident about your ability to*

*handle your personal problems?* with response options of: Never (0), Almost Never (1), Sometimes (2), Fairly Often (3), or Very Often (4).

With regard to the psychometric properties of the PSS10, Cohen and Williamson (1988) contend that there is adequate internal reliability for each version of the PSS. The PSS10 was derived by eliminating the four items with relatively low factor loadings within the 1983 sample of the PSS14, which resulted in slightly improved explained variance and internal reliability (i.e., explained variance improved from 41.6% to 48.9% and Cronbach's alpha improved from .75 to .78). Cohen and Janicki-Deverts (2012) report Cronbach's alpha of .78 for the noted 1983 sample ( $N = 2,387$ ), and for more recent samples, including .91 for a 2006 sample ( $N = 2,000$ ) and .91 for a 2009 sample ( $N = 2,000$ ). Similarly high reliability was indicated in the current study, with  $\alpha = 0.92$  ( $N=44$ ).

Correlations between the PSS10 and other measures provide some evidence for construct validity (Cohen & Williamson, 1988). Indicated associations with the PSS10 include: measures of stress (i.e., two items inquiring about the amount of stress experienced in an average week and as compared to a year ago,  $r = .39$ ,  $r = .26$ , respectively; an item inquiring about the number of life events experienced in the past year,  $r = .32$ ), a self-report health rating ( $r = .22$ ), and the use of health services (i.e., health services utilization scale,  $r = .22$ ) (Cohen & Williamson, 1988). Associations with the PSS also include: life satisfaction (i.e., inquiries about dissatisfaction with self, job, and life in general,  $r = .47$ ), and help-seeking behaviors (i.e., a self-report of thoughts about seeking help in the past year was associated with higher PSS scores,  $p < .001$ ) (Cohen & Williamson, 1988). Poorer health behaviors, including getting fewer hours of sleep, not eating breakfast, and consuming higher quantities of alcoholic drinks were additionally associated with higher scores on the PSS10 (Cohen & Williamson, 1988). Cohen and Janicki-Deverts (2012) cite

studies of interest utilizing the PSS, with evidence that higher PSS scores have associations with higher cortisol levels, suppressed immune function, and greater susceptibility to infectious disease. In their study, Cohen and Janicki-Deverts (2012) found higher PSS10 scores for the demographic groups of women, younger adults, those in lower socioeconomic status, and those with lower levels of education and lower income.

Possible scores on the PSS10 range from 0-40, with higher scores on the PSS10 indicating more psychological stress. No author-established score cutoffs exist for the PSS10, and it is suggested that the distribution of the collected data is used to determine sample-specific categories. Given the relatively trimodal characteristic of the data distribution, the Perceived Stress Scale (PSS10) scores were partitioned into three categorical levels. The number of possible scores 0 to 40 cannot be split equally into three groups, however, information provided by Melnyk, Gawlik, and Teall (2021, p.727) indicate utilization of cutoffs in thirds, with the middle (moderate) group with one less than the high and the low groups, such that scores of 0-13 were considered in this study to be the Lower PSS10 Category, 14-26 were considered in this study to be the Moderate PSS10 Category, and 27-40 were considered in this study to be the Higher PSS10 Category. These categories were utilized for examination alongside qualitative and categorical data. Continuous scores (i.e., numeric scores of 0-40) were also recorded and utilized for comparison and analysis with other quantitative data (see Results section).

#### **2.3.4.2 Caregiver Depression**

Caregiver depression was measured utilizing the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), which has been designed to measure the presence of depression symptoms within the general population. The measure (see Appendix D) prompts participants, *Below is a list of the ways you might have felt or behaved. Please tell me*



*how often you have felt this way during the past week.* Example items include, *I felt that I could not shake off the blues even with help from my family or friends, I felt I was just as good as other people, I had trouble keeping my mind on what I was doing, and I felt depressed,* with response options of: Rarely or none of the time (less than 1 day), Some or a little of the time (1-2 days), Occasionally or a moderate amount of time (3-4 days), or Most or all of the time (5-7 days).

With regard to the psychometric properties of the CES-D, Radloff (1977) argues that the internal consistency of the measure is very high (coefficient alpha for the general population sample .84 to .85, and the patient sample .90) and deems the measure's test-retest reliability to be adequate ( $r = .51$  to  $.67$  for mailed retests;  $r = .32$  to  $.54$  for re-interviewed participants). For participants with no reported negative life events at both test and retest ( $n = 607$ ), test-retest  $r = .54$ , indicated to be "the fairest estimate of test-retest reliability" (p.392). Construct validity of the measure is provided via correlations with relevant self-report measures (i.e., Bradburn Negative Affect, .60 to .63 for the general population sample and .55 for the patient sample; Bradburn Positive Affect, - 0.21 to - 0.25 for the general population sample and -.55 for the patient sample) and via correlations with clinical depression ratings (i.e., correlations with the Hamilton Clinical Rating Scale, .44 at admission and .69 after four weeks of treatment; correlations with the Raskin Rating Scale, .54 at admission and .75 after four weeks of treatment) (Radloff, 1977). The measure's psychometric properties were shown to generally hold for a variety of participant demographics (Radloff, 1977). The measure is argued to be acceptable for use with both general populations and clinical populations (Radloff, 1977). Whitaker et al. (2015) utilized the CES-D in their examination of professional caregiver well-being and professional caregiver-child relationships in Head Start centers, with internal consistency

(Cronbach's alpha) of the measure in their study found to be .91. Similarly high reliability was indicated in the current study, with  $\alpha = 0.92$  ( $N = 44$ ).

Possible scores on the CES-D range from 0 to 60, with scores  $\geq 16$  indicating depressive symptomology, a conventionally used cut point with higher scores representing a greater number of depressive symptoms (Whitaker et al., 2015). For examination alongside qualitative and categorical data within this study, participants with scores of 0-15 were categorized as *depression symptomology absent* and participants with scores of 16-60 were categorized as *depression symptomology present*. Continuous scores (i.e., numeric scores of 0-60) were also recorded and utilized for comparison and analysis with other quantitative data (see Results section).

#### **2.3.4.3 Caregiver Anxiety**

Caregiver anxiety was measured using the Generalized Anxiety Disorder 7-Item (GAD-7) scale (Spitzer, Kroenke, Williams, & Lowe, 2006) (see Appendix E). The measure prompt asks participants *Over the last 2 weeks, how often have you been bothered by the following problems?* Example items include, *Feeling nervous, anxious, or on edge*, *Not being able to stop or control worrying*, and *Worrying too much about different things*, with response options of: Not at all (0), Several Days (1), More than half the days (2), and Nearly every day (3).

Regarding the psychometric properties of the GAD-7, Spitzer et al. (2006) conducted a criterion-standard study of the measure with 2,740 adult patients (participant age,  $M = 47.4$ ,  $SD = 15.5$ ) from 15 U.S. primary clinics. Of the total sample, 965 individuals spoke by phone directly with a mental health professional within one week of completing the measure. Criterion and construct validity were confirmed via the comparison between GAD self-report and mental health professional diagnoses, health care use, measures of participant functioning, and number

of disability days (i.e., the number of days in the past three months for which symptoms interfered with typical activities) (Spitzer et al., 2006). Convergent validity was found to be good, given comparisons with the anxiety measures of the Beck Anxiety Inventory ( $r = .72$ ) and the Symptom Checklist-90 ( $r = .74$ ). Agreement was observed between the measure as it was administered by a mental health professional and the measure via self-report (indicating good procedural validity at .83). In addition, internal consistency was identified at Cronbach's alpha = .92, and test-retest reliability was obtained at .83). Factor analysis confirmed anxiety as measured by the GAD-7 to be distinct from the dimension of depression, as measured with the eight depression items of the Patient Health Questionnaire. According to Spitzer et al. (2006), the GAD-7 is valid and efficient for anxiety screening and for assessing the severity of anxiety in clinical and research populations.

In a study used to validate the GAD-7 in the general population, Lowe et al. (2008) utilized a sample of 5,030 participants in Germany (participant age,  $M = 48.4$ ,  $SD = 18.0$ ), observing a confirmed unidimensional factor structure and internal consistency of the measure, alpha = .89 across all subgroups. Similarly high reliability was indicated in the current study, with  $\alpha = 0.90$  ( $N = 44$ ). Evidence for construct validity includes intercorrelations with the two-item Public Health Questionnaire ( $r = .64$ ), the Rosenberg Self-Esteem Scale ( $r = -0.43$ ), the Questionnaire on Life Satisfaction ( $r = -0.34$ ), and the Resilience Scale ( $r = -0.29$ ). As hypothesized, women had higher GAD-7 scores than men, and scores increased with age to peak levels 45 to 65 years old. In addition, this study found large differences between the mean scores of the study's general population sample and the primary care and diagnosed generalized anxiety disorder samples of Spitzer et al. (2006) -- also supporting construct validity. Lowe et al. (2008)

argue that their study evidence is supportive of both the reliability and validity of the GAD-7 for its use as an anxiety measure for the general population.

Possible scores on the GAD-7 range from 0 to 21. Developers of the measure have indicated cut points of 5 (Mild), 10 (Moderate), and 15 (Severe). This study utilized the author-indicated cut points and categories, such that scores of 0-4 were designated as *minimal*, scores of 5-9 were considered *mild*, scores of 10-14 were considered *moderate*, and scores of 15-21 were considered *severe* (Spitzer et al., 2006). As indicated in the study proposal, the minimal and mild scores were combined into one group, which thus produced three categories: Minimal AND Mild GAD Category (0-9), Moderate GAD Category (10-14), and Severe GAD Category (15-21). These categories were used for examination alongside qualitative and categorical data within this study, Continuous scores (i.e., numeric scores of 0-21) were also recorded and utilized for comparison and analysis with other quantitative data (see Results section).

### **2.3.5 The Characterization of Discrepancy Between Required and Aspired Tasks**

Professional caregivers' subjective experience of *required* and *aspired* tasks in the workplace were collected to explore the *discrepancy* between them, i.e., the inconsistency between the two components of comparison. This construct was measured through 1) a remote and digital card arranging activity that provided a visualization of caregiver experience and a prompt for discussion (the Discrepancy Activity), 2) an audio-recorded activity and a semi-structured interview (which occurred during and after the digital card arranging activity), and 3) two question items that inquired directly about caregiver experience of discrepancy.

### 2.3.5.1 Discrepancy Activity

The digital card arranging activity explored how professional caregivers make sense of their *required* and *aspired* tasks in the classroom. Participants were prompted: *Please list below the tasks you do while at work. Please only include one task in each box. The maximum number of tasks you can enter on this page is 25. You'll use what you include here for an activity on the next page.* Twenty-five blanks were numbered #1 through #25 where participants could enter their tasks. Participants could type as many or as few tasks as they wished, up to the maximum 25. Participants were not told what the activity would be on the next page, or how these tasks were involved. Caregivers were given as much time as they wished to type what they do while at work.

Upon clicking Next to move beyond the task-writing portion, participants reached a page that included 1) activity instructions, 2) the tasks that they had just typed, and 3) three boxes that read at the top of each -- Have to dos, Both, and Want to dos. Upon reaching this page, the participants were alerted that the audio recording had now begun, and the following instructions on the page were read aloud by the researcher:

*Please arrange the tasks you entered into the following groups:*

*Have to dos*

*Both*

*Want to dos*

*You can (if you wish) use the Both box for tasks that overlap/fit in both the Have to dos and the Want to dos groups. To move the tasks into the three groups, click on and drag each task into the box where you feel it belongs. You can continue to move and change the task arrangement until you have everything in its place. The tasks can be moved around as many*

*times as you wish. While you are moving the tasks around to where you think they fit best,, please talk out loud (and into the phone) with what you're thinking about and feeling while making the task arrangements. Please feel free to say anything that comes to mind while you're arranging the tasks. (Please don't click the Back button, or your arrangement will be lost!!)* (also see Appendix F)

The researcher clarified that the participants could tell the researcher what they were moving around and why, and anything they were thinking while they were doing that. The researcher also provided a warning that the survey system would auto-populate small numbers on each of the tasks at the time they were placed within the boxes, that these numbers were not a part of this research study, and that the participants should disregard them. Upon the submission of this task arranging page (done *after* the subsequent follow-up interview), the online survey system saved the image snapshot of the participants' final digital card arrangement (i.e., their final arrangement at the time they clicked *Next*).

The development of this novel card arranging activity was inspired by the more structured and prescribed methods of Q methodology (for which participants sort pre-created cards into piles of, for instance, *most like me* to *least like me*). Although this method can be employed within a mixed methods approach and is strong in its statistical capabilities, this method was not suitable for the more exploratory nature of the current study. The Q methodology forces participants to sort cards created prior to researcher-participant interaction, which necessitates a preconceived notion of content that (in this study) was uniquely provided by each participant (see Mammen, Norton, Rhee, & Butz, 2016). The Q methodology task also requires that participants sort the pre-created cards into piles upon a predetermined continuum of characteristics. This tenet of the methodology does not match the research aims of the current

study, which were more exploratory and open to a more interpretive and idiosyncratic completion of the card arranging activity.

The adapted card sorting task does, however, improve greatly upon a traditional interview in that card sorting tasks allow participants tangible indicators for their thoughts, provide structure for systematically thinking about complex ideas, serve to engage the participant and support participant-researcher rapport, allow follow-up questions and explication by pointing to the cards, and ground and focus thoughts and discussion -- promoting an in-depth exploration of participants' perspectives (Mammen et al., 2016). Mammen et al. (2016) utilized cards with content uniquely provided by the participant and a participant-driven sorting system, culminating in a high level of success within their card sorting/interview process. Mammen et al. (2016) identified that efforts toward individualizing and adapting a card sorting task (outside the boundaries of predetermined sorts) can be highly supportive as an interviewing tool, for both research and practice purposes.

#### **2.3.5.2 Audio-Recorded Activity and Interview**

While completing the card arranging activity, (as described above) participants were asked to talk through how they were making sense of their task placement. After the card arranging activity was completed, participants were asked follow-up questions about their thoughts, feelings, experience, rationale, etc. for their task arrangement. Participants were asked to remain on the page with their just-completed task arrangement so that they could view and make reference to it while engaging in the follow-up interview. Participants were permitted (while talking through their placement) to adjust their arrangement as long as the audio recording was still active, and as long as participants explained why they sought to change their arrangement.

During this semi-structured interview portion of the study, participants were asked (not strictly with exact wording, but in general):

1. What were you thinking while you were arranging your tasks?
2. What were you feeling while you were arranging your tasks?
3. Please tell me about how you arranged these tasks, overall, your process/your approach.
4. Do you have any thoughts or feelings you'd like to share about your final arrangement, now that you can look at it holistically?
5. Do you have any thoughts or feelings you'd like to share about any particular task placements, anything that stood out to you?
6. What are your impressions about the task arranging activity itself?
7. Do you have any other comments about this arranging activity or the tasks you arranged during the activity?

At this time, the researcher let the participants know that this was the last time that they would be audio recorded, and so anything they would like to say to be audio recorded, they should say now. When the participants indicated their completion with the audio recording, they then clicked Next to submit their final arrangement and to move on to the next survey page. (also see Appendix G)

The card arranging activity and follow-up discussion were audio-recorded and transcribed, and included in the data record. Care was taken to listen to *how* participants talked about the *required* (*Have to dos*) and *aspired* (*Want to dos*) tasks (during and after the arranging activity), including their language and the valence they used (positive, negative, neutral) when discussing the groupings and any overlap. In addition to language and valence used within



discussions, the number of *required* and *aspired* tasks and the overlapping *Both* group items were recorded and used to examine the discrepancy between caregiver items (i.e., How many items were in each column? Was the *Both* column -- the overlapping space -- used, and to what degree?). Within this activity, the *process* of the arrangement was considered just as important as the final arrangement when characterizing each participant's experience of discrepancy.

Within the qualitative examination, this experience of discrepancy was originally (and only for coding five participant transcripts) characterized by labels of the *existence of evidence for discrepancy* (e.g., the participant overtly mentioned inconsistencies/lack of fit of classroom tasks), the *existence of evidence for no discrepancy* (e.g., the participant overtly mentioned no problems with inconsistencies/fit of classroom tasks), the *absence of evidence for discrepancy* in the classroom (e.g., the participant did not provide evidence indicating that discrepancy exists, but provided no overt evidence to the contrary), and *existence of mixed evidence* (e.g. the participant provided overt evidence supporting both inconsistencies and the lack of inconsistencies).

While utilizing these a priori and proposed codes, it became apparent that the interview content was too nuanced to be labeled and characterized in this way. A decision was made to change the four characterization categories to include: (1) Existence of Evidence for Discrepancy, (2) Existence of Mixed Evidence, (3) Existence of Evidence for Compatibility / Fit, and (4) Not Enough Evidence. Though two of the four newly used codes appear as original a priori codes, the use of the four codes collectively in this way was emergent in nature. The Existence of Evidence for Discrepancy (1) was in utility *Leaning to Discrepancy*, and the use of the code did *not* mean that all codes in the transcript were that of Discrepancy, but many were, and important/exemplary excerpts were indeed coded in this way. The code did maintain its

initial description, *Existence of evidence for discrepancy* (e.g., *the participant overtly mentions inconsistencies/lack of fit of classroom tasks*). Mixed Evidence in this coding context (2) also maintained its initial description, *Existence of mixed evidence* (e.g., *the participant provides overt evidence supporting both inconsistencies and the lack of inconsistencies*). However, the use of this code did *not* mean that all codes in the transcript were Mixed Evidence, but many were, and important/exemplary excerpts were coded in this way, and/or there were a similar number and/or similar importance of codes for Discrepancy and for Compatibility/Fit within the interview transcript. Existence of Evidence for Compatibility / Fit (3) in this context aligns with the original a priori code, "Existence of Evidence for No Discrepancy" (e.g., *the participant overtly mentions no problems with inconsistencies/fit of classroom tasks*); however, this conceptualization is clearer in nature. This code was in utility *Leaning to Compatibility/Fit*, and the use of the code did *not* mean all codes in the transcript were that of Compatibility/Fit, but many were, and important/exemplary excerpts were coded in this way. Not Enough Evidence (4) in this coding context was used when there was not enough evidence to go on to make the call if the interview content was leaning to discrepancy, leaning to compatibility/fit, or if it could be characterized as mixed evidence. This included interview content with no codes or few codes with little evidence from this coding group. The first five transcripts coded with the previous coding scheme were re-coded with this coding group. Additionally, when all coding was completed, the researcher revisited the evidence for each of the characterizations to confirm the initial characterization indicated. If the characterization was changed at this time, rational for the change was noted.

The card arranging activity (pertinent to the construct of discrepancy) and the discussion gave the participant ample opportunity to provide this insight, with the participant categorization

based on evidence for each category entry. The remaining information within the card arranging task and interview provided a contextual and nuanced narrative of the outcomes of the largely exploratory measure, including discussion of constructs of control, dissonance, and discrepancy. Participant emphasis of these perspectives (e.g., a participant who had much to say about how things do not fit together in the classroom) was indicated and detailed within the qualitative narrative. (Please see Results section.)

The final coding scheme for these participant interviews (including a priori and emergent codes) are included, below:

- Sorting Process
  - Difficulty Sorting
  - Ease Sorting
  - Emotions/Feelings
  - Thoughts/Cognitions
  - A Feeling of Subjectivity
  - A Feeling of Objectivity
- Evidence for Four Discrepancy Categories
  - Existence of Evidence for Discrepancy
  - Existence of Mixed Evidence
  - Existence of Evidence for Compatibility / Fit
  - Not Enough Evidence
  - (Eliminated) XX Existence of Evidence for No Discrepancy
  - (Eliminated) XX Absence of Evidence for Discrepancy
- Idiosyncratic Language and Terminology

- Have to Dos / Required
  - Want to Do / Aspired
  - Both
- Valence Words Related to Items/Groups of Items
  - Positive Valence
  - Negative Valence
- The Why Behind (Individual) Card Placements
- Dissonance or Harmony Between Card Items
  - Dissonance, discrepancy, incompatibility, or conflict between card items
  - Harmony, compatibility, or agreement of card items
- Mention of People in Relation to Arrangement
  - Director
  - Coworker
  - Parent
  - Child
  - Assessor
- Comparison / Relationship of Two Items
- The Mention of Control (Or Synonyms/Descriptions)
  - Use of the Word Control
  - Synonym of Control
  - Description of the Construct of Control
- Emergent Codes
  - Not Babysitting

- Use activity for professional development/training
- Changing Mind / Moving Item
- Confused by item numbering
- Disappointed/Confused/Concerned about Sort
- Enjoy
- Have to do because I say I do (different conceptualization)
- Important
- Insight / Aha moment
- Nothing in Want to dos
- Overall Impressions of the Activity
- Overall Rationale for Categories
- Paperwork
- Relationships/Interactions
- Sorting consistent with how I was thinking of 3 groups
- Sorting different than how I was thinking of 3 groups
- Standards/Regulations
- Stress
- Time
- Use of the word Love

### **2.3.5.3 Discrepancy Questionnaire Items**

After participants completed the digital card arranging activity and the follow-up interview (after they mentioned all they wished for the audio recording and submitted their arrangement/clicked Next to move on to the next page), participants completed two discrepancy

questionnaire items ( $\alpha = 0.93$ ;  $N = 44$ ) that inquired directly about caregiver experience of discrepancy, asking, 1) To what degree do the *Have to do* tasks and the *Want to do* tasks compete or conflict with each other? (In other words -- To what degree do the tasks in the *Have to dos box* compete or conflict with the tasks in the *Want to dos box*?) (response options 1-5; Not at all, To a slight degree, To a moderate degree, To a high degree, or To a very high degree), and 2) How much does this impact you? (In other words -- How much does the competing or conflicting of tasks impact you?) (response options 1-5; Not at all, Slightly, Moderately, Very much, or Severely) (see Appendix H)

These two item scores were combined for a total discrepancy score with a range of 2-10. Given the relatively trimodal characteristic of the data distribution (while skewed to the lower end), the discrepancy scores were partitioned into three equivalent categorical levels such that participants with scores of 2-4 were placed into the Low Discrepancy Category, participants with scores of 5-7 were placed into the Moderate Discrepancy Category, and participants with scores of 8-10 were placed in the High Discrepancy Category. These categories were used for examination alongside other categorical data within this study, and to support the determination of the final discrepancy category, alongside the qualitative characterization and the discrepancy activity item placements patterns. These continuous quantitative discrepancy scores were utilized for comparison and analysis with other continuous quantitative data (see Results section).

#### **2.3.5.4 Final Discrepancy Characterization**

Each participant's final discrepancy characterization was proposed to be determined with the consideration of three components: 1) the discrepancy characterization given the qualitative analysis of the interview during and after the discrepancy activity, 2) the number of tasks in each of the Have to do, Want to do, and Both groups from the discrepancy activity, and 3) the score

(and the score's characterization) of the two discrepancy questionnaire items post-activity and interview. This characterization determination was completed with the compiled information of these three data components. Please see the Results section for the rationale and the outcome of the final discrepancy characterizations.

## 2.4 Procedure

The researcher sent the participant a survey link in an email just prior to calling the participant at the scheduled study session time. The email instructed the participant to wait to click the link until she or he was on the phone with the researcher. Upon opening the Qualtrics online survey via the emailed survey link in whatever location she or he chose, the participant listened to the researcher read aloud the consent information (over the phone) while the participant read along visually with the online text, and asked any questions she or he may have had. For those who consented to participate, participants then entered their participant ID number (provided to them by the researcher) into the survey page, and then independently completed the survey items inquiring about professional and center characteristics. Participants then engaged in the Discrepancy Activity, entering the tasks they do while at work, and completing the digital card arrangement of their *required* and the *aspired* tasks while at the same time talking aloud through their thoughts, feelings, and rationale of their task placements. Participants were asked to please remain on the task sorting page after their arrangement was completed. While still able to view their task arrangement, the participant then took part in a follow-up semi-structured interview of her or his task placements and experience with the activity, and answered questions particular to interview targets. An audio recording of the activity (including only the sorting

process and the follow-up interview) was made from the speaker phone audio on the researcher's end of the phone conversation (capturing both the researcher and the participant audio). The online survey system saved an image snapshot of each participant's final digital card arrangement (i.e., their final arrangement at the time she or he clicked *Next* to the page following the task arrangement page). Immediately following the digital card arranging task and follow-up interview, participants completed the two-item questionnaire on their experience of discrepancy in the early care classroom within the online survey.

Upon completion of the card arranging activity, follow-up interview, and two discrepancy question items, participants completed the remaining components of the online survey measure that included 1) the work demands, autonomy and control, and peer support scales of the Perceived Work Characteristics Survey (PWCS), 2) the Perceived Stress Scale (PSS10) measure items, 3) the Center for Epidemiologic Studies Depression Scale Revised (CES-D) measure items, and 4) the Generalized Anxiety Disorder 7-Item (GAD-7) scale measure items. The items assessing experiences of demand, control, support and perceived stress, depression, and anxiety were included in the survey after the Discrepancy Activity, interview, and discrepancy question items to avoid any possible priming effects.

The researcher remained on the phone with each participant for the duration of the study, even while the participant completed the survey items independently (in case there was a participant clarification question asked). Upon completion of the online survey (when the survey had provided a confirmation page of survey submission), participants were debriefed and the required information was obtained in order to send and apply participant payments.



## **3.0 Results**

### **3.1 Research Question 1**

RQ1. Is there a relation between the composition of a professional caregiver's demand-control-support characteristics and her/his mental health and well-being?

a. Is an at-risk DCS composition (i.e., high demand, low control, low support) associated with a higher frequency/greater severity of professional caregiver issues of mental health and well-being, as compared with other groups?

b. Is a not at-risk DCS composition (i.e., any composition with low demand) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being, as compared with other groups?

c. Is a buffered risk DCS composition (i.e., any composition with high demand, and at least one buffering component of high control or support) associated with a lower frequency/severity of professional caregiver issues of mental health and well-being than observed in the at-risk group?

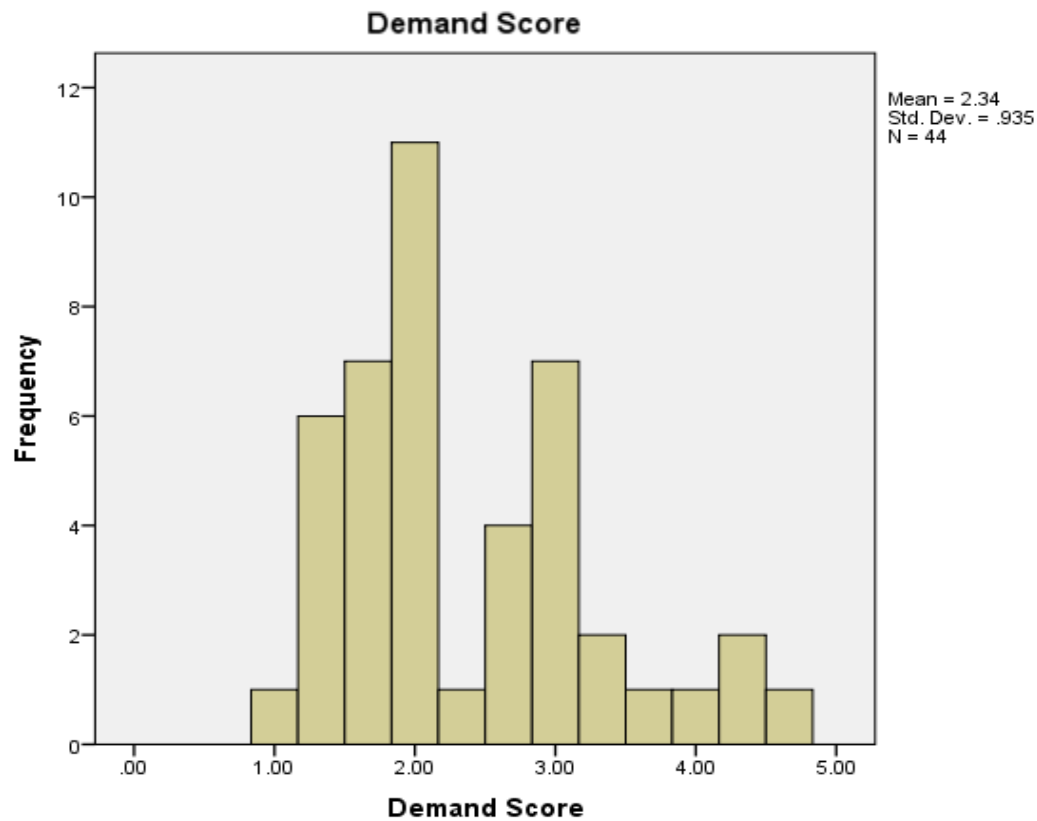
#### **3.1.1 Early Care and Education Workplace Experience**

##### **3.1.1.1 Participant Perceptions of Demand, Control, and Support**

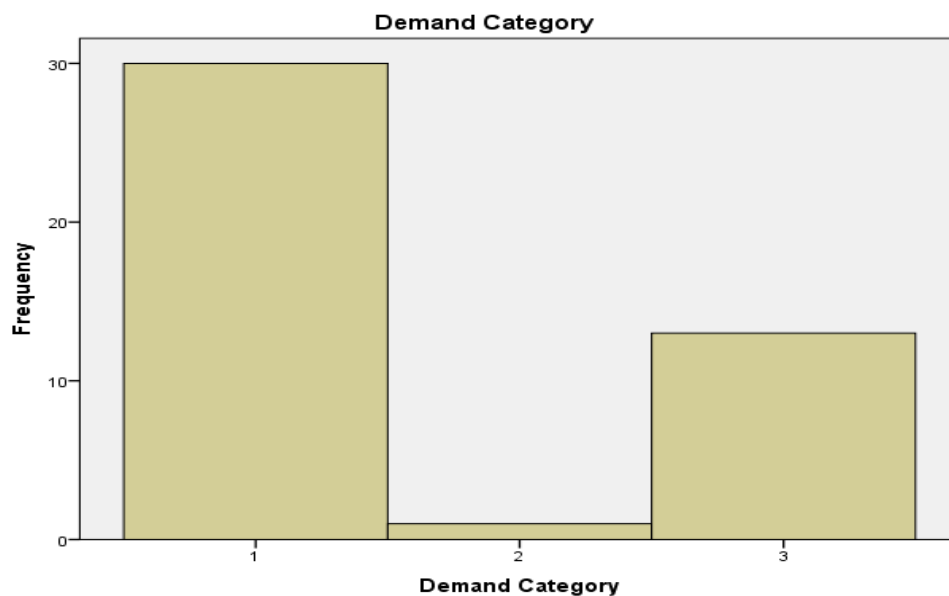
Descriptive analysis was completed for the quantitative perception scores of demand, control, and support, with response options for all three scores on a scale of 1-5, where a higher score is reflective of higher levels of each component. In addition, frequency analysis was completed for perception scores partitioned into categories of lower (scores less than 3),

moderate (scores exactly 3), and higher (scores greater than 3) for each of the three perception scores. (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average Demand score of 2.34 ( $SE = 0.14$ ;  $SD = 0.93$ ), with a minimum score of 1 and a maximum score of 4.67. Thirty participants (the majority, 68.2%) fell into the Lower Demand Category, 1 participant (2.3%) fell into the Moderate Demand Category, and 13 participants (29.5%) fell into the Higher Demand Category. (see Figure 4 and Figure 5)



**Figure 4 Demand Score**



- 1 = "Lower Demand Category (Less than 3)"  
 2 = "Moderate Demand Category (Exactly 3)"  
 3 = "Higher Demand Category (Greater than 3)"

**Figure 5 Demand Category**

Participants ( $n=44$ ) reported an average Control score of 3.15 ( $SE = 0.11$ ;  $SD = 0.76$ ), with a minimum score of 1 and a maximum score of 5. Fourteen participants (31.8%) fell into the Lower Control Category, 3 participants (6.8%) fell into the Moderate Control Category, and 27 participants (the majority, 61.4%) fell into the Higher Control Category. (see Figure 6 and Figure 7)

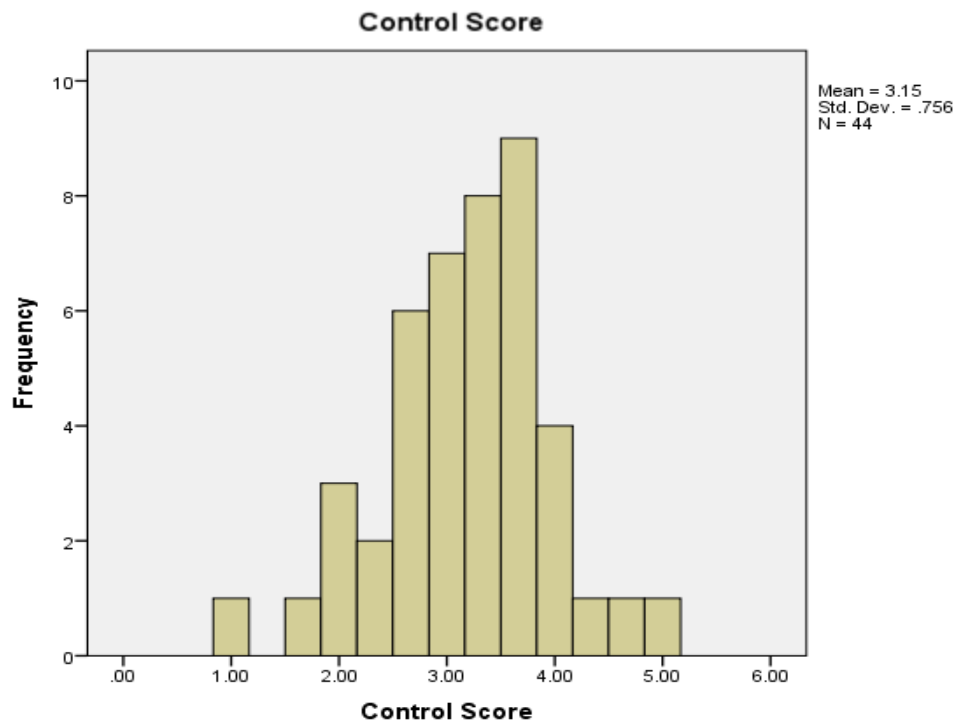
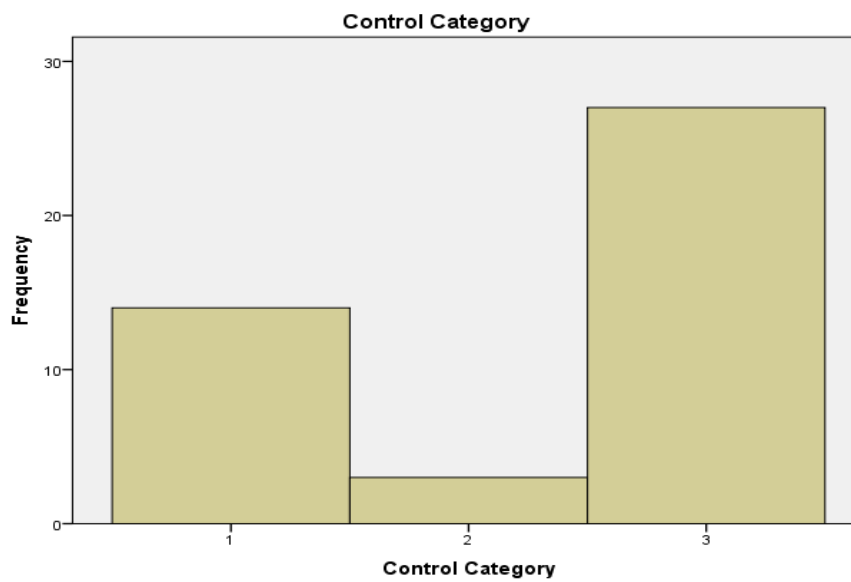


Figure 6 Control Score



- 1 = "Lower Control Category (Less than 3)"
- 2 = "Moderate Control Category (Exactly 3)"
- 3 = "Higher Control Category (Greater than 3)"

Figure 7 Control Category

Participants ( $n=44$ ) reported an average Support score of 3.78 ( $SE = 0.11$ ;  $SD = 0.71$ ), with a minimum score of 1.88 and a maximum score of 5. Five participants (11.4%) fell into the Lower Support Category, 2 participants (4.5%) fell into the Moderate Support Category, and 37 participants (the majority, 84.1%) fell into the Higher Support Category. (see Figure 8 and Figure 9)

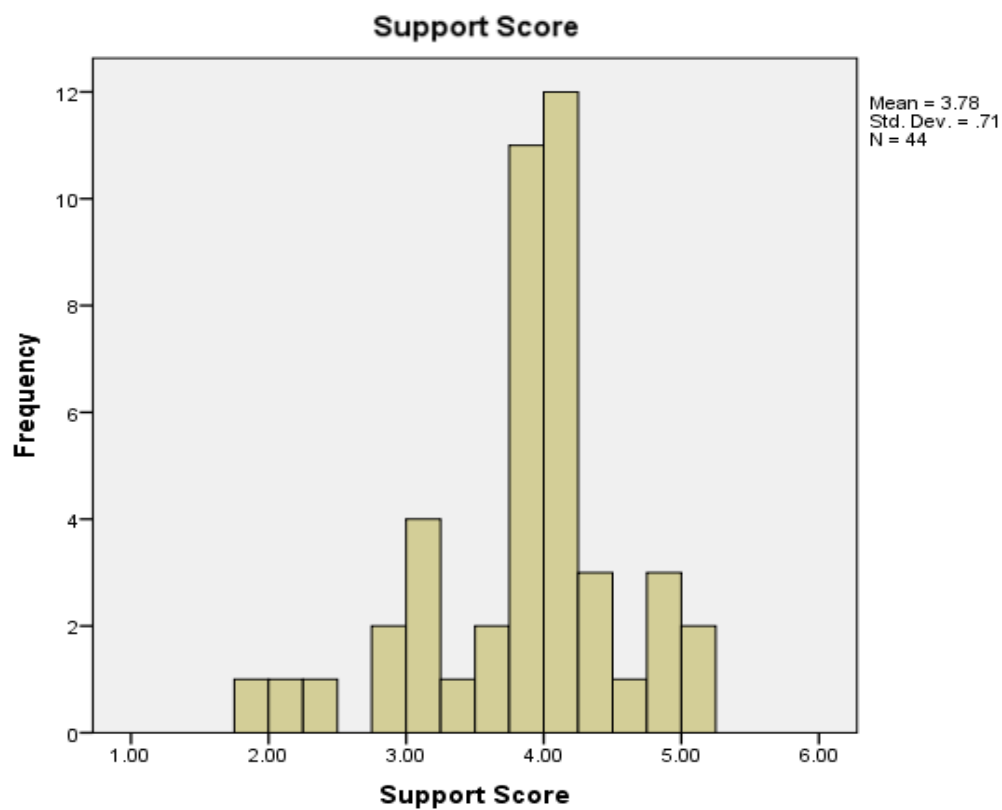
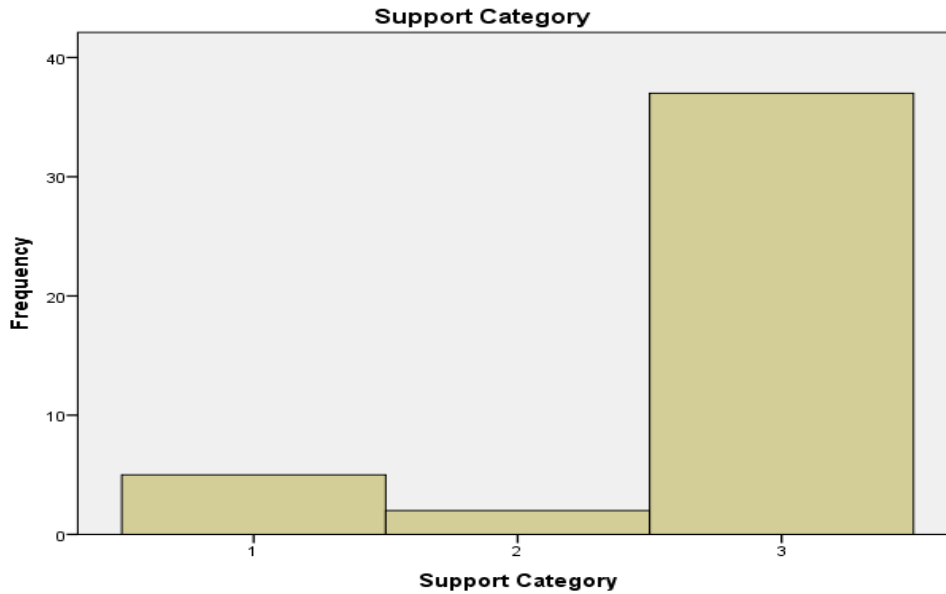


Figure 8 Support Score



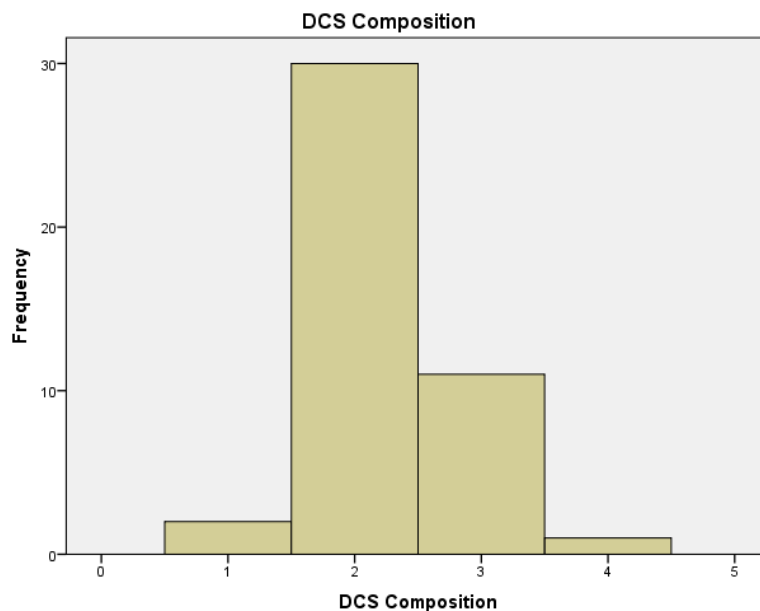
- 1 = "Lower Support Category (Less than 3)"
- 2 = "Moderate Support Category (Exactly 3)"
- 3 = "Higher Support Category (Greater than 3)"

**Figure 9 Support Category**

### **3.1.1.2 The Composition of Demand, Control, and Support**

More important than each component on its own (based on the theoretical model) is each participant's *composition* of the three demand, control, support components and the implications of those compositions, thus the frequency of each composition characterization was examined (see Methods section for composition characterization rationale). Two participants (4.5%) exhibited a composition characterized as At-Risk, presenting with higher demand, lower or moderate control, and lower or moderate support. Thirty participants (the majority, 68.2%) exhibited a composition characterized as Not At-Risk, presenting with lower demand, and any level of control and support. Eleven participants (25%) exhibited a composition characterized as Buffered Risk, presenting with higher demand, higher control or higher support, and any level of the remaining component. One participant (2.3%) exhibited a composition characterized as

Ambiguous Risk, presenting with moderate level(s) of demand, control, support characteristics that do not fall into another of the categories. (see Figure 10)

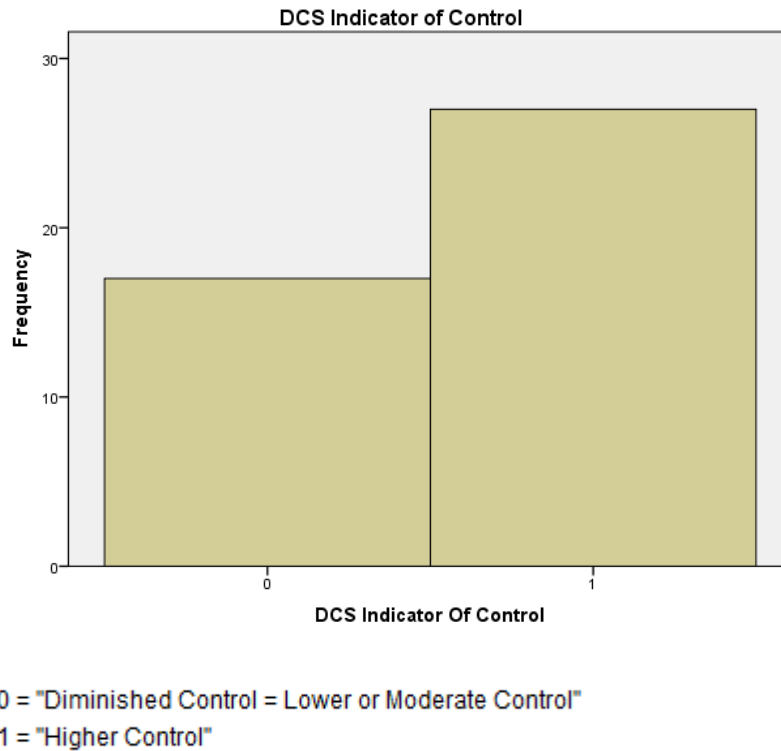


- 1 = "At risk = Higher demand, lower/moderate control, lower/moderate support"
- 2 = "Not at-risk = Lower demand, any level control and support"
- 3 = "Buffered risk = Higher demand, Higher control OR Higher support, any level of the other"
- 4 = "Ambiguous risk = Moderate level(s) of DCS characteristics that do not fall into another category"

**Figure 10 DCS Composition Category**

### 3.1.1.3 Participant Indicator of Control

Given a priori instructions, participant demand, control, support characterizations were also given an Indicator of Control, such that those falling within the lower or moderate levels of control were identified as exhibiting Diminished Control. Seventeen participants (38.6%) exhibited this Diminished Control, while 27 participants (the majority, 61.4%) exhibited scores indicative of Higher Control. (see Figure 11)



**Figure 11 DCS Indicator of Control**

### **3.1.2 Professional Caregiver Mental Health and Well-Being**

#### **3.1.2.1 Global Psychological Stress**

Descriptive analysis was completed for quantitative scores of participant global psychological stress (measured with the PSS10), with response options on a scale of 0-40, where a higher score is reflective of higher levels of global psychological stress. In addition, frequency analysis was completed for PSS10 scores partitioned into categories of Lower PSS10 Category (scores 0-13), Moderate PSS10 Category (scores 14-26), and Higher PSS10 Category (scores 14-26). (Please see Methods section for partitioning rationale.)

Participants (n=44) reported an average PSS10 score of 17.32 (SE = 1.08; SD = 7.16), with a minimum score of 5 and a maximum score of 34. Sixteen participants (36.4%) fell into the



Lower PSS10 Category, 24 participants (the majority, 54.5%) fell into the Moderate PSS10 Category, and 4 participants (9.1%) fell into the Higher PSS10 Category. (see Figure 12 and Figure 13)

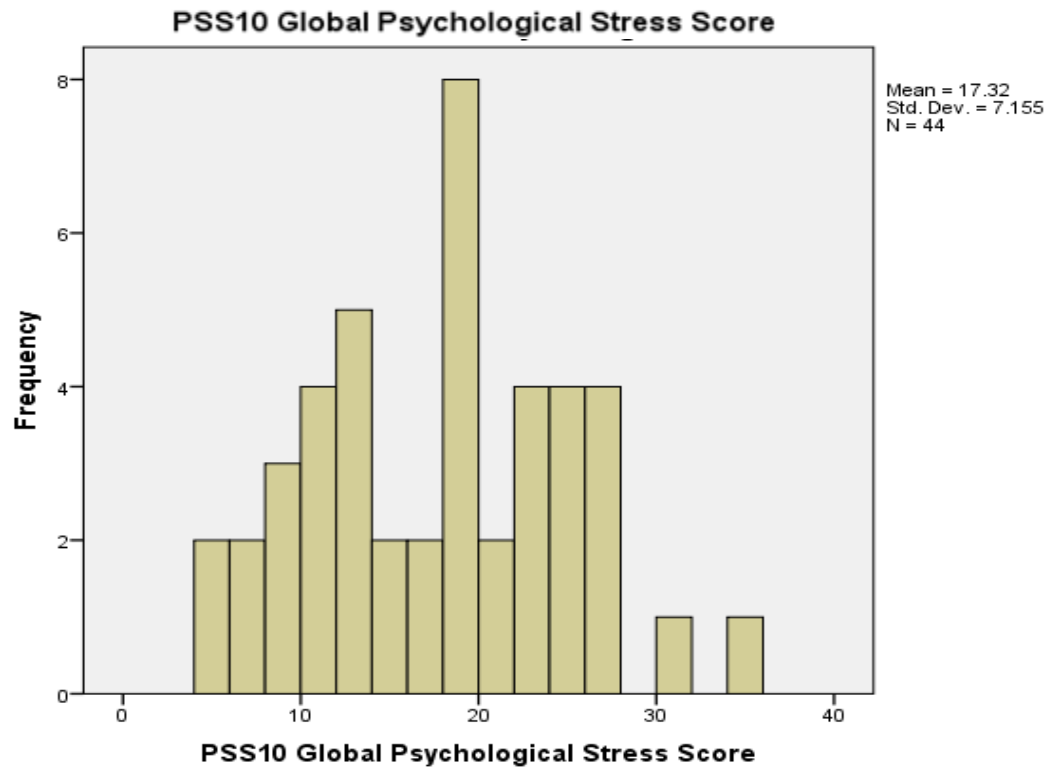
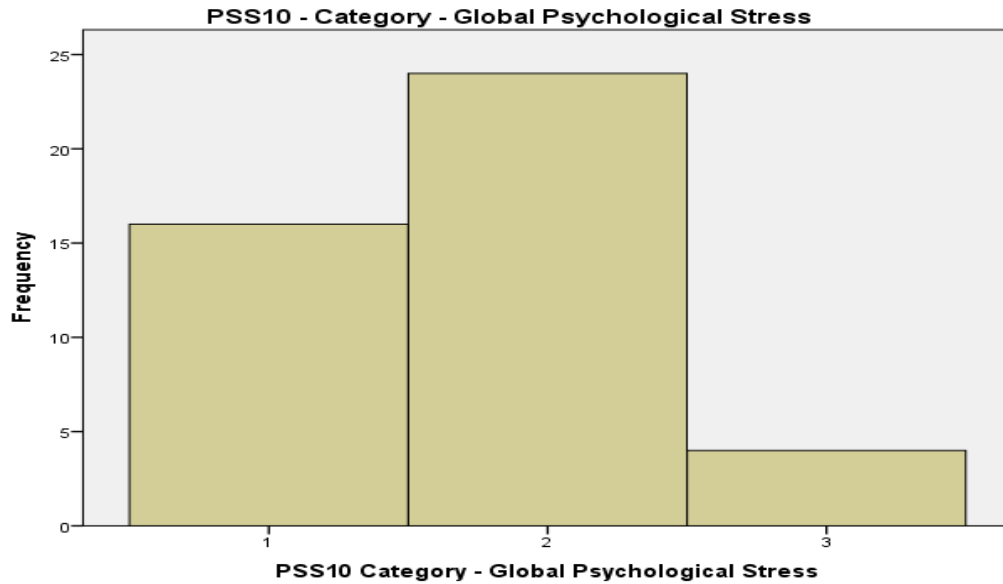


Figure 12 PSS10 Global Psychological Stress Score



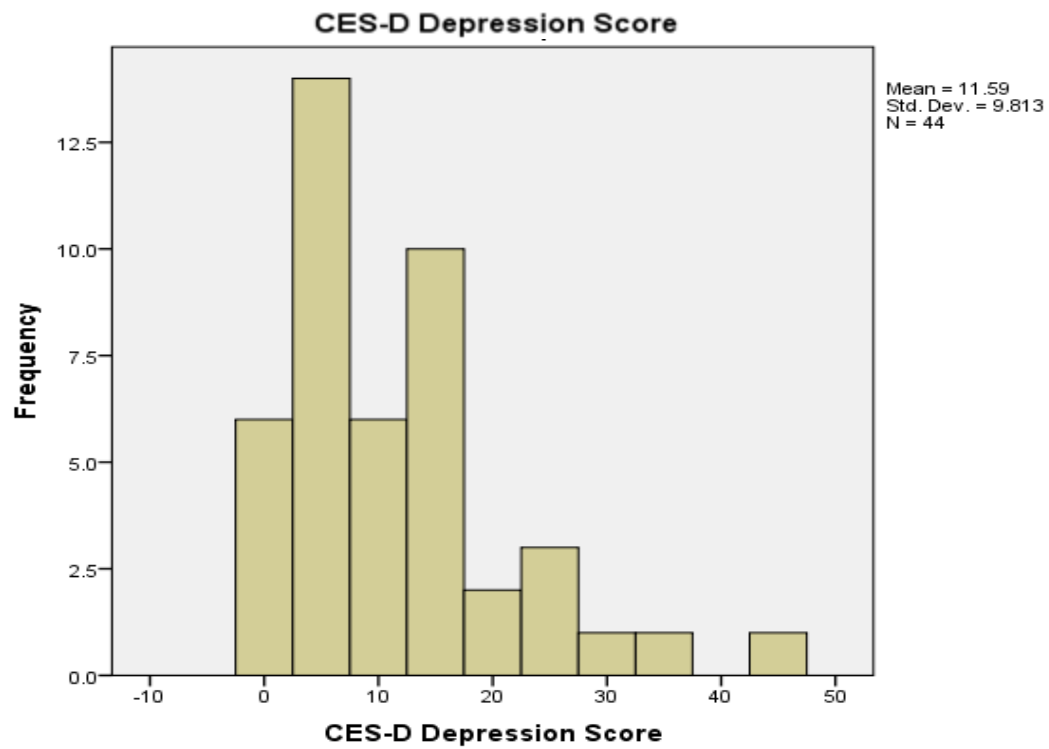
1 = "Lower PSS10 Category (0-13)"  
 2 = "Moderate PSS10 Category (14-26)"  
 3 = "Higher PSS10 Category (27-40)"

**Figure 13 PSS10 Global Psychological Stress Category**

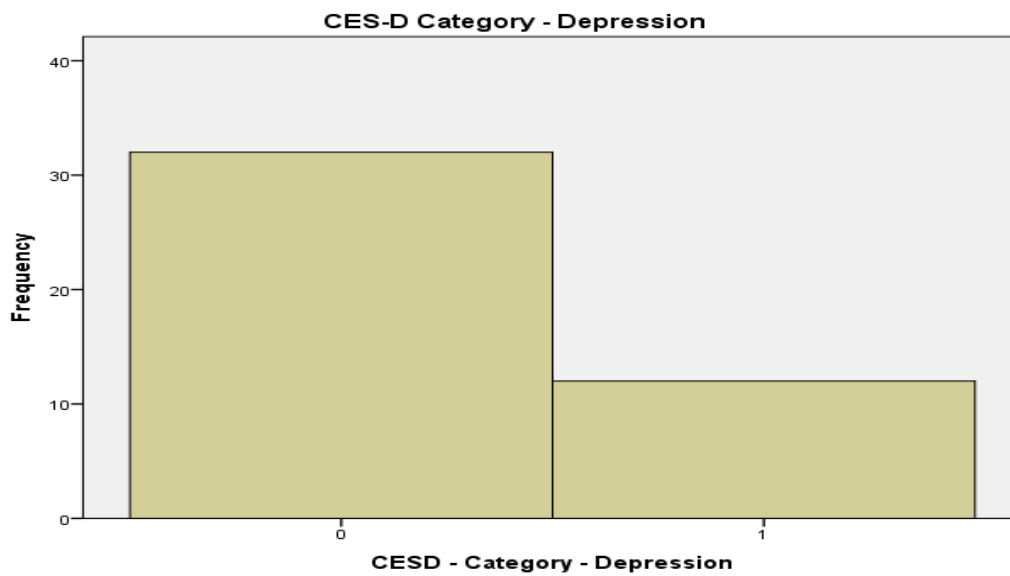
### 3.1.2.2 Depression

Descriptive analysis was completed for quantitative scores of participant depression (measured with the CES-D), with response options on a scale of 0-60, where a higher score is reflective of higher levels of depression. In addition, frequency analysis was completed for CES-D scores partitioned into categories of Depression Symptomology Absent (scores 0-15) and Depression Symptomology Present (scores 16-60). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average CES-D score of 11.59 ( $SE = 1.48$ ;  $SD = 9.81$ ), with a minimum score of 0 and a maximum score of 47. Thirty-two participants (the majority, 72.7%) fell into the Depression Symptomology Absent category, and 12 participants (27.3%) fell into the Depression Symptomology Present category. (see Figure 14 and Figure 15)



**Figure 14 CES-D Depression Score**



0 = "Depression symptomology absent (0-15)"  
1 = "Depression symptomology present (16-60)"

**Figure 15 CES-D Depression Category**

### 3.1.2.3 Anxiety

Descriptive analysis was completed for quantitative scores of participant anxiety (measured with the GAD-7), with response options on a scale of 0-21 -- where a higher score is reflective of higher levels of anxiety. In addition, frequency analysis was completed for GAD-7 scores partitioned into categories of Minimal AND Mild GAD Category (scores 0-9), Moderate GAD category (scores 10-14), and Severe GAD Category (scores 15-21). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average GAD-7 score of 5.25 ( $SE = 0.74$ ;  $SD = 4.89$ ), with a minimum score of 0 and a maximum score of 18. Thirty-five participants (the majority, 79.5%) fell into the Minimal AND Mild GAD Category, 6 participants (13.6%) fell into the Moderate GAD Category, and 3 participants (6.8%) fell into the Severe GAD Category. (see Figure 16, Figure 17, and Figure 18)

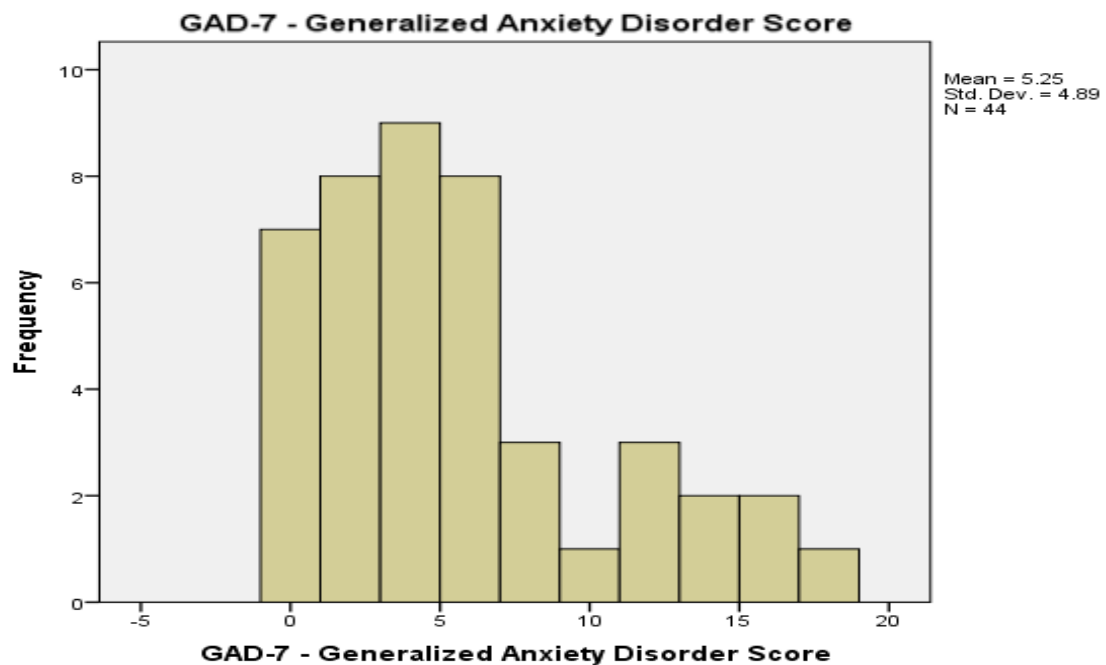
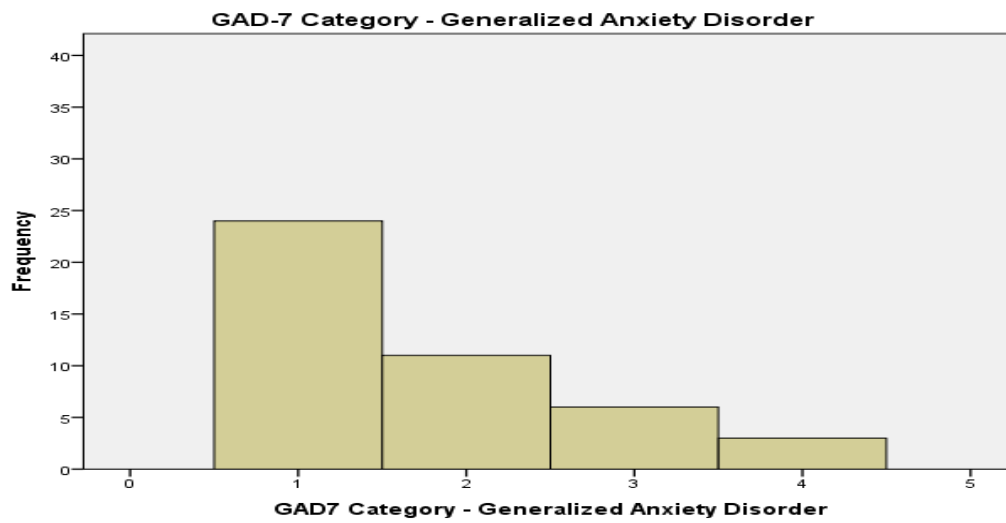
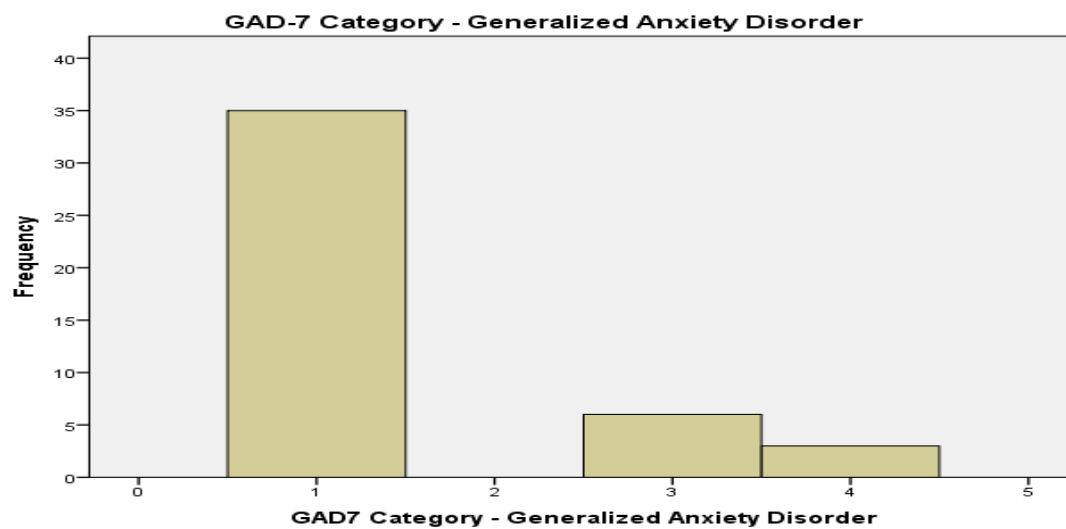


Figure 16 GAD-7 Generalized Anxiety Disorder Score



- 1 = "Minimal GAD Category (0-4)"
- 2 = "Mild GAD Category (5-9)"
- 3 = "Moderate GAD Category (10-14)"
- 4 = "Severe GAD Category (15-21)"

**Figure 17 GAD-7 Generalized Anxiety Disorder Category 1**



- 1 = "Minimal AND Mild GAD Category (0-9)"
- 3 = "Moderate GAD Category (10-14)"
- 4 = "Severe GAD Category (15-21)"

**Figure 18 GAD-7 Generalized Anxiety Disorder Category 2**

### 3.1.2.4 Correlation Across Scores of Mental Health and Well-Being

Results of Pearson correlations indicated that 1) there was a significant positive association between global psychological stress score and depression score, ( $r(42) = .79, p < .001$ ); 2) there was a significant positive association between global psychological stress score and anxiety score, ( $r(42) = .67, p < .001$ ); and 3) there was a significant positive association between depression score and anxiety score, ( $r(42) = .76, p < .001$ ).

### 3.1.3 Relations: Composition of Demand-Control-Support and Mental Health and Well-Being

#### 3.1.3.1 Frequencies and Patterns: DCS and Global Psychological Stress

When examining categorically participant demand-control-support compositions and levels of global psychological stress, there exist expected frequencies of  $<5$  in 9 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 4), a significant result, (two-sided)  $FE = 15.49; p = .004$ , tells us that we should reject the null hypothesis that there is no association between DCS composition and participants' global psychological stress. Thus, we can conclude that there exists a significant relation between these two variables.

**Table 4 RQ1 Demand, Control, Support and Global Psychological Stress**

	Low Global Psychological Stress (Lower PSS10 Category, 0-13)	Moderate Global Psychological Stress (Moderate PSS10 Category, 14-26)	High Global Psychological Stress (Higher PSS10 Category, 27-40)	Total
*DCS At-risk Higher demand, lower/moderate control, lower/moderate support	0	1	1	2

DCS Not at-risk Lower demand, any level of control and support	15	15	0	30
DCS Buffered risk Higher demand, higher control OR higher support, any level of the other	1	7	3	11
DCS Ambiguous risk Moderate level(s) of DCS characteristics that do not fall into another category	0	1	0	1
Total	16	24	4	44

In visually examining the frequency patterns, one of the two participants categorized as At-risk presented with higher global psychological stress (the other moderate), and no participants categorized as At-Risk presented with lower global psychological stress. In addition, 15 of the 30 participants categorized as Not At-Risk presented with lower global psychological stress (the remaining, moderate), and no participants categorized as Not At-Risk presented with higher global psychological stress. For those categorized as Buffered Risk, the majority of the 11 participants fell into the moderate stress category (7 participants), and though the three presenting with higher global psychological stress in this group were not buffered from this stressful experience, one participant who had reported high demand was indeed buffered, presenting with lower global psychological stress. The one participant categorized as Ambiguous Risk presented with moderate global psychological stress. (see Table 4)

### 3.1.3.2 Frequencies and Patterns: DCS and Depression

When examining categorically participant demand-control-support compositions and levels of depression, there exist expected frequencies of  $<5$  in 5 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 5), a

significant result, (two-sided)  $FE = 10.75$ ;  $p = .004$ , tells us that we should reject the null hypothesis that there is no association between DCS composition and participants' depression symptomology. Thus, we can conclude that there exists a significant relation between these two variables.

**Table 5 RQ1 Demand, Control, Support and Depression**

	Depression Absent (Depression Symptomology Absent, CES-D, 0-15)	Depression Present (Depression Symptomology Present, CES-D, 16-60)	Total
*DCS At-risk Higher demand, lower/moderate control, lower/moderate support	1	1	2
DCS Not at-risk Lower demand, any level of control and support	26	4	30
DCS Buffered risk Higher demand, higher control OR higher support, any level of the other	4	7	11
DCS Ambiguous risk Moderate level(s) of DCS characteristics that do not fall into another category	1	0	1
Total	32	12	44

In visually examining the frequency patterns, one of the two participants categorized as At-Risk presented with depression symptomology, though the other participant categorized as At-Risk did not -- which is positive though counter to the hypothesized groupings. However, more consistent with what was hypothesized, 26 of the 30 participants categorized as Not At-Risk presented without depression symptomology, though four of the participants categorized in this Not At-Risk group presented with depression symptomology. For those categorized as Buffered Risk, buffering wasn't greatly apparent for depression, as only four of the eleven participants in this group were buffered from experiencing depression symptomology. The one



participant categorized as Ambiguous Risk did not present with depression symptomology. (see Table 5)

### 3.1.3.3 Frequencies and Patterns: DCS and Anxiety

When examining categorically participant demand-control-support compositions and levels of anxiety, there exist expected frequencies of  $<5$  in 10 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 6), a significant result, (two-sided)  $FE = 17.48$ ;  $p = .002$ , tells us that we should reject the null hypothesis that there is no association between DCS composition and participants' anxiety. Thus, we can conclude that there exists a significant relation between these two variables.

**Table 6 RQ1 Demand, Control, Support and Anxiety**

	Minimal AND Mild Anxiety (Minimal AND Mild GAD Category, 0-9)	Moderate Anxiety (Moderate GAD Category, 10-14)	Severe Anxiety (Severe GAD Category, 15-21)	Total
*DCS At-risk Higher demand, lower/moderate control, lower/moderate support	0	1	1	2
DCS Not at-risk Lower demand, any level of control and support	28	2	0	30
DCS Buffered risk Higher demand, higher control OR higher support, any level of the other	6	3	2	11
DCS Ambiguous risk Moderate level(s) of DCS characteristics that do not fall into another category	1	0	0	1
Total	35	6	3	44

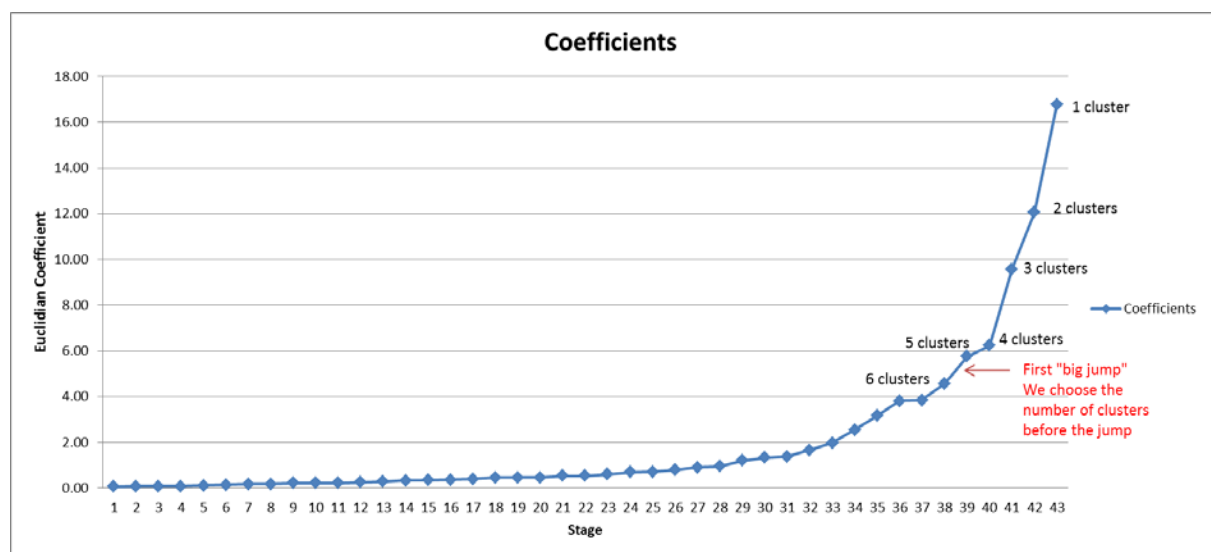
In visually examining the frequency patterns, one of the two participants categorized as At-risk presented with severe anxiety (the other moderate), and no participants categorized as At-Risk presented with minimal/mild anxiety. In addition, 28 of the 30 participants categorized as Not At-Risk presented with minimal/mild anxiety (the other 2 moderate), and no participants categorized as Not At-Risk presented with severe anxiety. For those categorized as Buffered Risk, the majority of the 11 participants fell into the minimal/mild anxiety category (6 participants), and were indeed buffered from high demand. However, two participants presenting with severe anxiety (and 3 presenting with moderate anxiety) in this group were not buffered from this experience of anxiety. The one participant categorized as Ambiguous Risk presented with minimal/mild anxiety. (see Table 6)

#### **3.1.3.4 Continuous Scores: DSC and Global Psychological Stress, Depression, and Anxiety**

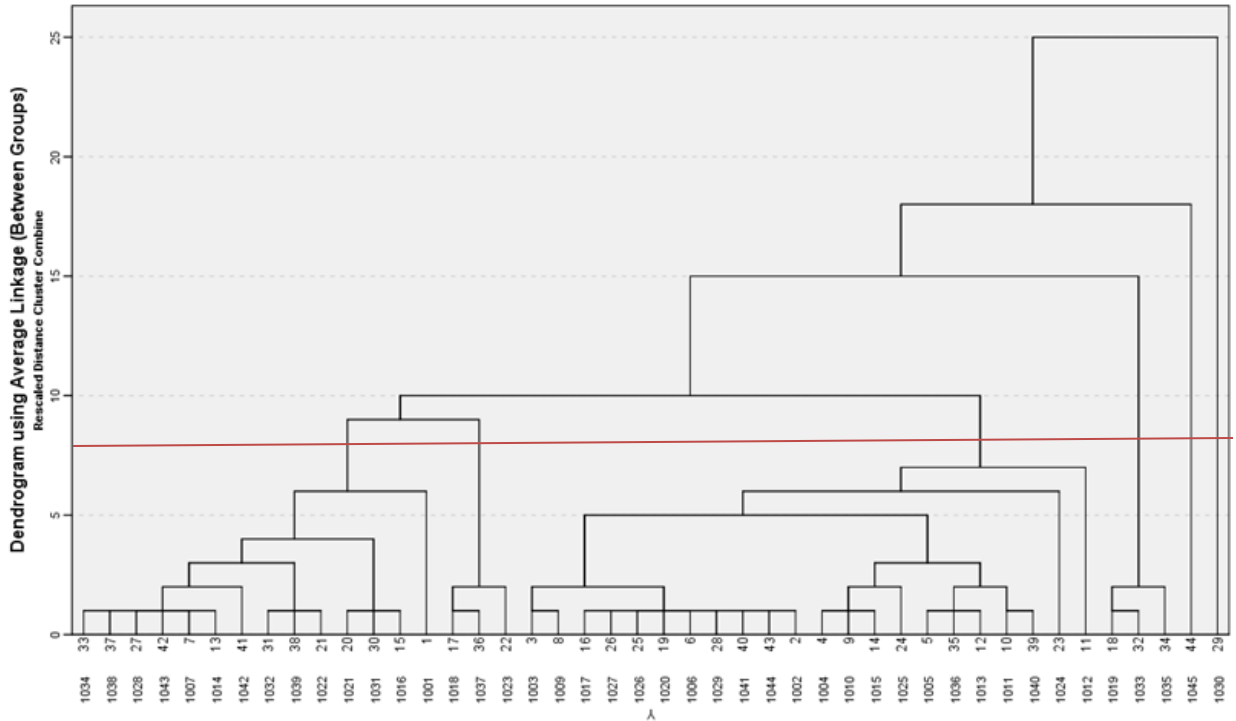
Results of Pearson correlations indicated that there was a significant positive association between quantitative demand scores and all three measures of mental health and well-being: 1) global psychological stress score, ( $r(42) = .52, p < .001$ ); 2) depression, ( $r(42) = .59, p < .001$ ); and 3) anxiety, ( $r(42) = .52, p < .001$ ). Support scores were significantly (and negatively) associated with only the anxiety measure scores ( $r(42) = -.44, p = .003$ ), while control scores were not significantly associated with any of the three measures of mental health and well-being. However, we must then ask: Do the features of control and support buffer these associations when all three elements of demand, control, and support are combined into an individual participant composition?

A between-subjects linkage hierarchical clustering analysis was completed for the three continuous demand, control, and support scores in order to determine the best statistical groupings for participants. The analysis was completed using squared Euclidian distance as the

interval coefficient, and standardizing the DCS to z-scores so that the variables were equally weighted and on the same scale. Inspection of both the scree plot of the coefficients by stage of the agglomeration schedule and the clustering dendrogram provide support for 6 clusters as the best cluster solution for the three DCS scores (see Figure 19 and Figure 20) (University of Nebraska-Lincoln, n.d.; Wuensch, 2016; Yim & Ramdeen, 2015). This determination is not exact in nature, but uses available information to make an informed decision for the best number of clusters.



**Figure 19 Euclidian Coefficients: Choice of Number of Clusters for DCS Variables**



**Figure 20 Dendrogram of Clusters for DCS Variables**

For the agglomeration schedule coefficients, the best cluster solution is that just prior to a large increase between coefficients. Although there is a very large increase ( $>3$ ) between clusters 4 and 3, the “first noticeable increase” can be argued to fall between 6 and 5 (the first jump  $>1$ ), for which the decision would fall to the number of clusters *before* the jump (i.e., 6 clusters) (see Figure 19) (Yim & Ramdeen, 2015, p.14). The spacing/gaps of the dendrogram can also be argued to support this 6-cluster solution. (see Figure 20)

Based on the demand scores, the control scores, and the support scores, the 6-cluster solution placed 14 participants in Group 1, 22 participants in Group 2, 3 participants in Group 3, 3 participants in Group 4, and 1 participant each in Group 5 and Group 6 (making up her or his own cluster). Each of the three scores (demand, control, and support) showed a significant difference among the 6 groups (demand,  $F(5) = 24.49$ ,  $p < .000$ ; control,  $F(5) = 8.59$ ,  $p < .000$ ;

support,  $F(5) = 23.87, p < .000$ ), supporting the argument for the differences between the created clusters.

Participants in Group 1 ( $N=14$ ) presented with mean demand score of 3.37 ( $SD = .54$ ), a mean control score of 3.33 ( $SD = .42$ ), and a mean support score of 3.51 ( $SD = .43$ ). These participants could be characterized as having a higher characterization (however all between 3.01 and 4) across each of the three mean demand, control, and support scores. The following participants fell into Group 1: 1001, 1007, 1014, 1016, 1021, 1022, 1028, 1031, 1032, 1034, 1038, 1039, 1042, 1043.

Participants in Group 2 ( $N=22$ ) presented with mean demand score of 1.77 ( $SD = .48$ ), a mean control score of 3.00 ( $SD = .64$ ), and a mean support score of 4.08 ( $SD = .34$ ). These participants could be characterized as having lower average demand scores, moderate average control scores, and higher average support scores. The following participants fell into Group 2: 1002, 1003, 1004, 1005, 1006, 1009, 1010, 1011, 1012, 1013, 1015, 1017, 1020, 1024, 1025, 1026, 1027, 1029, 1036, 1040, 1041, and 1044.

Participants in Group 3 ( $N=3$ ) presented with mean demand score of 2.22 ( $SD = .25$ ), a mean control score of 3.00 ( $SD = .33$ ), and a mean support score of 2.33 ( $SD = .38$ ). These participants could be characterized as having lower average demand scores, moderate average control scores, and lower average support scores. Participants 1018, 1023, and 1037 fell into this group.

Participants in Group 4 ( $N=3$ ) presented with mean demand score of 1.50 ( $SD = .29$ ), a mean control score of 4.61 ( $SD = .35$ ), and a mean support score of 4.83 ( $SD = .14$ ). These participants could be characterized as having lower average demand scores, higher average



















control scores, and higher average support scores. Participants 1019, 1033, and 1035 fell into this group.

The participant in Group 5 ( $N=1$ ) presented with a demand score of 4.33, a control score of 2.17, and a support score of 1.88. This participant could be characterized as having a higher demand score, a lower control score, and a lower support score. Participant 1030 fell into Group 5.

The participant in Group 6 ( $N=1$ ) presented with a demand score of 1.67, a control score of 1.00, and a support score of 4.25. This participant could be characterized as having a lower demand score, a lower control score, and a higher support score. Participant 1045 fell into Group 6.

Please see Table 7 for a visual look at the characteristics of the clusters (based on this study's determined cut points), clustering which provides 6 groups with overtly different DCS characteristics.

**Table 7 RQ1 Cluster Analysis, DCS Characteristics**

	Group 1 ( $N=14$ )	Group 2 ( $N=22$ )	Group 3 ( $N=3$ )	Group 4 ( $N=3$ )	Group 5 ( $N=1$ )	Group 6 ( $N=1$ )
Demand	Higher 	Lower 	Lower 	Lower 	Higher 	Lower 
Control	Higher 	Moderate 	Moderate 	Higher 	Lower 	Lower 
Support	Higher 	Higher 	Lower 	Higher 	Lower 	Higher 

Grayscale Key:



= Green



= Yellow



= Red

### 3.1.3.5 Clustered Groups and Participant Mental Health and Well-Being

The 6 statistically created groups were utilized to examine the relation between DCS scores (continuous scores clustered into groups statistically) and participant mental health and well-being. One-way ANOVA using the 6 clusters indicated significant differences among the 6 groups with regard to all three of the measures of mental health and well-being.

Results indicated a significant difference among the 6 groups for participant Global Psychological Stress score (PSS10),  $F(5) = 4.64$ ,  $p = .002$ . Average PSS10 scores for each of the 6 groups are as follows: Group 1 ( $N=14$ ),  $M=22.29$  ( $SD = 6.86$ ); Group 2 ( $N=22$ ),  $M=16.23$  ( $SD=5.67$ ); Group 3 ( $N=3$ ),  $M=11.00$  ( $SD=5.57$ ); Group 4 ( $N=3$ ),  $M=10.33$  ( $SD=3.22$ ); Group 5 ( $N=1$ ),  $PSS10 = 24.00$ ; Group 6 ( $N=1$ ),  $PSS10 = 5.00$ .





































Results indicated a significant difference among the 6 groups for participant depression score (CES-D),  $F(5) = 4.91$ ,  $p = .001$ . Average CES-D scores for each of the 6 groups are as follows: Group 1 ( $N=14$ ),  $M=19.93$  ( $SD=11.84$ ); Group 2 ( $N=22$ ),  $M=8.32$  ( $SD=5.19$ ); Group 3 ( $N=3$ ),  $M=8.33$  ( $SD=7.57$ ); Group 4 ( $N=3$ ),  $M=2.67$  ( $SD=2.08$ ); Group 5 ( $N=1$ ),  $CES-D = 15.00$ ; Group 6 ( $N=1$ ),  $CES-D = 0.00$ .

Results indicated a significant difference among the 6 groups for participant anxiety score (GAD-7),  $F(5) = 3.51$ ,  $p = .010$ . Average GAD-7 scores for each of the 6 groups are as follows: Group 1 ( $N=14$ ),  $M=8.14$  ( $SD=5.86$ ); Group 2 ( $N=22$ ),  $M=3.73$  ( $SD=2.75$ ); Group 3 ( $N=3$ ),  $M=6.67$  ( $SD=7.02$ ); Group 4 ( $N=3$ ),  $M=.67$  ( $SD=.577$ ); Group 5 ( $N=1$ ),  $GAD7=13.00$ ; Group 6 ( $N=1$ ),  $GAD7=0.00$ .

This provides evidence for the association between the DCS characteristics viewed in combination (and not individually) and professional caregiver mental health and well-being.

Please see Table 8 to view how these group scores of mental health and well-being relate to the DCS statistically derived groups (based on this study's determined cut points)

**Table 8 RQ1 Cluster Analysis, DCS Characteristics and Professional Caregiver Mental Health and Well-Being**

	Group 1 (N=14)	Group 2 (N=22)	Group 3 (N=3)	Group 4 (N=3)	Group 5 (N=1)	Group 6 (N=1)
Demand	Higher 	Lower 	Lower 	Lower 	Higher 	Lower 
Control	Higher 	Moderate 	Moderate 	Higher 	Lower 	Lower 
Support	Higher 	Higher 	Lower 	Higher 	Lower 	Higher 
Psychological Stress	Group 1 M=22.29 Moderate Stress 	Group 2 M=16.23 Moderate Stress 	Group 3 M=11.00 Lower Stress 	Group 4 M=10.33 Lower Stress 	Group 5 PSS10 = 24.00 Moderate Stress 	Group 6 PSS10 = 5.00 Lower Stress 
Depression	Group 1 M=19.93 Depression Present 	Group 2 M=8.32 Depression Absent 	Group 3 M=8.33 Depression Absent 	Group 4 M=2.67 Depression Absent 	Group 5 CES-D = 15.00 (At the high limit for Depression Absent) 	Group 6 CES-D = 0.00 Depression Absent 
Anxiety	Group 1 M=8.14 Lower Anxiety 	Group 2 M=3.73 Lower Anxiety 	Group 3 M=6.67 Lower Anxiety 	Group 4 M=.67 Lower Anxiety 	Group 5 GAD7= 13.00 Moderate Anxiety 	Group 6 GAD7= 0.00 Lower Anxiety 

Grayscale Key:



= Green



= Yellow



= Red



## **3.2 Research Question 2**

RQ 2. Do professional caregivers experience a discrepancy between required and aspired tasks when caring for children in the classroom?

- a. How do professional caregivers make sense of the required and aspired tasks in the child care context?
- b. What language, terminology, and valence do caregivers use when discussing required and aspired tasks?

### **3.2.1 Qualitative Narrative of Nuance and Complexity: Key Themes Within Codes, Across Participants**

#### **3.2.1.1 A Priori Codes: Sorting Process**

During and following the discrepancy activity, participants, at times, noted their experiences of the activity with regard to a feeling of ease or difficulty sorting, feelings of subjectivity or objectivity, emotions or feelings, thoughts or cognitions, and for a placement or placements. This information illustrates the process features and the nuance behind the submitted *have to do*, *want to do*, and *both* task placement snapshots. (For the complete content list of *have to do*, *want to do*, and *both* tasks submitted by participants, please see Appendices I, J, and K.)

##### **3.2.1.1.1 Difficulty Sorting vs. Ease Sorting**

Some participants found themselves wrestling with the choice of where to place certain tasks and verbally expressed this. The struggle seemed to emanate at times from conflicting classroom and center roles and rules, efforts to go above and beyond what is required, as well as

internal deliberation around the value of certain tasks and for whom they have an impact (often the children in their care). This difficulty shows that placements were not always straightforward, and that nuance and complexity played a part in how caregivers made sense of the tasks they do while at work.

*P: Um... I don't know. I guess the want tos. Those are a little tough for me, cuz again like I said, the center is some... the, what the center wants me to do, and I know this...is often different than what my lead teacher wants me to do. And there's often a little bit of conflict, where you know, I don't really, I'm kind of torn...I want to make sure everyone's happy but I also want to make sure I'm doing things right. So a lot of the want to sections are, are like that. Um. The implementing lesson plans. Uh, where did I put that one...that's in both and that's another one. I know that I'm supposed to be helping with the lesson plans and I like implementing them, but I don't like doing it the way that I am, suppo... that my lead teacher wants me to do it. So I ki, I put it under both, but that one's a little more complicated.*

*-1005 Mixed Evidence*

*P: Um encourage parents to become involved in the classroom and their child's progress. Um I don't... so for work we obviously have to encourage them to be a part of their progress in terms of um how the their kid's doing what they're struggling with, but I try to, I want to and I try to take it further, by having them actually involved. Like I set up times that they can come read to the rest of the class. Um. Stuff like that. So I'm really not sure where that would fit. Part of it I have to do, but part of it I don't, I just want to. Which is both? I'll put it in both.*

*-1018 Mixed Evidence*

*P: Um... Assist with care of the class animals. I don't really have anything terribly against it. But I guess I'm still gonna put it into the have tos. Um. That can be a, a, variety sometimes that's not um very much, just kind of making sure that the um lizards and the frogs have water and then other times that can be more of like, um we have bunnies, so sometimes that's watching the um kids with the bunnies, which is actually a really cool thing that they get to do. But sometimes a little bit stressful (laugh) and um and we usually hatch chicks... and um so, we help the you know, kids get a chance to hold the chicks and... um, I don't know part of me loves it and then part of me is putting it in the have tos. (laugh) So.*

*-1019 Mixed Evidence*

*P: Um... (small laugh) I'm debating about the next one. The next one is assist with musical practice. Some days that can be more hairy than others, so um... um... debating about where I want that one to go. Um just because um... I think for some kids that's pretty um that, that can be a pretty big stretch developmentally... um, so... for some I think that it's great and, and a lovely thing that, that they get to participate in for um, at our school and for others I think that it um can be stressful for the kids or just kind of difficult and kind of a hard concept for them to wrap their mind around. So um I guess I'll put it in the... both cuz in the end, I think everybody ends up enjoying it. But sometimes that one's a little bit of a... um... a little more of a stretch.*

*-1019 Mixed Evidence*

In contrast, some excerpts illustrated that, actually, it was straightforward and *easy* to make their task placements. Interestingly enough, two excerpts (previously presented) illustrated

the *difficulty* of sorting for participant 1019 and one excerpt (below) illustrates her or his impression of *ease* in sorting. So even within one individual, particular tasks may be challenging to place, but with a feeling of ease with the process overall.

*P: ...Um... it was easy to do, in my opinion. Um... I think that it maybe took me longer just cuz I was trying to put words to it but most of it I think was a pretty, for the most part a pretty gut feeling about whether I like to do that, and find it rewarding and enjoyable or whether it's not something that I like to do, and like I said before that I, um, I don't know, it helped to bring to light that I like where I work. (laugh)*

*-1019 Mixed Evidence*

*P: It didn't feel like it was that difficult to me. I kind of knew (laugh) where I was going to put them right away.*

*R: You just kind of, uh, it just was um, kind of maybe obvious what, what you were gonna go for?*

*P: Maybe, yeah, yeah. For... you know when you see some of these things at least for me like... certain things I'm sure are pretty universal at every child care center... With your, certain, with like the have to dos, you're going to have to do some cleaning or have to fill out some sort of daily report. And I've never worked at a place where you didn't have to do that. So I kind of know that those were going, where some of those were going to go.*

*-1009 Mixed Evidence*

*P: Um I was thinking... when I got to the page and you, you gave me the different categories, that automatically I knew the majority of mine would go under both.*

*R: Gotcha.*

*P: Mhm.. That was my immediate thought and as I went through, yes, the majority of it is under both because some of the have to dos are also things I think as a good teacher you should want to do. (laugh) Um it will just make your life easier um helps with um classroom management, helps reflect which is something teachers should do all the time anyway. So I'm not surprised that the majority of my list is under both.*

*-1042 Mixed Evidence*

### **3.2.1.1.2 A Feeling of Subjectivity vs. a Feeling of Objectivity**

Feelings of objectivity and subjectivity of the placement process provided some insight into how participants think about their own perspectives and the perspectives of others. Participant 1004 (excerpt below) provides her or his insight into how different caregivers think differently about the tasks they do at work, presenting an understanding that not everyone's values and experiences are the same, and (presumably) that her coworker's task sort would be different should she complete one. Also noted, though, is the thought that these differences are not inherently a negative, indicating "that's why we balance each other well." Participant 1044 similarly expresses this sentiment.

*P: I think it's fine. I think every teacher feels differently regarding tasks that they're required to do. I know my coworker would rather do the log sheets and would rather do the reports, and not spend as much time with the child, and I think that's why we balance each other well, because sometimes she feels um that she should not be um getting as close to the children as maybe I do. Um, she's more of a, mmm this is my job. I have to do this. That's what I'm gonna do. I'm not going into or, or beyond this point.*

*R: Gotcha.*

*P: I'm more of a feeling, touchy person, where um I really begin to have solid relationships with the children, not just because I'm their teacher, but because I love people, and I love to really see them grow. Does that make sense?*

*-1004 Leaning to Discrepancy*

*P: No...I feel, I feel like I honestly feel like that this task arranging thing, puts like, I feel like it puts everything there and then you're able to kinda like talk about why you feel like each thing is what, and then maybe it's different for everyone, so maybe like have to dos, some of them might have more positive experiences, and then there might be someone like me, and younger and is like, you know, I feel like I'm being, you know, I do it but I, I don't enjoy doing it, yet and maybe I will someday when I like, have the you know, like oh you've been doing this for a while, but, I don't know. So. I feel like it helped me look at what I do. And I feel like I can be like more appreciative of everything I do, like in the classroom, even if the parents that I'm talking to don't really like me, even though I try my best. But...Yeah. That's about it.*

*-1041 Mixed Evidence*

In contrast, participant 1022 indicates her or his impression of a more objective value system, where (in general), “people” don’t like to do specific tasks and this is “obvious” and caregivers would experience (and presumably place) these tasks in the same way.

*P: Um Not really just like, like I said like the obvious things that people don't like to do. I put in the Have to dos. But the placement not really um. I kinda believe that like everything is a part of your job so you kinda know what you're signing up for.*

*-1022 Mixed Evidence*

### **3.2.1.1.3 Emotions/Feelings vs. Thoughts/Cognitions**

Participants' experiences of emotions/feelings and thoughts/cognitions during and after the task sorting activity lend insight into the roles these ways of knowing contributed to their task experiences and placements. With regard to emotions/feelings, many participants reported experiencing the in vivo feelings they get from these tasks in the classroom while they were deciding where to place the particular task within the three groups. These feelings were both positive (excitement, joyful) as well as negative (stressed, irritated), with positives and negatives experienced both in connection to specific tasks and overall feelings while sorting. Some reported feeling nothing, or not knowing or not being able to place their feelings. In addition, some participants felt anxious and uncomfortable about the sorting task itself -- not always specifically the content of the task. The following are a sampling of the ways participants discussed emotion in connection to their task sorting process.

*P: Um introspective might be a strong word but like, something along those lines.*

*-1015 Not enough evidence*

*P: Mmmm (laugh) I mean I'm comfortable now that I'm at home with my feet up on my couch. (laugh) I'm not actually doing all these things. But I'm feeling like I have, I have a pretty busy*

*you know day. Like, it's it's constant. You know, we're not, um... I'm never not busy when I'm at work. (laugh).*

*-1036 Leaning to Compatibility/Fit*

*P: Um... feeling...kind, just kinda anxious that I'm going to sounds stupid. (small laugh). Like with doing something with someone sitting here watching me, or you know like not technically watching me... but you know, listening to my thought process, and stuff like that it's a little bit nerve-wracking.*

*-1018 Mixed Evidence*

*P: ...okay and then feeling, otherwise was like I said before I guess just generally feeling pretty grateful to be, at, where I am, our, um... our school isn't necessarily like the most um... beautiful or um... up to date but the um... the school is really loving and um... what's best for the kids is always what's most important. So, there you go.*

*-1019 Mixed Evidence*

*P: Um I don't know (laugh). Uh I can't explain how I was feeling. I don't know.*

*-1025 Not enough evidence*

*P: Um. For the most part like nothing, you know, sad, happy, or... I just kinda felt like you know, I guess if I wanna be effective, a lot of the things that I put in the want to dos are kind of like I said, the above and beyond. So kind of like, when I was filling out the ori, um, the initial sheet,*



*like what can I put in here that, are the things I do all day that I don't even realize I do. You know what I mean, like kind of...*

*R: Yeah.*

*P: ...looking beyond myself I guess.*

*-1016 Leaning to Compatibility/Fit*

*P: I was thinking about my day, and what, how I feel about each one of these things um as part of my day. How do they make me feel emotionally.*

*-1043 Mixed Evidence*

*P: Well it's interesting because um I already knew that attendance irritated me (laugh) now, I'm you know, and, and I'm just thinking of, I think I put it in like seven places, or something crazy like that. And it's not that I don't think it's important to know where your kids are, how many kids you have. I think um, the amount of paperwork that I have to do to keep count of that is um, it just takes me away from the kids. And so I think that's why it, it irritates me. Um but that's really the only one that irritated me was attendance. So...*

*P: Was that the only one that kind of elicited a feeling?*

*R: (laugh) Yes. Yeah...But most of it is um, most of it's joyful. Like I, when I was talking to you about um having meals with the kids, because you know my day is not perfect every day. And we have a lot of challenges. I have you know the most at risk children with [program] and so um it's, it, we have a lot of challenges to our day, but I, I just love that meal time because that's where you see friendships develop, and children talk back and forth, and we share things, like a*

*family. So that, that brought me joy when I thought about that. And, and as well with the home visits. Um I think I kind of conveyed that as I was talking about it...*

*-1043 Mixed Evidence*

*P: Um... most of them I was just like feeling pretty okay just like thinking about what I have to do. I did feel a little annoyed when thinking about like changing diapers and cleaning up the room, just because of experiences we've been having lately. Um. We've had issues at work, so like thinking about those did not make me happy. Uh but for the most part I, I felt normal, kinda okay.*

*-1030 Mixed Evidence*

*P: Um I was just feel... I guess gosh... um.. I guess having a comfortable feeling versus an uncomfortable feeling. Um. Sometimes you know um... I take pride and joy in you know, lesson planning and controlling in my classroom. Where you know, sometimes you know you dread and you have that feeling of you know I really don't want to do this but I have to do this. So I guess um. In you know... Doing this I guess you just kind of have the easy feeling versus the uneasy feeling.*

*-1035 Mixed Evidence*

*P: Um... Hmm... I was kind of, not overwhelmed, but um... Kind of conflicted. I felt like the want to do things um... hmm... I actually don't know how to answer that one. I don't, I felt calm, I didn't feel, ov, like overwhelmed, but I did feel that it was kind of confusing um when it came to the both, but I did have some things that fit in there.*

*-1014 Not enough evidence*

*P: Um I wasn't... like I was thinking about how I would feel as I was doing the task. Um so... Different tasks have like different emotions that would arise. But um... Overall I was kinda just thinking about my day.*

*R: Okay.*

*P: I had a...*

*R: Oh sorry go ahead.*

*P: Um but I had a pretty good day so I'm sure that my, my mood would kind of change if I didn't have a good day.*

*-1022 Mixed Evidence*

*P: Um. What was I feeling... I don't know I was just thinking about work and like days at work and some days are more stressful, so I was just thinking of that and how those moments of more stress may be more with have the have to dos and the, the activities that I was when I was putting in both are more of the things that I enjoy. So I was feeling more positively about those ones.*

*-1011 Leaning to Compatibility/Fit*

*P: Any feelings, probably like a bit of frustration, overwhelmed-ness, um... mmm um, like, like, overachiever kind of-ness. I'm pretty hard on myself in terms of my expectations of myself. Um I am constantly concerned that the parents are unhappy...*

*-1021 Leaning to Discrepancy*

*P: Um... How I, Um. I think some of the kind of cut and dry things were in the have to, the simple things like bus duty. Things that really aren't umm... not as emotionally tied maybe is the word that I can use... would go into the have to dos box. Inputting the data, the food prep, those are things that are simple tasks that you do daily, it's not like an emo... there's no emotional tie to it.*

*-1042 Mixed Evidence*

*P: Um. I think I was feeling, uh... I think I felt when I was doing it, a little bit of um I wanna say like pride in the fact that there are so many things that I do enjoy doing um, that are things that I have to do. A lot of times during the day, I think, you know there's so much to do and you have to do it. And, and you know if I could do this and that or the other thing, it would be you know a little easier, but when I was going through my list, I saw that like, everything, most of the things that I put down are things that I actually have to do but I actually really enjoy doing them. And that made me feel... kind of good about my job choice. (laugh) Yeah, I think that's it.*

*-1007 Mixed Evidence*

*P: Sure. I mean I went top to bottom. And I guess I just kinda thought about on my day to day basis. Is this something that makes me love teaching (laugh), the reason I came into it, or is this something that puts a smile on my face, um or is this one of those things that I'm just kind of, dreading, not necessarily dreading doing but just um feeling the pressure to get done so that I can move on to the next task.*

*-1028 Leaning to Discrepancy*

*P: Oh! I was excited, smiling. Nothing but great to have work that you like doing. (laugh) and um and take pride in feel good about.*

*-1045 Leaning to Compatibility/Fit*

Participants also discussed their thoughts/cognitions surrounding their task placement process. Interestingly, similar to how participants experienced the feelings and emotions of particular tasks while completing their arrangements, participants also thought about and cognitively envisioned themselves experiencing the task in vivo in the classroom while they were making their task arrangements. Their thoughts also described their interest in the task arranging process and some insight(s) they gained, tasks they forgot to include and why that was significant, and ideas participants' felt important to communicate. Overall, they shared their thoughts about why a task fit within a certain group, or more broadly how they thought of each of the Want to do, Have to do, and Both groups and how they made sense of their task placements overall. Below is a sampling of what participants thought about during the task arranging activity, both directly related to the process of the sorting, as well as other thoughts that occurred during the task sorting process.

*P: Um.. I was thinking it was kind of interesting to put them into have to dos and want to dos, cuz normally like in your head you kind of sort like work or anything in the professional sense into a have to do mindset, and it's not as much about what you want to do but more about following protocols and schedules. So it's kind of interesting to step back and look at them differently.*

*-1015 Not enough evidence*

*P: Um... I was kinda like picturing myself in the classroom like actually doing these things. Like well so the first one which says assisting children with toileting and diapering. I'm like visualizing myself in, standing in our Jack and Jill bathroom....*

*R: (laugh)*

*P: (laugh). ...like either at the changing table or you know helping someone do their zipper or their button. Cuz, you know... Fine motor skills aren't quite there yet when they're two. (laugh) um... Yeah.*

*R: So you were kind of visualizing that experience of each thing.*

*P: Yeah kinda like picturing myself doing the things that I typed out.*

*-1036 Leaning to Compatibility/Fit*

*P: Um I was thinking you know that like oh there's so many things that go into things that I have to do. Uh is there anything that would just strictly go into a want to do? And I didn't really have anything, but I, you know, well now I'm like thinking about it... I thought that um one thing I didn't put in with my list is just (laugh)... Uh I'm laughing cause it's like one of the most important things I do, is interacting with children. And I did list um implementing activities... but that's, that's kind of not exactly the same thing. So... I guess that's something that I missed to put down, because that's a thing that uh would, would have landed in my want to do list.*

*-1012 Leaning to Discrepancy*

*R: Okay. Yeah, you definitely did talk specifically about a couple things, so thank you for doing that. Um so... What are your impressions about the task arranging activity itself?*

*P: Um I think it's interesting, it kind of like gave me an idea to see like what I do day to day and why I do it. So, I guess I've never really thought about what I'm doing just cuz I go through the motions every single day and I don't really sit and like think about, this is something I have to do, this is something I want to do... it's just things that I do. So... it's kind of interesting seeing the amount of things that I have to do compared to the things that I want to do. So it's definitely more things that I have to do than the things that I really want to do. If that makes sense.*

*-1030 Mixed Evidence*

*R: Gotcha. Okay could you please tell me about how you arranged the tasks overall, your process or your approach.?*

*P: Um. I kinda just went down the list in the order that I wrote them. Um but I was thinking while I was like while I was waiting to go on to the next page before I was thinking it was really interesting that the first thing that I wrote was monitor child welfare. I feel like that's because it's so important to me that my children are happy, and safe, and healthy.*

*-1026 Leaning to Compatibility/Fit*

*P: I felt fine. Some, some of them I like thought about um, how the kids' faces are when I, when we um do some of the activities like when we do shapes and colors um... When I, when I said I was teaching them about shapes and colors etc. um I think about the kids' faces when they finally get, get the right color. Or they finally know like that this color is pink and that shape is a diamond, like they get so excited and I was just thinking about that.*

*-1037 Leaning to Compatibility/Fit*

*P: Um. What was I thinking... um... I guess just how important it is to make sure that all of the kids get the proper care that they need and are taken care of as much, as well as their parents would do at home for them.*

*-1024 Not enough evidence*

*P: Um... No, I think I just arranged them how I explained in the way that seemed most logical.*

*-1006 Mixed Evidence*

*P: Um. I, I, well I was, uh, I was thinking of, of each, of each item and then thinking about okay well how much, how much of the day, how much of the day does this entail and what do, what, does, does this make me feel happy when I'm doing it or is this more of a chore when I do it.*

*-1033 Mixed Evidence*

*P: Um I was thinking, I was kind of just running through my head my daily routines, and I was just thinking about um kind of the structure of our day... Greeting parents in the morning, um and the children and kind of thinking about how we, myself and my coteacher uh work with the children throughout the day as... um as a group and also with one-on-one time.*

*-1029 Leaning to Compatibility/Fit*

*R: ...Uh What were you thinking while you were arranging your tasks?*

*P: Um how best to serve children and how to... honor children and see the image of the child as being the number one most important thing of about early childhood education.*

*-1023 Not enough evidence*



### **3.2.1.2 A Priori Codes: Evidence for Four Discrepancy Categories**

Excerpts across the entirety of each participant's interview were coded as illustrating Discrepancy, Compatibility/Fit, or a Mix of these two. The strength and majority of each of these codes within the participant interviews thus determined their overall characterization. Six participants were able to be qualitatively characterized as *experiencing discrepancy* based on their recorded discussion. So, based on qualitative evidence, caregivers can be argued to experience discrepancy between required and aspired tasks in the classroom. Ten participants were characterized as having an experience to the contrary, that of *leaning to compatibility/fit*. However, experience with the participant interviews provided information that was often much more nuanced than an obvious determination for one characterization or the other for the majority of participants. Outside of what was hypothesized a priori was a need to adjust the way participants were characterized to reflect that nuance, as many interviews did not provide a clear argument for a participant to be placed into one or the other category. In addition, it was deemed necessary to add two characterizations (one mentioned above) -- participants with Mixed Evidence (presenting evidence for both discrepancy and compatibility/fit), and those who did not provide enough evidence on these constructs to make a determination, those characterized as Not enough Evidence. Two a priori categories did not fit with the experience of the data, and were thus removed from the coding scheme; see Methods section for rationale.

#### **3.2.1.2.1 Leaning to Discrepancy**

Excerpts that highlighted participant discrepancy (whether or not participants overall were indicated with this characterization), illustrated tasks that are outside participants' comfort zones, go against their values or how they would choose to do things (tasks that regulations or rules outside of their control require), and things they think take the time of tasks they value

more in the classroom. These excerpts, along with additional codes from different angles illustrated the lack of fit in the classroom for these participants (though for those characterized with Mixed Evidence, along with some compatibility in excerpts outside of the below).

*P: Uh I was just thinking like I ha, I, there's a lot of things that we do. You know there's um many, many different things that we do and that uh..... uh, sometimes, we often say that too... it's like, it's, it's the, the things that are tasks .. like, I would even say administrative tasks, like paperwork and stuff like that... it's you feel like you have to get that done, and you have to bring your mindset back to... like I said before the most important thing that we do is interacting with the parents and the, the children, so... While I might be really concerned like -- Oh I've gotta get this stuff done, it has to be done -- um...you, constantly I'm trying to bring myself back to what's the most important.*

*-1012 Leaning to Discrepancy*

*P: Um. So, assessing the children using... We use like [developmental assessment] and work sampling. And I understand why we need it, but I don't like to do it. Because I feel like it's not designed for my population, which is children with disabilities. And. Um. It tends to frustrate me a lot.*

*-1022 Mixed Evidence*

*P: Let's see, teaching ABC recognition, sound, name, and form, is a have to. I really do not believe 4-year-olds need to know that, as well as [religious language].*

*-1021 Leaning to Discrepancy*

*P: Observations for interest-based curriculum, observation for interest-based curriculum is gonna be a want to. Cuz it's not necessarily our school's overarching rhetoric.*

*-1021 Leaning to Discrepancy*

*P: Yeah just whatever I felt was most important to me, not necessarily what the school's rules are, specifically not what the [standards program], I don't even care about the regulations. (laugh) I think some of them are really uh...an imposition and make the, make a teacher's ability to really focus on the kids um difficult. Um and I don't necessarily agree with all the rules. I do understand why they're there. I just don't think they're always so important. Like a schedule for instance, should be flexible because a schedule is depending on what the children are working on. Are they really engaged? Do they have to have that full hour of outside time, and if that, if there's like a lot of smog outside and you guys are telling me that it's dangerous to go outside. (laugh) So then, that kinda worries me. And it's like so I can't take my children outside, cuz happens to be too much pollution outside that day. You know, I don't know.*

*-1021 Leaning to Discrepancy*

*P: Enter data into [system]. Oohh. Umm...Hmm... I'll put that in have tos. It's very painstaking. The program is not user friendly. I think it gives some useful information, but not that great. Um so I'll put it in the, I'll put it into the have to pile. Um I feel like some of my anecdotal records and um other data that I have and I've collected is a bit more valuable than some of the things that are there, but that's one of the um databases we use, and it's a must do. So, we do that three times a year um throughout the year.*

*-1042 Mixed Evidence*

*P: Um program classroom curriculum weekly. That's definitely a have to do, um I feel much more that infant and toddlers do better without specific activities planned for them throughout the week.*

*-1007 Mixed Evidence*

*P: Uh let's see...Ensure my classroom meets [regulation] standards, [regulation], and [regulation] requirements. Uh I'm gonna put that with have to do. It's not that I don't want to do it, it's just sometimes I feel like all the standards um get in the way of being able to program some really good stuff sometimes.*

*-1007 Mixed Evidence*

*P: Um and I think too the, the have to dos, sometimes I think the, with the, ensuring your classroom meets standards. Um that doesn't surprise me that that would go in a have to do. Um my, my center is a [rating] center, and we take all of that very seriously. But I think universally most of us feel that there is so much minutia these days with what you have to do to meet certain standards. That a lot of times it kinda takes away from, being spontaneous um and so that's something I'm, it just does not surprise me in this list at all.*

*-1007 Mixed Evidence*

*P: ...To make sure that I was conveying to the investigator how complicated it is um each and every day, trying to follow the curriculum, handle the children, uh making sure that we're living*

*up to the, the standards of, of [standards program], also trying to make sure that the parents will become pleased with the progress that their child made by the end of the week in the accomplishment of the tasks, in that particular curriculum for that week.*

*-1004 Leaning to Discrepancy*

### **3.2.1.2.2 Leaning to Compatibility/Fit**

A sampling of excerpts that highlighted participant compatibility/fit (whether or not participants overall were indicated with this characterization) are included below. A much larger volume of excerpts were coded as illustrating compatibility/fit than illustrated discrepancy, while only four more participants were characterized as experiencing this compatibility/fit overall than those characterized as experiencing discrepancy overall (10 and 6 respectively). Thus, many excerpts representing the Compatibility/Fit experience were additionally joined by discrepancy experiences, and thus produced participant characterizations of Mixed Evidence. Some excerpts provided insight on why it was a Want to do task (some note that they want to because it makes their lives easier, while others note the value and enjoyment of the task), but left implicit the way in which it was a required task (just that they have to do it). And some left implicit why the task was a want to do, simply stating that they want to do it, potentially indicating that it should be obvious to someone why they'd want to do it -- and provided specifics to say that it was part of their job and/or part of certain regulations for the reason they have to do it.

*R: Gotcha. Okay, great. Thank you. Um. so similar, but a little bit different. What were you feeling while you were arranging the tasks?*

*P: Um... I guess I was feeling...you know, I don't know how to say this but... I really like my job and I like the age group that I work with a lot. I've bounced around... between infants now, but*

*in the past I've been preschool, and I've been toddlers, and a lot of the things that I said that I want to do are even under the both category. I have to do them too, but I like doing them. Like I really enjoy reading to the kids and holding them and playing with them... so at least I have... you know throughout my day, I say it all the time, that I don't feel like I'm working sometimes... You know I just, I go somewhere and I spend time with these great little babies, and then I get to go home, and I kind of was thinking about that too while I was doing this. And kinda realizing I'm happy with a lot of this which hasn't always been the case. If that makes sense.*

*-1009 Mixed Evidence*

*P: Yeah, it's... (audible breathing) I was a little surprised I guess maybe at myself that I don't have any strictly want to dos. I have a lot... that overlapped that were both. Like I have to do them, but I want to do them. So... that, I guess it's not a bad thing that I, I want to do a lot of the things that I have to do. And you know I don't feel like it's an inconvenience for some of these things, you know I actually want to do them. And that, I guess that surprised me a little bit when I see that. I didn't know that I'd have so many that would overlap.*

*-1009 Mixed Evidence*

*P: So I put collect multiple pieces of data, standards, old lessons, observations... to develop my lessons in both because I obviously I have to use standards, and I have to do those, but the reason I want to do it is because... Some of my old lessons, I was able to find something that didn't work. And I can look at it later, and think okay, when I give this lesson again I'm gonna do it this way, like it helps, it's really helpful. So, I obviously want to do it. So that it makes my job of giving the lessons a little bit easier.*

*-1018 Mixed Evidence*

*P: Um I was... I was thinking that a lot of them were both. Because I mean, there's a lot that we have to do for, you know, for licensing purposes or [standards program], or but I, I find that I wa, I want to do it too, for the children. I mean, like, you know what I mean, that's, it's part of my, part of my job. Like you know what I mean. And I, and I want to be able to help them do all that stuff, and encourage them to grow, and... So, it's not like just because it's a have to do... I want to do it too.*

*-1013 Leaning to Compatibility/Fit*

*P: Um... truthfully, I guess I was thinking that um I feel pretty lucky to work where I do. Um I feel um... yeah generally I feel pretty lucky and grateful to work where I do because um the philosophy of the school really um jives with my philosophies of child development, so um rarely do I feel um... concern or disagreement with, you know, you know, the thoughts that, that the director has or that other teachers have in regard to how to um support the child or the family or um ideas about what sorts of lessons we want to um provide. You know, generally I feel like the, just I guess lucky for my team of, feel lucky for my team of teachers, and for the director and um that um I don't have anything in my want to do list that I'm not getting to do... so, is that good? (laugh)*

*-1019 Mixed Evidence*

*P: Um I, I think that all the things that I listed are things that um are required of me, but I guess I was internalizing as, would I do it even if it wasn't required of me. Um because I know that as,*

*as staff everybody in our, our building, we're always like, oh! the [curriculum] my whole family knows what the [curriculum] is, which is our assessment... um but if we didn't have it, if we didn't use it properly, um I don't know how I would plan the lesson. And, and that's what I was thinking, it's something I have to do, but I want to do it because it makes lesson planning much easier. I, I know where I need to go with my children and what I need to do. And same thing with assessing the children, um tha, and that was my thought process. This is something I have to do, but when I think about it for me, it's also something I want to do because I need to know where my kid's at, are at so I can support them to be successful.*

*-1043 Mixed Evidence*

*P: Oh, it...I liked that there were three boxes and thankfully you had both in the middle because um there are definitely things that I am required to do but I also enjoy doing.*

*-1043 Mixed Evidence*

*P: Um basically I was thinking about the things that are part of my job, you know that I am required to do, um and the things that I really care about doing, like the things that I would do even if it wasn't part of my job. So you know I, I appreciate that attending planning meetings is part of, part of my job and I, I appreciate that they give me time to have planning meetings on the job, but also I would probably be like texting my coworkers outside of work anyway to plan, so that's a both cuz it's something that I have to do and that would I want to do.*

*-1026 Leaning to Compatibility/Fit*



*P: Um home visits I'm putting in both because I feel like it's very important um... We usually try to do home visits before the children enter our classroom. I think it's a nice way to introduce the families to staff and it makes the children feel comfortable the first day that they come into the classroom. I know I've done home visits the day before the children enter into the building and they already feel like they know me. And the typical comment is, is, you've come to my house, you've been to my house. And they're very excited about that. So although it is a part of the program, I also want to do it. And even with my returning families, I still continue to do home visits with them because there may be changes that happen in the summer. I think it's very critical to have that face to face interaction, and you can have more intimate conversations with the families as well.*

*-1042 Mixed Evidence*

*P: Uh. Weekly lesson plans (laugh) I'm putting it in both as well. Um you know it's a requirement of the program. You also make sure that the families are, know what's going on. So I do do weekly lesson plans and send them out to my families. Uh but it also helps me keep track of the teacher. (laugh). Um it reminds me of the plan, so that I can have a schedule and I have a good flow of the week. And it just gives me a basis for, a foundation for the week, although, a lot of times especially with [program type] you know, things change on the fly. But it gives me a good foundation.*

*-1042 Mixed Evidence*

*P: Um. Adhering to [type of standards]. Well [type of standards] I don't know if you're familiar with that... um in [state] it's a [type of quality assessment] so um, it's a certain level of quality*

*or how they rate different programs based on um everything. I, see, they look at the learning environment, adult child interaction, um materials, um the, the school environment, the building, the playground, like every little thing that um, curriculum all of it. So um, that's definitely a have to do for the specific program I'm in um and for me it's a want to do because I feel passionate about it. I believe in it. I know it's based on research um and that having a high score on the [assessment] um means that it's a very high quality that you're providing. So again this is a thing that would go under both for me.*

*-1031 Mixed Evidence*

*P: Support children's developmental, social development. Support children's social development. Is both.*

*R: And why is that in both?*

*P: Um because I think it's important, so I want to. But I believe it's, part of uh er early childhood educator job.*

*-1045 Leaning to Compatibility/Fit*

*P: I don't know. (laugh) I think, I think, it makes me happy to see that I'm doing things I like to do. But what's required of me I also like.*

*-1045 Leaning to Compatibility/Fit*

### **3.2.1.2.3 Mixed evidence**

At times, the Mixed Evidence code was needed outside of the (binary) *overall* participant characterization when participants provided information within one excerpt that illustrated both

discrepancy and compatibility/fit. This provides additional evidence for the nuance shown within thinking of these professional caregivers.

*R: Um please tell me about how you arranged these tasks, overall your process your approach. You kind of did touch on this, but if there's anything else you're thinking about with that.*

*P: I did it was the um... uh whether I like them or not, whether they make me feel good or not, um like it takes time and uh wracking my brain to plan and execute the lesson on paper but I, I like to teach it. You know what I mean...*

*R: Mmm hmm.*

*P: Um So when I categorized that's a have to do, I know I have to do that and I don't even like it. But it leads to teaching.*

*R: Gotcha. Understood.*

*P: So you know. Have to do turns into a want to do because of the um consequence in this case is good, you know.*

*-1002 Mixed Evidence*

*P: Um I'm going to put maintain communication between um the school and therapists, nurses and other staff um because it can be successful in some points and it can be very beneficial, and other points it can be kind of frustrating because you feel like you're the only one implementing the strategy that you decided.*

*R: Where did you say that you put that pla... uh that task?*

*P: Um I put it in both because sometimes, I mean we obviously always have to do it, but sometimes I feel like I'm just doing it because I have to do it and other times I feel like it's*

*actually benefitting the child in my classroom as well as like the family and their home life, um but when it's not a successful communication that makes it very frustrating. Just feels like some motion I have to go through.*

*-1022 Mixed Evidence*

*P: Um, cleaning up the area, well I have to put in the have to, cuz who wants to clean up, um the area, so that involves um, you know, we clean up while the kids are there of course, just from the standpoint of having them help to learn to put their items back. So that I guess is more of a um want to, but um sometimes it really actually involves actually really cleaning after the kids are gone too. So that's why I'm gonna put that in the have tos.*

*-1019 Mixed Evidence*

*P: Um... (small laugh) uhh... the preparing work sampling portfolios outside of school time. I, I think I'm gonna have to put that in the have to dos. It's something that is um really nice to give our families and I think it's something that they really appreciate, so part of me does want to do it also, but it is extremely, extremely time consuming, so I'm gonna put that in the have to. Cuz I'm in the middle of that right now and it's feeling pretty time consuming. (laugh)*

*-1019 Mixed Evidence*

#### **3.2.1.2.4 Not Enough Evidence**

Those participants who did not provide enough evidence for the characterization of experiencing discrepancy, compatibility/fit, or a mix, were thus characterized as not having enough evidence in this space. Five participants were provided this characterization based on lack of codes associated with the constructs, or if a small number of these codes were utilized --

they did not illustrate the strength determined to be placed in one category, the other, or the mixed evidence category.

### **3.2.1.3 A Priori Codes: Idiosyncratic Language and Terminology**

Idiosyncratic terminology and descriptions were used by participants for the *Have to dos* (required tasks), *Want to dos* (aspired tasks), as well as those tasks that are indicated as *Both* tasks. Excerpts from these codes illustrated a contrast between the positive and negative valence for each of the Have to do and Want to do groups, such that Want to dos were often discussed with positive valence, while Have to dos were discussed with negative or more neutral (responsibility-laden) valence.

#### **3.2.1.3.1 Have to Dos / Required**

A sampling of how participants discussed Have to dos is included below. Many participants used negative-valence descriptions such as “not fun,” “mundane,” “annoying,” and even “stupid,” but also use descriptors that illustrate an (often matter-of-fact) understanding of responsibility and job obligation; tasks that aren’t necessarily meant to be experienced in a positive way. Included were notes about lack of choice, tasks that come from an external source (being “told” to do the task or being “required” to do the task by the director, center, state, etc.), and some mentioned that they were things that did not involve the children (or only involved them peripherally). Emergent codes that appeared within these descriptors included stress, time (that is, the lack of time), paperwork, and standards and regulations.

*P: Um... I was thinking it was kind of interesting to put them into have to dos and want to dos, cuz normally like in your head you kind of sort like work or anything in the professional sense*

*into a have to do mindset, and it's not as much about what you want to do but more about following protocols and schedules. So it's kind of interesting to step back and look at them differently.*

*-1015 Not enough evidence*

*R: And could tell me a little bit, briefly about why you put those in have to dos?*

*P: Sure. Uh... This is part of the program...part of our programming is um you know when we bring students in that we have to create these, conduct evaluations to see if they're eligible, and then also write up the formal report afterwards. So that's just part of the job I guess. So that would be a Have to do for me.*

*-1034 Leaning to Compatibility/Fit*

*P: Um. Remaining in compliance with timelines of special education paperwork. That is a have to do. That's just... we must be within um compliance and we have to do that.*

*-1034 Leaning to Compatibility/Fit*

*P: Um. same with cleaning the toys. I have to do that. I don't wanna do it. It's an annoying part of my day, but, I mean, toys get dirty, they need to be cleaned. So, that's a have to do.*

*-1009 Mixed Evidence*

*P: Honestly, I was thinking about... some of this mundane stuff that I have to do throughout the day that I wish I didn't have to do. I could focus more on the kids, but I know that's not... a*

*reality. You know I, I have to do some of the cleaning... (audible breath) and some of these like paperwork type things, that it, it just comes with the job unfortunately,*

*-1009 Mixed Evidence*

*P: Um. Bathrooming, I put that um you know we go multiple times a day, and we have uh, kinda follow a protocol for that handwashing and all that stuff, so that's a have to do.*

*-1016 Leaning to Compatibility/Fit*

*P: Providing a safe environment, um have to do for sure. Making sure that you know we're complying with all the things we have to follow for the state, making sure things are locked up that are, you know, dangerous to the kids. Um. It's definitely have to do.*

*-1016 Leaning to Compatibility/Fit*

*P: Um next is changing diapers. Uh that's something we have to do. Not very fun.*

*-1030 Mixed Evidence*

*P: Um I think it's kind of interesting that the things I had in the have to do section are, I guess more like technical, like changing diapers, cleaning up, feeding... it's not necessarily interacting with the kids but it's doing things that are required in order for like the day to run smoothly...*

*-1030 Mixed Evidence*

*P: Um. Monitoring school, after school care. It's definitely a have to do. I don't love that part of my job... It's part of my duties.*

*-1026 Leaning to Compatibility/Fit*

*P: I would say a have to do is something that you don't enjoy doing but you have to do it, it's a part of your job.*

*-1037 Leaning to Compatibility/Fit*

*P: Um just kinda about the things I enjoy doing while I'm at work, whereas the have to dos are kind of more just things that don't necessarily, I don't, don't bring me joy while I'm at work necessarily, but I know they're, they're things that I need to do.*

*-1011 Leaning to Compatibility/Fit*

*P: Um. What was I feeling... I don't know I was just thinking about work and like days at work and some days are more stressful, so I was just thinking of that and how those moments of more stress may be more with have the have to dos...*

*-1011 Leaning to Compatibility/Fit*

*P: Um. So ya have to, so like the have tos I guess um are the things that I know come directly from the school. And specifically from my director. She sends a weekly email and it's like all the things she wants you to teach that week...*

*-1021 Leaning to Discrepancy*

*P: Um... I think I just want to say that the have tos feel like, give me more tension in my heart....*



*P: So like I think that uh when I, the things that are in my have tos um I feel are, you know, annoy me.*

*-1021 Leaning to Discrepancy*

*P: Okay. Okay. Um then that's where I will start I'll start with that first one which is the class preps, or class prep and lesson plans. Um and again it's something that is a requirement from our center and um from even like you know with the state when they come in and do their um evaluations and with our [type of program] program that we, that we use, um we certainly need to have curriculums and lesson plans set up.*

*-1017 Leaning to Discrepancy*

*P: Um... How I, Um. I think some of the kind of cut and dry things were in the have to, the simple things like bus duty. Things that really aren't umm... not as emotionally tied maybe is the word that I can use... would go into the have to dos box. Inputting the data, the food prep, those are things that are simple tasks that you do daily, it's not like an emo... there's no emotional tie to it. Yes it involves the children and it affects the children but it doesn't completely impact their learning... besides the inputting the data, Yes that needs to be done so that whoever needs to look at it can look at it and get information about the children... but maintaining the budget, the children don't really know about that or the families. So it's not something that directly affects them and that is visible to them.*

*-1042 Mixed Evidence*

*P: Um just trying to think about each one individually um and, and think about how I feel about it, why I feel that way, if it's something that someone else has told me I have to do, um or if it's a, a requirement or a responsibility or if it's something I choose to do.*

*-1031 Mixed Evidence*

*P: ...Have to dos are more of the, this is required for me to do my job or someone else has told me that I have to do it, and maybe I don't enjoy it, or maybe I don't want to do it, but it's still part of my job.*

*-1031 Mixed Evidence*

*P: ...Things that I feel rushed to like make happen in between when the kids are actually there uh before they're there, after they're there. Um those are the things that are a little more stressful and become more like a chore.*

*R: Gotcha. And those were the kind of the have to dos, are the, those are the things you're considering have to dos?*

*P: Mmmm hmm.*

*-1028 Leaning to Discrepancy*

*P: ...Um. Most of the things that I have to do are more just upkeep um and not really involving the children.*

*-1028 Leaning to Discrepancy*

*P: Okay um... The have tos are your things that you don't have a choice with like naptime, toileting, recording attendance. Not the fun stuff. Has to be done but you know, not the fun stuff.*

*-1003 Mixed Evidence*

*P: And then greeting the parents in the morning, I, I feel like it's a chore for me, talking to parents. It's like a have to do. I'm not the best at it. And I think I've had a pretty bad experience in my toddler room, so I'm like very hesitant to talk to talk to parents about anything.*

*-1041 Mixed Evidence*

*P: ...Um. The have to dos, I feel are just like my opening and closing center ti, centers, and the center itself is just something you kind of make a routine of and you go through the motions... um along with that because you're, oh you have to wash mats or put chairs away or clean the tables before children come in, get your supplies ready for the day. Um it's good to have but it's kind of something that you already have made a routine about that you don't necessarily think about a lot, you're already, you're doing it. Um. It's kind of an auto, auto pilot when I get up in the morning I'm like okay, I have to get some cups, I have to get my paint, so you're already on that auto pilot system if you've been doing this a really long time.*

*-1038 Mixed Evidence*

*P: Um right now I'm thinking I'm gonna put it in the have to dos because... the portfolios are nice to look back at and so are the assessments, it's just the requirement from the [regulating body] but I know it's also important to look back at that information um as a teacher to evaluate*

*where your children are. So I might end up moving it down to both. Um I just haven't decided yet. Does it matter how many I have in both?*

*R: Nope, there's no uh number that... So they can be um whatever you wish.*

*P: Okay. I feel like it's more of like a task, so that's why I put it under the have to dos... But the more I'm thinking about it, it is also a nice tool to have. So I might end up moving it to both, but I'm not sure yet.*

*-1029 Leaning to Compatibility/Fit*

*P: Um... I guess I was thinking about the things that I like the best... which was mostly all of them. So have, a have to do thing was kind of like lower on my hierarchy when I was thinking about the have to dos. I was thinking, when I, when I come to work I know there's things that I have to do but most of the stuff I want to do it, so... I mean obviously things like following the rules and mandating, um...being a mandated reporter, I have to do that, but I like to do it so I put it in both. Um... and I guess the... my least favorite things to do (small laugh) I put them with have to dos. There were little, there were only two things in there, but I put those two things in the have to dos. Cuz those, I, I really don't like. Paperwork and potty training. Those are my least favorite activities. And I think in my mind, I was thinking, What, what...do I like to do best, what do I like to do least, so, that's how I classified those things.*

*-1039 Mixed Evidence*

*P: ...Um. It's interesting looking (laugh) at the have to dos and um wondering how different things might be or could be if I didn't have to do those things. And if maybe I would feel differently about my job or it'd be um less stressful or...I get why all of those things are have to*

*dos, why they're required, I, I totally understand it but they are the things that make it more difficult some days or less enjoyable and um being a reflective person I'm always looking to lessen the negative things um and increase the positive ones and so the fact that those are not really, have to dos are not really positive to me but yet I can't do anything about it is a little bit frustrating.*

*-1031 Mixed Evidence*

### **3.2.1.3.2 Want to Do / Aspired**

A sampling of how participants discussed Want to dos (sometimes discussed coupled with Both) is included below. Participants discussed these tasks as part of their unique personality or preferences, tasks that they *choose* to do and are part of going above or beyond work duties, requirements, and what they've been told to do (and things that they do beyond what *others* do), often used positive-valence terminology and descriptions like "important" (an emergent code), "enjoy" (also an emergent code), beneficial (often directed toward the children in their care), are illustrative of positive emotions, and often note their relationships with children and families (another emergent code) within these Want to dos tasks.

*P: Um facilitating peer play opportunities. Um this is a want to do. Um I wouldn't say I have to do this. But it definitely benefits my students that I facilitate um peer play opportunities so that they're learning those social skills.*

*-1034 Leaning to Compatibility/Fit*

*P: Oh okay um I just, I mean the want to dos made me think more so about my personality, like, so for example the classroom that I was in today. Um... Like greeting parents at pick ups and*

*drop offs. Like I just you know I'm, I'm pretty social sometimes, so I'll like, you know I just stop to say hi to the parents in the morning and like see how the kids' night was before, like. And it's Monday, so I was curious how their weekend was. But that's not um a have to, you know what I mean, we don't have to strike up conversation with parents when they pick up or drop off, but I just like to, I like to know.*

*-1036 Leaning to Compatibility/Fit*

*P: ...but then the want to dos are things that I felt important, like the [phone application], or relationships with children and families.*

*-1016 Leaning to Compatibility/Fit*

*P: ...I just kinda felt like you know, I guess if I wanna be effective, a lot of the things that I put in the want to dos are kind of like I said, the above and beyond.*

*-1016 Leaning to Compatibility/Fit*

*R: ...so the want to dos, is that kinda how you were thinking about those things?*

*P: Yeah, just what brings me the most joy.*

*-1043 Mixed Evidence*

*P: Um resolving conflict between children, that's...I'm also gonna put that in want to do. Because again it's not part of our curriculum to really solve problems, it's more separate children if they are going through a conflict.*

*-1030 Mixed Evidence*

*P: ...The things I want to do are things that aren't necessarily written out as a requirement, but things that I, find important to do with my kids.*

*-1030 Mixed Evidence*

*P: ... but the things that are in like both and want to do um relate more to the kids and like spending time and interacting with them.*

*-1030 Mixed Evidence*

*P: ... And a want to do is just something that's your personal preference I would say like as a person what do you think like every kid should know how to do.*

*-1037 Leaning to Compatibility/Fit*

*P: Um I thought I was arranging them, I guess I didn't really (laugh) think that some of them were want to dos. I definitely just typed out everything I did and didn't even realize that they're not always asked of me by my supervisor, or required of me. And I noticed that a couple of them were, just kinda showed my personality or um, I guess my habits, in the workplace.*

*-1014 Not enough evidence*

*P: ...but if it was a want to do or a, uh, a both also required then I was thinking that those things I enjoy doing those things in the want to do and the both areas. They are things I look forward to doing.*

*-1011 Leaning to Compatibility/Fit*

*P: ... and the things in the want tos are like my deep, my more, like deep interests and my deeper like connections to the classroom.*

*-1021 Leaning to Discrepancy*

*P: ... But it's nice to be able to have that uh open time and discussion time with the parents if they do need to discuss something or if you do need to discuss something with them. So, and that's something that is not required but it is something that we all do and find it very beneficial. So that one, that's where, that's gonna go under want to.*

*-1017 Leaning to Discrepancy*

*P: Um... I mean I think that the ones that I really do enjoy, they're the two that are in the want to dos, I think they're very beneficial for the first one is by the kids, it's very beneficial for the class...um not only for the children but it's also for the teachers to kinda get in a grasp of um what goes on outside of the classroom with the kids*

*-1017 Leaning to Discrepancy*

*P: Um and then last thing, I put reflection. Um I've always found myself very reflective about... um everything. Every activity we do every day. Um. I talk with my partner usually every day, if not every day, we definitely talk at least once a week in-depth about specific children, specific activities, how something went, um why it went that way, why it worked well, or if it didn't um, we've just always be, even before I was with her um always done a lot of reflection. I'm always wondering why and wanting to understand why something didn't work or if something went*



*really well I want to know what went right so that I can re-create that situation in the future. Whether it was for the whole group or just a specific student. Um reflection's always been really um important to me, and I feel like it's something that um teachers should have to do but I suppose it's a choice. It, It's not really required of us to do that. Um so I guess this is mostly a want to do, in my opinion.*

*R: Okay.*

*P: Uh. Definitely something I choose to do.*

*-1031 Mixed Evidence*

*P: ... wanting to do it would be something that I um like or enjoy or uh I at least see the benefit to doing it and so that makes it a want.*

*-1031 Mixed Evidence*

*P: ...And then there's the stuff that no one really told me to do and I wanted to do, which I guess is more like me getting books for my toddlers in the classroom, because no one has to tell me to do it, I just kinda go and do it, and I'm like, I get excited, cuz there's so many books there and they're all excited.*

*-1041 Mixed Evidence*

*P: ...um things I want to do is, things are kind of still, you know it makes me a little happy trying to be creative, trying to find new things... Kinda what I was going with as I was thinking.*

*-1038 Mixed Evidence*

*P: Um For instance you know making sure children, or helping children get to sleep, or scaffolding children. That's probably something everybody should be doing but I'm really the only one that would like that done. So I do it. So that's, those types of things are under want to. Those. All those types of things.*

*-1005 Mixed Evidence*

*P: Yes and I did feel. How I feel when I. Okay. I want to do, and I have ... this is probably maybe off the wall to you but assisting others with ratio... in, in the want to do.*

*R: Okay.*

*P: Because if we communicate and assist each other, in within the uh organization then the organization is better and we're more helpful instead of um you know neglecting the kids' needs, we assist each other. That's a want to do I like that part. You know what I'm saying.*

*R: Yeah.*

*P: So I feel good about that kind of thing, so I put it in the want to do.*

*R: Okay.*

*P: Makes me feel good when I do that, um teaching makes me feel good. That's in the want to dos. The feelings kinda, my feelings about doing these things is how I decided to put them in the... spots.*

*-1002 Mixed Evidence*

Some participants did not have any tasks fell strictly (or the majority) into the Want to dos (with their Want to dos coupling with Have to dos in the Both category), which was a

surprise to many, and the occurrence was taken both in a positive and negative light by participants.

*P: Uh I am surprised how many fell under both. I'm also surprised that I only have one under want to do. But I guess that's because both covers the other things, like because it overlaps...*

*-1031 Mixed Evidence*

*P: Yeah it's... (audible breathing) I was a little surprised I guess maybe at myself that I don't have any strictly want to dos. I have a lot... that overlapped that were both. Like I have to do them, but I want to do them. So... that, I guess it's not a bad thing that I, I want to do a lot of the things that I have to do. And you know I don't feel like it's an inconvenience for some of these things, you know I actually want to do them. And that, I guess that surprised me a little bit when I see that. I didn't know that I'd have so many that would overlap.*

*-1009 Mixed Evidence*

*P: Um. I was kind, I guess I was thinking um, surprised at how many things that I both have to do and, and want to do. (laugh) I feel like there's a big list of them, where I would have thought there would be more of one or the other, um so I mean that makes me feel kind of good because I think now I, I can see why I, why I do what I do. Sometimes things get hectic and you think oh this is a lot of have to dos. When I look at the list I made, I actually see it's a lot of things I actually want to do. Um I'm surprised there's not more things that I just want to do that aren't under the both category or under have to do. I, um, I'm surprised there's only one thing the*

*conference that I really want to do, um cause I always think of my job as being a lot of the things that I either have to do or want to do, so...um... But I'm pretty content with my list.*

*-1007 Mixed Evidence*

*R: Um... do you have any thoughts or feelings you'd like to share about your um, your final arrangement, you can look at it holistically, you had, uh if you just like look at everything you have um any thoughts or feelings you'd like to, to share?*

*P: Um... no I feel, uh, I almost feel like it makes me, seeing that there's only two want to dos, I feel like that kind of lowers my value (small laugh) although I feel like I expressed why um on this, uh I hope it doesn't seem like... I don't want to be doing it, but um so that actually kinda jumped out to me, because I definitely enjoy being in the classroom and I enjoy interacting and being with the kids and what I do, so that was actually kind of a surprise to see that I have more have to dos than want to dos. Um obviously I have a lot of areas that also fill in both roles.*

*-1017 Leaning to Discrepancy*

*P: Um. I oddly am somehow disappointed that I don't have anything in just the want to dos (laugh) um but I feel like... I, I don't know. I don't ever do anything just because it's so it's what I want to do. I more or less do what's best for the kids ah, and take my spin on it, so I am like trying to rationalize why I wouldn't have anything in want to dos. (laugh)*

*-1006 Mixed Evidence*

### **3.2.1.3.3 Both**

A sampling of how participants discussed the Both category and tasks within it is included below. Mentions in reference to the Both category included descriptions of choice,

preference, as well as positive emotion and valence, and the inclusion of interaction and relationships with children and families. And while the mention of the emergent code *love* was also found in the Want to dos group, many mentions of love were found as well within the Both category of tasks.

*P: Um both is, is a combination...*

*R: Yeah...*

*P: ...of the two. I think, you know something I've been told I have to do but it's something that I also believe in or enjoy to some extent, so um that's, that's what made it fall under both.*

*-1031 Mixed Evidence*

*P: ...Um so that's kind of how I thought about it. If it was a baseline requirement of what my job title is I put it under have to do, and if it was a combination of what I have to do and how I like to do it I put it under both.*

*-1006 Mixed Evidence*

*P: Teach children as a whole group and in individual, as individuals based on social-emotional, academic, and developmental abilities. Um...I put that under both because, that's something that I love to do, I love to see children, and I love to see them grow throughout the year. So I put that under both.*

*-1029 Leaning to Compatibility/Fit*

*P: Um (inaudible) (laugh). Um. there's a lot of things that are both like we have to do it but I don't mind doing it. Like I actually really like the educational part with the kids, like I love sitting with them and teaching them and singing with them and I actually like to interact with my parents and hold conversations with the kids and do arts and crafts with them.*

*-1003 Mixed Evidence*

*P: Okay. Alright. (laugh) the audio part... Okay. Breakfast setup is both... I think bre, breakfast, I love breakfast setup. The kids get excited when it's time to clean up and... we have, I mean we have to do it, but it, it, it's also, I, I like to do it because um here breakfast cleanup it's a lot, it's also both. In breakfast cl, there's a lot of um... conversation going on during breakfast, um between the kids, between the staff. I mean, we sit with them on the floor. And it, it, it's just a lot of fun, fun conversation.*

*-1013 Leaning to Compatibility/Fit*

*P: Both I think, looking at my list, the things that I put there... I just think are no brainers. I think if you're invested in your families and children and you're invested as a teacher and want to do what's best for your profession, for the children, for the families, for your self-learning... those are things that you should want to do. Although those are also things that you have to do. And not go through the motions of it. So I'm thinking of the want to dos not going through the motions of doing something, it's actually truly believing that this is in the best interest of the population we're serving, the children and the families.*

*-1042 Mixed Evidence*

### 3.2.1.4 A Priori Codes: Dissonance or Harmony Between Card Items

#### 3.2.1.4.1 Dissonance, Discrepancy, Incompatibility, or Conflict Between Card Items

Quite a few participants discussed the dissonance, discrepancy, incompatibility, or conflict between tasks they do in the classroom. A number of excerpts highlight the incompatibility between particular tasks for which participants place less of a value, and their time and ability to interact with the children in their care, for which they seem to place a higher value. Some participants also allude to the lack or limited amount of time when discussing the incompatibility of these tasks. Of note is that two of the participants providing excerpts below were qualitatively characterized as experiencing discrepancy (with four characterized as having mixed evidence of discrepancy and compatibility/fit).

*P: Room maintenance, sweeping, washing dishes, caring for plants and fish in the tank. So, this is a have to, because it does take away from interacting with children and it's, it's kinda extra time even after you're off the clock, you're still walking around cleaning the room.*

*-1027 Mixed Evidence*

*P: Honestly I was thinking about... some of this mundane stuff that I have to do throughout the day that I wish I didn't have to do. I could focus more on the kids, but I know that's not... a reality. You know I, I have to do some of the cleaning... (audible breath) and some of these like paperwork type things, that it, it just comes with the job unfortunately, so and in other classrooms like a toddler or a preschool classroom, at least in my center they have one big nap time, from 12 to 3 every day or 12 to 2:30, and they get a lot of that down time to catch up on those types of things, whereas I'm in a room... where not everybody's sleeping at the same time.*

*So it's harder for me to get things done. And so I wish I could eliminate some of those stupid, well I feel like stupid, little tasks like cleaning-wise and then using my time better... but it's not always the case for me.*

*-1009 Mixed Evidence*

*P: Um.. the next item is photographing children for use in our work sampling portfolios. I'm putting that in the have tos because I don't like that it takes away from just um engaging just with the kids to have to stop and take a photograph is not my favorite thing.*

*-1019 Mixed Evidence*

*P: Um. Uh, I, I feel like we do have a lot of time to do, er, we have a lot of things to do and not always a lot of time to do them. And so there's a frustration there and um you know what gets, what gets left, I guess is that that's the problem. Like how do we fit in all this time and it's frustrating because we can't get everything done and some of these things that we have to get done that maybe take us out of the classroom or even that we're doing that are in the classroom takes away from, you know, takes us away from those interactions. Like writing um profiles or um having...uh it's mostly paperwork things when it comes down to it, but sometimes meetings. Sometimes even meeting that I have to have.*

*-1012 Leaning to Discrepancy*

*P: Um. I feel the daily note taking and the, the log sheets are cumbersome because when you have ten children and there are... um, you have a very limited amount of time to get that stuff done by the end of the day. Um, I feel that as a lead teacher and as a caregiver in the school, I*



*want to spend 100% of the time with these children, just because they look to me for support, education, guidance, and, and actually love ... and when I'm being taken away from that because I have to get a report done, or I have to make a phone call to a parent, or I have to do something that isn't child focused, but has to do with the child...sometimes I feel um... that I'm losing that precious moment with the child.*

*-1004 Leaning to Discrepancy*

*P: Um. For assessments... that's a have to do. Um. I wish we didn't have to do so much assessment. We do learn a lot about our kids by doing assessments, um, but sometimes I feel like it takes over um either my time, or even my interactions with kids sometimes... because I'm worried about getting my assessments in, um getting a certain amount done or um doing observations or assessments in certain areas where maybe a child doesn't typically um do something in that area, or it isn't, isn't very, a strong, a very strong area for them... but yet I still have to collect information on them to know where they're at. And um, I feel like I do that well on my own, so having to go through um kinda forcing proof or evidence sometimes for a computer system or for my um administrators, etcetera can be stressful. And I feel like that takes away from our experiences with the kids sometimes.*

*-1031 Mixed Evidence*

#### **3.2.1.4.2 Harmony, Compatibility, or Agreement of Card Items**

Far more minimally identified was how tasks fit together, showing harmony or compatibility. However, the following excerpt provides evidence that this phenomenon does exist, and how requirements fit with participant priorities and values. Of note is that this

participant was qualitatively identified as characteristic of compatibility/fit (rather than discrepancy).

*P: ... yeah I just feel like it all just kind of goes hand in hand and I feel like if you care about the children and what you do you want to see them thrive, excel. Um I think just looking out for their best interests...*

*R: Okay...*

*P: ... is what I was thinking throughout the process.*

*R: Gotcha. Could you tell me um...what you, what you mean by um go hand in hand, what things go hand in hand?*

*P: Um... I was kind of seeing how some of the state requirements and things that we're required to do by the child care center also go hand in hand with uh my priorities because I want to make sure that we're looking out for the children's best interests and we're making sure that the children are developing... um... and thriving... um... and they're on par... they're... um kind of on par with where they're at for their age group.*

*-1029 Leaning to Compatibility/Fit*

### **3.2.1.5 A Priori Codes: The Mention of Control (or Synonyms/Descriptions)**

Participants at times mentioned the construct of control, or a description of it -- being able to choose or have a choice. They discussed having options (or not) over completing certain tasks, and discussed how choice was considered when thinking about have to dos, want to dos, and both groups -- particularly want to dos. This construct, was not identified or discussed to the extent expected, however, the consideration that choice (i.e., control) is important and supports components of their well-being was highlighted at least minimally.

*P: Um... portfolio collection is usually a have to do. Um. It is just collecting some of the child's artwork and having a little note, um... I feel that it's more of a have to do... because I don't necessarily get to pick what I really want to show in that portfolio. We kinda made like a list that we cycle through the year and yeah, it shows kind of progress, but, I just kinda do it to get it done in a way. Um. I think if I had more control over it I would be a little more, happier about it, but it's an every month thing. So it kinda gets a little tedious every month taking a picture, every month collecting an artwork, every month getting a note that oh he knows his letter C now... so it's kind of tedious I think and repetitive sometimes.*

*-1038 Mixed Evidence*

*P: Um... I think I just want to say that the have tos feel like, give me more tension in my heart. You know, the things that are both are like, I feel like I have some autonomy and the want tos is like full autonomy, so that makes me feel like I, I'm choosing. And that's always an, it's always really important. I feel like for children and for adults, like if you choose something, it's like you feel a little bit more connected to it and more um accountable. Does that make sense?*

*R: Mmhmm.*

*P: So like I think that uh when I, the things that are in my have tos um I feel are, you know, annoy me. The things in my both somewhat annoy me, and the things in the want tos are like my deep, my more, like deep interests and my deeper like connections to the classroom. Yeah?*

*-1021 Leaning to Discrepancy*

*P: Watering our plants. That would be a want to do. I enjoy that. Most the plants I brought in because I like having them in the room. That's my choice.*

*-1028 Leaning to Discrepancy*

*P: Okay um... The have tos are your things that you don't have a choice with like naptime, toileting, recording attendance. Not the fun stuff. Has to be done but you know, not the fun stuff.*

*-1033 Mixed Evidence*

*P: Um just trying to think about each one individually um and, and think about how I feel about it, why I feel that way, if it's something that someone else has told me I have to do, um or if it's a, a requirement or a responsibility or if it's something I choose to do. Um and, and just kind of deciding on each individual one, where, which way it is. I, I never really thought about these things in this way before.*

*-1031 Mixed Evidence*

### **3.2.1.6 Emergent Codes: Making Sense of the Required and the Aspired**

Some emergent code content provided additional and highly valuable insight into how caregivers made sense of the required and the aspired tasks they do each day. Perhaps even more vital than their rationale for (the a priori code) individual task placements, participants' overall rationale (where they discuss more generally how they made sense of the groups, or compare their rationale across the three groups), provides an even richer understanding of their sense-making around their work experience.

### 3.2.1.6.1 Overall Rationale for Categories

A sampling of excerpts that highlighted participant explanation of their overall rationale for their placement of their tasks into the three groups, Have to dos, Want to dos, and Both are included below. A variety of themes within participant thoughts and feelings are shared that include: personal preference, personal choice, the party responsible for the required nature of the task or where the volition is placed (e.g., the director, the regulating body, the caregiver her- or himself), expressions of joy and enjoyment versus job obligation, going above and beyond the job description and beyond what other staff choose (or not) to do, the types of tasks used as examples, the importance or value placed on the task by the caregiver, for whom the task is beneficial (the children, the caregiver her- or himself), and the order that participants thought about each group to place their tasks.

*P: Um I guess there seems to be a distinct breakdown between caretaking activities and then like educational, creative activities in that caretaking activities are more have to do and then the activities that are for the enjoyment of the kids in the center um are either both or want to dos.*

*-1015 Not enough evidence*

*P: Um I was just thinking know, you know just the three different categories and um really just which, what would fit best. If it's something that... First I thought is, is it something um that I wanted to do, I guess that was my first approach. Did I want to do this or did I have to. And then I thought about the both afterwards. But I was like, is it, do I want to do it, most of the time it fit into the have to category. And then I had to think, well, is this a program... is this, is this*

*something that the program makes me do, or like do I also want to do it too to keep up. So, that's why there are so many in the both.*

*-1034 Leaning to Compatibility/Fit*

*P: Um I think they're arranged basically like, first started, things that were like generally set that I had to do and then over time the things that I've grown to do... not that, like, like things that like have, yeah, different. The have to dos are like things that were really like, when I got the job you know, you have to do this, and this, and this. And then the both were things like where I generally started to do, like just in the classroom environment, I just picked up and I just started to, you know, do it just to help the environment. And then the want to dos are probably what I wanna help out more in, like I wanna help more with prepping and setting up the... um... setting up the... Mmm I lost the word for it right there, I'm sorry.*

*R: That's okay.*

*P: Setting up the...projects and the... um... the written aspect of it.*

*-1025 Not enough evidence*

*P: Okay, so well I just went down, in the, like whenever I had typed them in, I mostly sort of went in chronological to our day, somewhat, and um, so how I went about arranging them was really just whether um...whether it's something I like to do, or not, whether it's something that I... um, find rewarding and um or whether it's just kind of a part of what we have to do because, well have to. (laugh). That wasn't very profound. (laugh). um.. hmm.. let me think about how I can say this better. Ah yeah...I guess it's really kind of whether it's something that I like to do and find rewarding, or whether it's um, a little bit more of a mundane task that just has to be done.*

*And, I guess to some degree too whether I see value, in, to some degree, that's not entirely true, but to some degree for some of them. It was whether I see value in the activity too. Or the task, I should say.*

*-1019 Mixed Evidence*

*P: Well I guess like (audible breath) kind of like differentiating between what I consider as you know, required and maybe what was required by work, cuz I feel like those are two very different things. Um you know like what the bare minimum of what I should be doing there, but then there's you know, there's always above and beyond, um and I always try to do that. So I think mm, you know, the both category was stuff I have to do and know that I want to do, but then the want to dos are things that I felt important, like the [phone application], or relationships with children and families. So.*

*-1016 Leaning to Compatibility/Fit*

*P: Um I think I was trying to think if it was something that I had to do because the director said I had to do it (laugh) or if it was something that I wanted to do because it was better for children um and how it was needed um in the classroom, and just, I feel like most of the things to make my life easier as a lead teacher, it's a both because if I don't do it or a lot of the things if I you know, don't do a lesson plan for a couple weeks, if I don't document, if I don't put things into [photo application] as we're going through the day, it just creates more things at pickup, in the following week, then I have to go back weeks to create lesson plans, and then I can't remember what I did, um when I go to do profiles, at the six month mark, if I don't have all that stuff done and organized, then it just makes my life a lot harder.*

*-1010 Leaning to Compatibility/Fit*

*P: Um, I just went down in order and I don't think I really had an approach for a lot of that I had in the both category. It's something that I do... I know that I have to do for my job but I also enjoy doing. The things I want to do are things that aren't necessarily written out as a requirement, but things that I find important to do with my kids. And then like the have tos are things that are written out that are like essential in every single child care setting.*

*-1030 Mixed Evidence*

*P: Um basically I was thinking about the things that are part of my job, you know that I am required to do, um and the things that I really care about doing, like the things that I would do even if it wasn't part of my job. So you know I, I appreciate that attending planning meetings is part of, part of my job and I, I appreciate that they give me time to have planning meetings on the job, but also I would probably be like texting my coworkers outside of work anyway to plan, so that's a both cuz it's something that I have to do and that would I want to do. Um and so basically I was just kind of thinking about like okay what was I told I'd have to do and then what are things that I would want to do anyway.*

*-1026 Leaning to Compatibility/Fit*

*P: Um... I think that by thinking about... my job description, and putting that stuff more in the have to do, um and then the things that I kind of do myself, and I'm not exactly... told to do I put in the um want to do, um and then in the middle, I put things there that I'm, I guess what I think is, are expected of me, but um, also things that I encourage myself to do and choose to do.*



*-1014 Not enough evidence*

*P: Um I was thinking of like have to dos as things that like I don't necessarily enjoy, but I obviously have to do them because they're part of my job. Um. The both I was putting them there as like things that sometimes I feel like are just have to do and sometimes like I really enjoy doing. And then the want to dos are things that like I really enjoy doing, like I want to do it. It's the part of my job that I enjoy.*

*-1022 Mixed Evidence*

*R: Okay great. Um so can I ask um just some follow-up questions about -- What were you thinking while you were arranging your tasks?*

*P: Um just kinda about the things I enjoy doing while I'm at work, whereas the have to dos are kind of more just things that don't necessarily, I don't, don't bring me joy while I'm at work necessarily, but I know they're, they're things that I need to do. Um. For both I feel like most of them, I was just thinking, most of them are both cause most of them were things that I have to do and that I also enjoy doing which is why I do do the type of work that I am doing.*

*R: Okay.*

*P: Um and I think have to dos are kinda just more required things.*

*-1011 Leaning to Compatibility/Fit*

*P: ...If it was a baseline requirement of what my job title is I put it under have to do, and if it was a combination of what I have to do and how I like to do it I put it under both.*

*-1006 Mixed Evidence*

*P: Um. I feel like I was thinking about like the past experience I've had with doing a lot of this stuff. So like, it's like when I was signed, when I not signed up for this job, but like when I originally applied for the job it had like a description and then I was told what I'd be doing in like my interview room, and then I was also told you know by my teachers in the classroom what they would want me to be doing, so there's a lot of that, like this is what has to be done. And then there's the stuff that no one really told me to do and I wanted to do, which I guess is more like me getting books for my toddlers in the classroom, because no one has to tell me to do it, I just kinda go and do it, and I'm like, I get excited, cuz there's so many books there and they're all excited. Um. And then I feel like the both is a little bit of both, so you know like some of them can be stressful but some of them can be really rewarding and like I want to do it, so it's like, you know doing the art projects, like I want to do it but I also get really stressed out, by the idea of doing because it's like you have to do it.*

*-1041 Mixed Evidence*

*P: If I, If I'd volunteer to do something, I put it under want. Uh, but I also had to do it, like then I put it under both. And if I was volunteering to do something that nobody else did then I put it under want to. And if I would not volunteer but I'd be willing to do it, I put it under have to do*

*-1005 Mixed Evidence*

In addition, some participant excerpts were particularly aligned with the hypotheses of this study and study implications, while some were particularly divergent from the majority of participant sentiment. The following sampling of excerpts highlights the alignment:

*P: And then the second one is providing developmentally appropriate activities, and I've listed like what areas, art, music, science, social studies, literacy, language, physical development, block play... um that's something that I have to do for the program because we are [regulation] accredited and [regulation] but it's also something, because I've worked in child care for so long and I have my own children that I feel like you have to do it but it's something you want to do cause it's what's best. So you just kinda do that.*

*-1010 Leaning to Compatibility/Fit*

*P: I feel like most of the have to dos, if you wanna do them, and you like what you do, the have to dos and the wanna dos just turn into the both... (laugh), if that makes sense.*

*-1010 Leaning to Compatibility/Fit*

*P: Okay. Um... I was looking at what I had typed and I was thinking, is this important to me, is this important and required by the school, um the state or both, and then I was thinking... why is this important to me and um... are they both. Is, is it something that I also feel passionately about that's also important if it's a requirement. Um... Yeah.*

*-1029 Leaning to Compatibility/Fit*

*P: ...Okay. Um along with the um arranging everything, I think on putting the list in a have to do order, a both, or a want to do is, like I said very organization... oriented. That way, I can see, okay I do have to do this activity, um I have to get my credits. Do I enjoy getting my credits? Can I look up um something that I am...looking forward to seeing, or something I want to know a*

*little bit more about that will help me in the classroom. So even if I just made a list in general um, not even using the both or want to do and then being like, okay I need to look up my [type of professional development credits] and professional development. Alright, I'd like to know more about behavioral management strategies, and I'd like to know, oh let's talk more about water play or I need some more science or math activities, um just being creative too and, and trying new things out and creating lesson plans and things like that you can um you can want to do those because you're finding the new activities.*

*-1038 Mixed Evidence*

*P: Um. So I just went down the list one by one, the, the items, based on what I had there, and just really tried to think about whether it's something that has to be done um, or whether it was something I wanted to do, um or if it fell under both. Cuz for me, a lot of them did fall under both, so just really thinking about um... wanting to do it would be something that I um like or enjoy or uh I at least see the benefit to doing it and so that makes it a want. Have to dos are more of the, this is required for me to do my job or someone else has told me that I have to do it, and maybe I don't enjoy it, or maybe I don't want to do it, but it's still part of my job.*

*R: Gotcha, and then your both would be...*

*P: Um both is, is a combination...*

*R: Yeah...*

*P: ...of the two. I think, you know something I've been told I have to do but it's something that I also believe in or enjoy to some extent, so um that's, that's what made it fall under both.*

*-1031 Mixed Evidence*

*P: Um... How I, Um. I think some of the kind of cut and dry things were in the have to, the simple things like bus duty. Things that really aren't umm... not as emotionally tied maybe is the word that I can use... would go into the have to dos box. Inputting the data, the food prep, those are things that are simple tasks that you do daily, it's not like an emo... there's no emotional tie to it. Yes it involves the children and it affects the children but it doesn't completely impact their learning... besides the inputting the data, Yes that needs to be done so that whoever needs to look at it can look at it and get information about the children... but maintaining the budget, the children don't really know about that or the families. So it's not something that directly affects them and that is visible to them. Um...*

*R: And how about the both and the want to dos?*

*P: In both uhh... I didn't put anything in the want do tos cause I felt like the majority was want to do and have to do.*

*R: Gotcha.*

*P: Um...*

*R: And so how did you think about the both?*

*P: Both I think, looking at my list, the things that I put there...I just think are no brainers. I think if you're invested in your families and children and you're invested as a teacher and want to do what's best for your profession, for the children, for the families, for your self-learning... those are things that you should want to do. Although those are also things that you have to do. And not go through the motions of it. So I'm thinking of the want to dos not going through the motions of doing something, it's actually truly believing that this is in the best interest of the population we're serving, the children and the families.*

*- 1042 Mixed Evidence*

And the following sampling of excerpts highlights the divergence, as tasks that are implicitly or explicitly different in the understanding or description of the task groups than has largely been described by the other participants.

*P: Um... Let's see. And I think um...And I, I, I, I think I'm gonna also move um... the uh initiate teacher led activities to involve small groups ah 2, 3, or 4 children to engage in. I think I'm gonna move that to want to also.*

*R: Okay.*

*P: And again...It's, It's while it is part of, while it is a part of my job, it's something that I want to um, I, I want to involve the children in. I want to challenge them, I want to, have them um be successful in the things that they're able to do, but also I want to encourage them to uh, to try something new, if they're, if they're not quite sure how to do it.*

*-1033 Mixed Evidence*

*P: The want to dos, they are more...they were more, I was thinking more of, of... a lot of the want to dos are... areas that not only benefit the other person, um but they benefit me. Um so that's how I was, I was thinking about the want to dos and, and how much um... like the parent conferences, how I can use my knowledge to help someone else. Um supervising another, the other staff members...What, I've been there longer than the like the two people in my classroom. So there are things that are kinda like... not, not verbalized um or non-verbalized um rules and things that we do or don't do. Um...the want to dos are trying to help them to know this before*

*like, get themselves into situations. (laugh) ...and they need, you know what I mean. I don't. But I don't know. That's how I was thinking. (laugh)*

*R: Yeah.*

*P: ...Thinking of want to do.*

*-1020 Mixed Evidence*

*P: Like, want to dos as something that I just want to throw in, like maybe a special activity, or something above and beyond that's not required.*

*R: Gotcha.*

*P: And I have to is do something that's written in my job description.*

*R: And then the both?*

*P: And both sometimes it falls in either category.*

*-1044 Mixed evidence*

*P: Right and so I, I put the ones that were important in the both -- to me those are important and have to be done on a daily basis.*

*R: Gotcha.*

*P: The other ones are the have to dos... I do them because they're important to me. And the want to dos are if I get to them, great... if not that's okay too.*

*-1001 Leaning to Discrepancy*

### **3.2.1.6.2 Excerpt to Note**

Along with the whole of the discussion of participant experience, particularly poignant is the following excerpt, which was coded with those including those with the emergent code, *use*

*of the word love. These words illustrate an experience that is highly positive, can be characterized as exuding compatibility and fit, as well as the ability to be ever-evolving and agile in the early care and education field.*

*R: What were you thinking while you were arranging your tasks?*

*P: Um, Well it excited me because it feels like the work that's required of me it's all work I want to do, and then there's some of the things that I do just because I want to do it. So it's a lot of um living the life I love. You know it's still work, now I do have to get up in the morning and make my lunch and do all of the, you know, but then there's a lot of joy in my work because I get to create the environment, I get to be creative, I get to think about what we're doing so I get to think about the philosophical piece, I get to share with other teachers and collaborate and glean ideas from them share what then they have something that sometimes I know something because I have more experience but of course it's always good to um like this year we had new teachers and I was a sort of new um different mm ideas about what the classroom's, how it should be run, and um, I'm I, some of the ideas I'm taking in stride, so, and I was, I was looking for ideas to maybe question what I'm doing and take a new look at things. I was, I was ready to look at things with new eyes. So that happened this year.*

*-1045 Leaning to Compatibility/Fit*

### **3.2.2 Professional Caregiver Experience of Discrepancy: Category Determination**

Participant discrepancy category determination was a priori to-be-determined based on 1) the number of tasks in each of the Have to do, Want to do, and Both groups from the discrepancy activity, 2) the characterization given the qualitative analysis of the interview during and after



the discrepancy activity, and 3) the score (and the score's characterization) of the two discrepancy questionnaire items post-activity and interview.

### **3.2.2.1 Discrepancy Activity: Quantitative Summary**

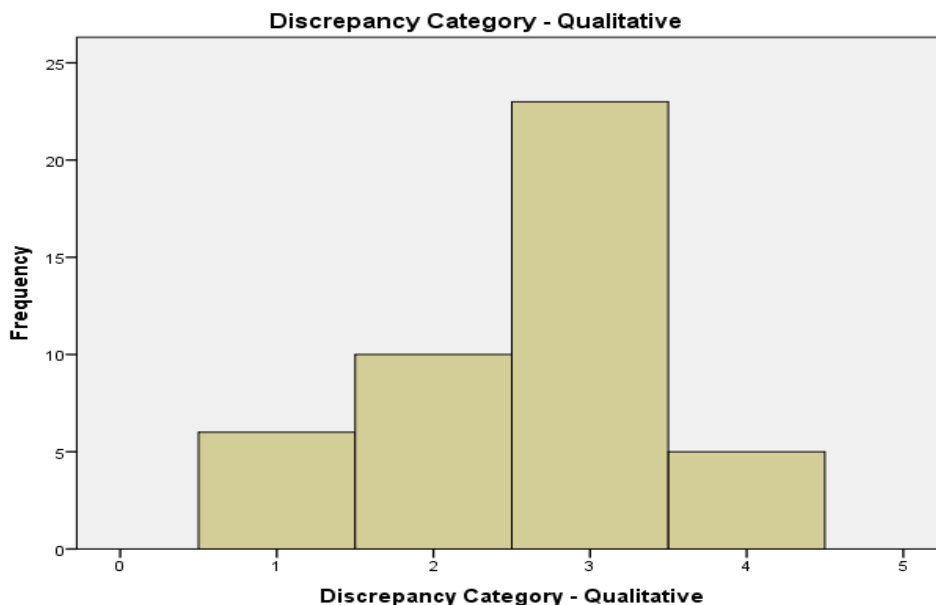
Participants ( $n=44$ ) submitted an average of 14.27 ( $SD = 5.88$ ) total items, categorized across all three Have to do, Want to do, and Both categories, with a minimum number of overall items at 4 and a maximum number of overall items at 25 (out of a possible 25) submitted. The number of items submitted was determined by the participant, and no number of items was required or suggested by the researcher. Participants, however, were told that the items they recorded on the entry page would be used for the activity on the following page, but were not told what the activity would entail.

Participants ( $n=44$ ) submitted 1) an average of 4.36 ( $SD = 3.17$ ) Have to dos, with a minimum of 0 and a maximum of 16; 2) an average of 2.66 ( $SD = 3.09$ ) Want to dos, with a minimum of 0 and a maximum of 12; and 3) an average of 7.25 ( $SD = 4.92$ ) Both items, with a minimum of 2 and a maximum of 20. Important, however, are the number of items in each category for each individual participant as they relate to overall participant conceptualization. This is discussed within Research Question 5.

### **3.2.2.2 Discrepancy Category: Qualitative Determination**

Qualitative coding and rationale based on this coding was the basis of the qualitative discrepancy determination for each participant ( $n=44$ ). Six participants (13.6%) presented with Evidence Leaning to Discrepancy and 10 participants (22.7%) presented with Evidence Leaning to Compatibility/Fit. Twenty-three participants (the majority, 52.3%) presented with Mixed Evidence -- their interviews illustrating both discrepancy and compatibility/fit, either overtly

mixed or presenting with nuance. Five participants (11.4%) did not present with enough evidence to make a qualitative determination. (see Figure 21)



- 1 = "Existence of Evidence for Discrepancy"
- 2 = "Existence of Evidence for Compatibility / Fit"
- 3 = "Existence of Mixed Evidence"
- 4 = "Not Enough Evidence"

**Figure 21 Discrepancy Category, Qualitative**

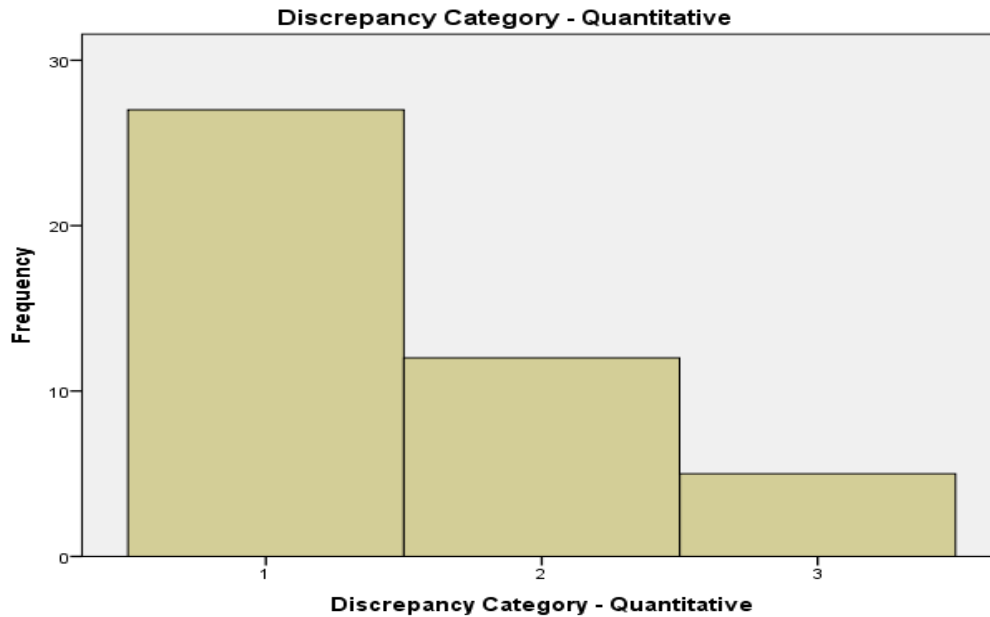
### 3.2.2.3 Discrepancy Category: Quantitative Determination

Descriptive analysis was completed for the quantitative discrepancy scores, with response options for all three scores on a scale of 2-10, where a higher score is reflective of higher levels of discrepancy. In addition, frequency analysis was completed for discrepancy scores partitioned into categories of Low Discrepancy Category (scores 2-4), Moderate Discrepancy Category (scores exactly 5-7), and High Discrepancy Category (scores greater than 8-10). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average Discrepancy score of 4.32 ( $SE = 0.29$ ;  $SD = 1.95$ ), with a minimum score of 2 and a maximum score of 8. Twenty-seven participants (the majority, 61.4%) fell into the Low Discrepancy Category, 12 participants (27.3%) fell into the Moderate Discrepancy Category, and 5 participants (11.4%) fell into the High Discrepancy Category. (see Figure 22 and Figure 23)



Figure 22 Discrepancy Score



- 1 = "Low Discrepancy Category (2-4)"
- 2 = "Moderate Discrepancy Category (5-7)"
- 3 = "High Discrepancy Category (8-10)"

**Figure 23 Discrepancy Category, Quantitative**

### **3.2.2.4 Discrepancy Category: Qualitative Versus Quantitative Determination**

An analysis was run to determine the match between the qualitative and the quantitative discrepancy determination. Here, a match was indicated if the participant's discrepancy category was determined to be 1) Evidence Leaning to Compatibility/Fit (in the qualitative determination) and the Low Discrepancy Category (in the quantitative determination), and 2) Evidence Leaning to Discrepancy (in the qualitative determination) and the High Discrepancy Category.

In the first analysis, Mixed Evidence (in the qualitative determination) was said to be a match with the Moderate Discrepancy Category (in the quantitative determination), and with those without enough evidence qualitatively unable to match. In the second analysis, both those with Mixed Evidence and Not Enough Evidence qualitatively were unable to match. This second analysis was run provided it could be argued that a participant with Mixed Evidence is not

equivalent to a participant with Moderate Discrepancy. Mixed evidence could illustrate experiences on both ends of the spectrum, while Moderate could illustrate discrepancy somewhere in the middle.

In the first analysis (where Mixed Evidence and Moderate Discrepancy indicated a match), 19 participants (43.2%) were a match between qualitative and quantitative determinations, 20 participants (46.5%) were not a match between qualitative and quantitative determinations, and 5 participants (11.4%) did not present with enough evidence qualitatively, and thus were unable to match.

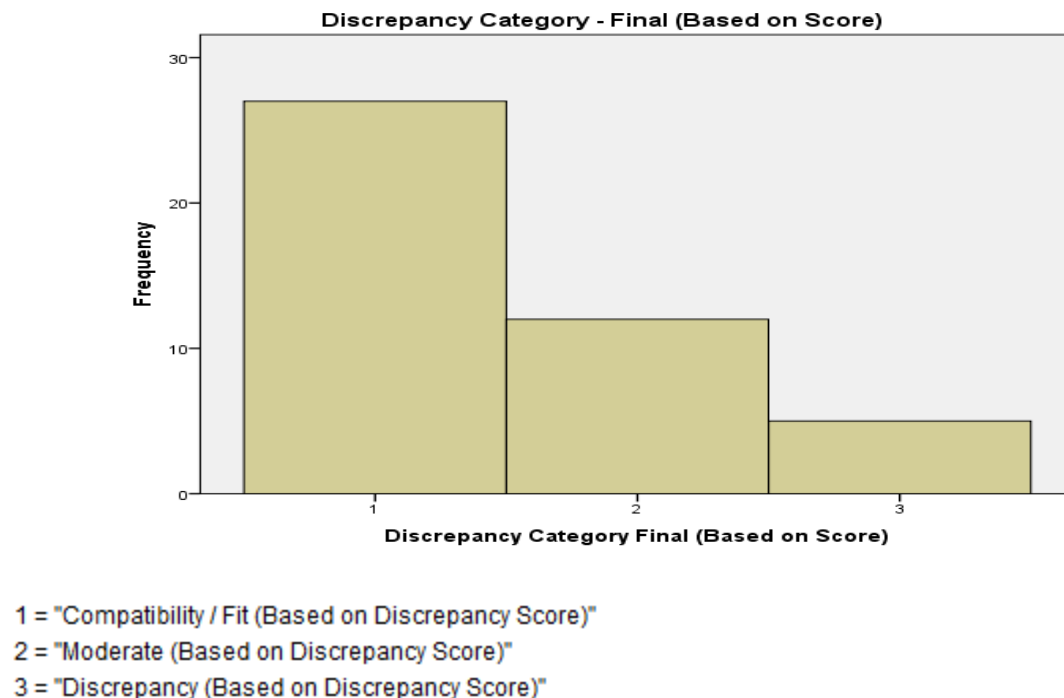
In the second analysis (where those with Mixed Evidence were unable to match), 11 participants (25%) were a match between qualitative and quantitative determinations, and 5 participants (11.4%) were not a match between qualitative and quantitative determinations. Twenty-three participants (52.3%) presented with Mixed Evidence, and were thus not able to match, and again, 5 participants (11.4%) did not present with enough evidence qualitatively, and thus were also unable to match.

Provided the large number of participants presenting with Mixed and Not Enough Evidence qualitatively (28 participants, 63.6%) and the uncertainty if the Mixed Evidence (qualitatively) approximates the Moderate Discrepancy Category (quantitatively) -- and the lack of a high level of match either way -- it requires that the final discrepancy determinations fall to the most objective measure available.

### **3.2.2.5 Discrepancy Category: Final Determination**

The number of participants presenting with Mixed Evidence and Not Enough Evidence within the qualitative determination (28 participants, 63.6%), the overall lack of consistent match between the qualitative determination and the quantitative determination (19 participants, 43.2%

matching if Mixed Evidence and Moderate Discrepancy are considered a match; 11 participants, 25% matching if they are *not* considered a match), and the amount of nuance illustrated within the participant interviews warranted the use of the most objective measure, the quantitative scores. The quantitative score splits determined the final discrepancy categories to which participants were grouped, such that Low Discrepancy Category = Compatibility/Fit, Moderate Discrepancy Category = Moderate, and High Discrepancy Category = Discrepancy. (See the Methods section for the quantitative discrepancy scores split rationale.) Twenty-seven participants (the majority, 61.4%) thus fell into the overall Compatibility/Fit Category, 12 participants (27.3%) fell into the overall Moderate Category, and 5 participants (11.4%) fell into the overall Discrepancy Category. (see Figure 24)



**Figure 24 Discrepancy Category, Final**

### 3.3 Research Question 3

RQ 3. Is the experience of discrepancy between required and aspired work associated with a higher frequency/increased severity of professional caregiver issues of mental health and well-being?

#### 3.3.1 The Experience of Discrepancy Between Required and Aspired Work

Rather than utilizing the proposed qualitative discrepancy categories, categories derived by the quantitative discrepancy scores were utilized to determine the final discrepancy category for each participant. (Please see *Results: Discrepancy category: Final determination* for RQ2 for rationale.) Descriptive analysis was completed for these quantitative discrepancy scores, with response options for all three scores on a scale of 2-10, where a higher score is reflective of higher levels of discrepancy. In addition, frequency analysis was completed for discrepancy scores partitioned into categories of Low Discrepancy Category (scores 2-4), Moderate Discrepancy Category (scores exactly 5-7), and High Discrepancy Category (scores greater than 8-10). (Please see Methods section for partitioning rationale.) These splits thus indicated the discrepancy categories to which participants were grouped, such that Low Discrepancy Category = Compatibility/Fit, Moderate Discrepancy Category = Moderate, and High Discrepancy Category = Discrepancy.

Participants ( $n=44$ ) reported an average Discrepancy score of 4.32 ( $SE = 0.29$ ;  $SD = 1.95$ ), with a minimum score of 2 and a maximum score of 8. Twenty-seven participants (the majority, 61.4%) fell into the Low Discrepancy Category and thus the overall Compatibility/Fit Category, 12 participants (27.3%) fell into the Moderate Discrepancy Category and thus the

overall Moderate Category, and 5 participants (11.4%) fell into the High Discrepancy Category and thus the overall Discrepancy Category.

### **3.3.2 Professional Caregiver Mental Health and Well-Being**

#### **3.3.2.1 Global Psychological Stress**

Descriptive analysis was completed for quantitative scores of participant global psychological stress (measured with the PSS10), with response options on a scale of 0-40, where a higher score is reflective of higher levels of global psychological stress. In addition, frequency analysis was completed for PSS10 scores partitioned into categories of Lower PSS10 Category (scores 0-13), Moderate PSS10 Category (scores 14-26), and Higher PSS10 Category (scores 14-26). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average PSS10 score of 17.32 ( $SE = 1.08$ ;  $SD = 7.16$ ), with a minimum score of 5 and a maximum score of 34. Sixteen participants (36.4%) fell into the Lower PSS10 Category, 24 participants (the majority, 54.5%) fell into the Moderate PSS10 Category, and 4 participants (9.1%) fell into the Higher PSS10 Category.

#### **3.3.2.2 Depression**

Descriptive analysis was completed for quantitative scores of participant depression (measured with the CES-D), with response options on a scale of 0-60, where a higher score is reflective of higher levels of depression. In addition, frequency analysis was completed for CES-D scores partitioned into categories of Depression Symptomology Absent (scores 0-15) and Depression Symptomology Present (scores 16-60). (Please see Methods section for partitioning rationale.)



Participants ( $n=44$ ) reported an average CES-D score of 11.59 ( $SE = 1.48$ ;  $SD = 9.81$ ), with a minimum score of 0 and a maximum score of 47. Thirty-two participants (the majority, 72.7%) fell into the Depression Symptomology Absent category, and 12 participants (27.3%) fell into the Depression Symptomology Present category.

### **3.3.2.3 Anxiety**

Descriptive analysis was completed for quantitative scores of participant anxiety (measured with the GAD-7), with response options on a scale of 0-21 -- where a higher score is reflective of higher levels of anxiety. In addition, frequency analysis was completed for GAD-7 scores partitioned into categories of Minimal AND Mild GAD Category (scores 0-9), Moderate GAD category (scores 10-14), and Severe GAD Category (scores 15-21). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average GAD-7 score of 5.25 ( $SE = 0.74$ ;  $SD = 4.89$ ), with a minimum score of 0 and a maximum score of 18. Thirty-five participants (the majority, 79.5%) fell into the Minimal AND Mild GAD Category, 6 participants (13.6%) fell into the Moderate GAD Category, and 3 participants (6.8%) fell into the Severe GAD Category.

### **3.3.2.4 Correlation Across Scores of Mental Health and Well-Being**

Results of Pearson correlations indicated that 1) there was a significant positive association between global psychological stress score and depression score, ( $r(42) = .79$ ,  $p < .001$ ); 2) there was a significant positive association between global psychological stress score and anxiety score, ( $r(42) = .67$ ,  $p < .001$ ); and 3) there was a significant positive association between depression score and anxiety score, ( $r(42) = .76$ ,  $p < .001$ ).

### 3.3.3 Relations: The Experience of Discrepancy and Mental Health and Well-Being

#### 3.3.3.1 Frequencies and Patterns: Discrepancy and Global Psychological Stress

When examining categorically participant discrepancy and levels of global psychological stress, there exist expected frequencies of  $<5$  in 6 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 9), a non-significant result, (two-sided)  $FE = 5.78$ ;  $p = .172$ , tells us that we cannot reject the null hypothesis that there is no association between discrepancy and participants' global psychological stress. Thus, we conclude that there exists no relation between these two variables from these data.

**Table 9 RQ3 Category of Discrepancy and Global Psychological Stress**

	Low Global Psychological Stress (Lower PSS10 Category, 0-13)	Moderate Global Psychological Stress (Moderate PSS10 Category, 14-26)	High Global Psychological Stress (Higher PSS10 Category, 27-40)	Total
Compatibility/Fit (scores 2-4)	12	14	1	27
Moderate (scores 5-7)	4	6	2	12
Discrepancy (scores 8-10)	0	4	1	5
Total	16	24	4	44

It is important that caution be used when viewing these frequencies, as Fisher's Exact Test indicated no statistically significant relation between these variables. Twelve (12) of the 27 participants categorized as experiencing Compatibility/Fit presented with lower global psychological stress. There was, however, one participant categorized as experiencing Compatibility/Fit who presented with higher global psychological stress, and 14 of the 27

participants categorized as experiencing Compatibility/Fit also presented with moderate global psychological stress. Half of the 12 participants categorized as experiencing Moderate Discrepancy (6 participants) presented with moderate global psychological stress, however, four of these participants categorized as experiencing Moderate Discrepancy presented with low global psychological stress, and two presented with high global psychological stress. For those categorized as experiencing Discrepancy, none presented with low global psychological stress, and one presented with high global psychological stress, as hypothesized. However, in addition, four participants categorized as experiencing Discrepancy presented with global psychological stress at the moderate level. The lack of strong discernable pattern fits with the statistical evidence of the Fisher's Exact Test. (see Table 9)

### 3.3.3.2 Frequencies and Patterns: Discrepancy and Depression

When examining categorically participant discrepancy and levels of depression there exist expected frequencies of  $<5$  in 3 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 10), a non-significant result, (two-sided)  $FE = 3.89$ ;  $p = .119$ , tells us that we cannot reject the null hypothesis that there is no association between discrepancy and participants' depression. Thus, we conclude that there exists no relation between these two variables from these data.

**Table 10 RQ3 Category of Discrepancy and Depression**

	Depression Absent (Depression Symptomology Absent, CES-D, 0-15)	Depression Present (Depression Symptomology Present, CES-D, 16-60)	Total
Compatibility/Fit (scores 2-4)	22	5	27
Moderate (scores 5-7)	8	4	12

Discrepancy (scores 8-10)	2	3	5
Total	32	12	44

It is important that caution be used when viewing these frequencies, as Fisher's Exact Test indicated no statistically significant relation between these variables. Twenty-two (22) of the 27 participants categorized as experiencing Compatibility/Fit presented without depression symptomology (as hypothesized), however 5 participants categorized as experiencing Compatibility/Fit did present with depression symptomology. Those categorized as experiencing Moderate discrepancy presented both with (4) and without (8) depression symptomology, and those categorized as experiencing Discrepancy also presented both with (3) and without (2) depression symptomology, with no overt discernable pattern. The lack of strong discernable pattern fits with the statistical evidence of the Fisher's Exact Test. (see Table 10)

### 3.3.3.3 Frequencies and Patterns: Discrepancy and Anxiety

When examining categorically participant discrepancy and levels of anxiety, there exist expected frequencies of  $<5$  in 7 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 11), a non-significant result, (two-sided)  $FE = 7.28$ ;  $p = .070$ , tells us that we cannot reject the null hypothesis that there is no association between discrepancy and participants' anxiety. Thus, we conclude that there exists no relation between these two variables from these data.

**Table 11 RQ3 Category of Discrepancy and Anxiety**

	Minimal AND Mild Anxiety  (Minimal AND Mild GAD Category, 0-9)	Moderate Anxiety  (Moderate GAD Category, 10-14)	Severe Anxiety  (Severe GAD Category, 15-21)	Total
Compatibility/Fit (scores 2-4)	22	4	1	27
Moderate (scores 5-7)	11	0	1	12
Discrepancy (scores 8-10)	2	2	1	5
Total	35	6	3	44

It is important that caution be used when viewing these frequencies, as Fisher's Exact Test indicated no statistically significant relation between these variables. Twenty-two (22) of the participants categorized as experiencing Compatibility/Fit presented with Minimal/Mild Anxiety. However, one participant categorized as experiencing Compatibility/Fit presented with severe anxiety, and four participants categorized as having this experience presented with Moderate Anxiety. Those categorized as experiencing Moderate discrepancy presented both with minimal/mild anxiety (11) and severe anxiety (1) (and none with Moderate Anxiety), and those categorized as experiencing Discrepancy presented with each level of anxiety, minimal/mild (2), moderate (6), and severe (1) anxiety, with no overt discernable pattern. The lack of strong discernable pattern fits with the statistical evidence of the Fisher's Exact Test. (see Table 11)

#### **3.3.3.4 Continuous Scores: Discrepancy and Global Psychological Stress, Depression, and Anxiety**

To determine if the continuous scores of participant discrepancy showed a relation with the continuous scores of participant mental health and well-being, Pearson correlations were

conducted. Results of Pearson correlations indicated that 1) there was a significant positive association between discrepancy score and global psychological stress score, ( $r(42) = .32, p = .035$ ); 2) there was no significant association between discrepancy score and depression score, ( $r(42) = .27, p = .077$ ); and 3) there was no significant association between discrepancy score and anxiety score, ( $r(42) = .18, p = .238$ ).

### **3.4 Research Question 4**

RQ 4. Is a DCS composition containing high control (as compared with DCS compositions with lower levels of control) associated with a lower frequency/severity of discrepancy experienced between required and aspired work?

#### **3.4.1 Participants' Level of Control**

##### **3.4.1.1 Participant Perceptions of Control**

Descriptive analysis was completed for the quantitative perception scores of control, with response options on a scale of 1-5, where a higher score is reflective of higher levels of control. In addition, frequency analysis was completed for perception scores partitioned into categories of lower control (scores less than 3), moderate control (scores exactly 3), and higher control (scores greater than 3). (Please see Methods section for partitioning rationale.)

Participants ( $n=44$ ) reported an average Control score of 3.15 ( $SE = 0.11$ ;  $SD = 0.76$ ), with a minimum score of 1 and a maximum score of 5. Fourteen participants (31.8%) fell into

the Lower Control Category, 3 participants (6.8%) fell into the Moderate Control Category, and 27 participants (the majority, 61.4%) fell into the Higher Control Category.

#### **3.4.1.2 Participant Indicator of Control**

Given a priori instructions, participant demand, control, support characterizations were also given an Indicator of Control, such that those falling within the lower or moderate levels of control were identified as exhibiting Diminished Control. Seventeen participants (38.6%) exhibited this Diminished Control, while 27 participants (the majority, 61.4%) exhibited scores indicative of Higher Control.

#### **3.4.2 The Experience of Discrepancy Between Required and Aspired Work**

Rather than utilizing the proposed qualitative discrepancy categories, categories derived by the quantitative discrepancy scores were utilized to determine the final discrepancy category for each participant. (Please see *Results: Discrepancy category: Final determination* for RQ2 for rationale.) Descriptive analysis was completed for these quantitative discrepancy scores, with response options for all three scores on a scale of 2-10, where a higher score is reflective of higher levels of discrepancy. In addition, frequency analysis was completed for discrepancy scores partitioned into categories of Low Discrepancy Category (scores 2-4), Moderate Discrepancy Category (scores exactly 5-7), and High Discrepancy Category (scores greater than 8-10). (Please see Methods section for partitioning rationale.) These splits thus indicated the discrepancy categories to which participants were grouped, such that Low Discrepancy Category = Compatibility/Fit, Moderate Discrepancy Category = Moderate, and High Discrepancy Category = Discrepancy.

Participants ( $n=44$ ) reported an average Discrepancy score of 4.32 ( $SE = 0.29$ ;  $SD = 1.95$ ), with a minimum score of 2 and a maximum score of 8. Twenty-seven participants (the majority, 61.4%) fell into the Low Discrepancy Category and thus the overall Compatibility/Fit Category, 12 participants (27.3%) fell into the Moderate Discrepancy Category and thus the overall Moderate Category, and 5 participants (11.4%) fell into the High Discrepancy Category and thus the overall Discrepancy Category.

### **3.4.3 Relations: Level of Control and the Experience of Discrepancy**

#### **3.4.3.1 Frequencies and Patterns: Control and Discrepancy for All DCS Compositions**

All participants ( $n=44$ ) have been identified as falling into one of three Control characterizations, Lower Control, Moderate Control, and Higher Control. All participants have also been assigned an indicator of control, such that those falling within the lower or moderate levels of control are identified as exhibiting Diminished Control. When examining categorically participant control and experience of discrepancy there exist expected frequencies of  $<5$  in 3 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 12), a non-significant result, (two-sided)  $FE = 1.37$ ;  $p = .490$ , tells us that we cannot reject the null hypothesis that there is no association between level of control (grouped as a dichotomy of Diminished Control or Higher Control) and participants' experience of discrepancy. Thus, we conclude that there exists no relation between these two variables from these data.



**Table 12 RQ4 DCS Composition Focused on the Control Dimension and Category of Discrepancy**

	Compatibility/Fit (scores 2-4)	Moderate (scores 5-7)	Discrepancy (scores 8-10)	Total
Diminished Control: DCS Containing Lower or Moderate Control	12	3	2	17
DCS Containing Higher Control	15	9	3	27
Total	27	12	5	44

It is important that caution be used when viewing these frequencies, as Fisher's Exact Test indicated no statistically significant relation between these variables. Twelve of the 17 participants categorized as having Diminished Control fell within the Compatibility/Fit group, wholly counter to hypothesis, while three participants categorized as having Diminished Control fell within the Moderate Discrepancy group. Only two of the 17 participants categorized as having Diminished Control fell into the Discrepancy Category, those two participants aligning with the hypothesis. More fitting with the hypothesize pattern, 15 of the 27 participants experiencing Higher Control were also categorized as experiencing Compatibility/Fit, however, 9 of those participants experiencing Higher Control also fell within the Moderate Discrepancy category, and 3 fell within the overall Discrepancy Category. The lack of strong discernable pattern fits with the statistical evidence of the Fisher's Exact Test. (see Table 12)

#### **3.4.3.2 Frequencies and Patterns: Control and Discrepancy for At-Risk DCS Compositions**

When examining only participants categorized as At-Risk based on their DCS composition (and focusing on their level of control), both of the two participants categorized as

At-Risk presented with Lower Control (one with Lower Control and Lower Support, and one with Lower Control and Moderate Support) and both were categorized as experiencing Compatibility/Fit based on Low Discrepancy Scores. Though the sample size of the At-Risk group is small (only 2), this is wholly counter to the hypothesized pattern. Because both participants fell within the same groups, no statistical test for relations could be completed.

### **3.4.3.3 Frequencies and Patterns: Control and Discrepancy for Buffered-Risk DCS**

#### **Compositions**

When examining only participants categorized as Buffered-Risk based on their DCS composition (and focusing on their level of control), 3 of the 11 Buffered-Risk participants did *not* include a Higher Control Buffer (they were buffered only by Support), while, 8 of the 11 Buffered-Risk participants were buffered by either Higher Control OR Higher Control and Higher Support (at least including Higher Control, but potentially also including Higher Support).

When examining categorically participant level of control and experience of discrepancy there exist expected frequencies of  $<5$  in 6 cells, thus Fisher's Exact test was used (Freeman & Campbell, 2007). Provided the pattern of results (see Table 13), a non-significant result, (two-sided)  $FE = 1.68$ ;  $p = .515$ , tells us that we cannot reject the null hypothesis that there is no association between level of control and participants' experience of discrepancy. Thus, we conclude that there exists no relation between these two variables from these data.

**Table 13 RQ4 Buffered-Risk Participants: DCS Composition Focused on the Control Dimension and  
Category of Discrepancy**

	Compatibility/Fit (scores 2-4)	Moderate (scores 5-7)	Discrepancy (scores 8-10)	Total
Buffered-Risk - No Control Buffer (Only Support Buffer)	0	1	2	3
Buffered Risk - Higher Control OR Higher Control and Higher Support	2	4	2	8
Total	2	5	4	11

It is important that caution be used when viewing these frequencies, as Fisher's Exact Test indicated no statistically significant relation between these variables. None of the 3 participants categorized as lacking Control as a buffer (with only Higher *Support* as a buffer) reported an experience of Compatibility/Fit and two of those participants experienced Discrepancy, which aligns with the hypothesized pattern (and the remaining one experiencing Moderate Discrepancy). Two participants of the 8 categorized as including Control as their buffer (either Higher Control alone as their buffer, or Higher Control and Higher Support together as their buffers) experienced Compatibility/Fit (as hypothesized), however, 4 participants categorized as including Control as a buffer experienced Moderate Discrepancy, and 2 experienced overall Discrepancy. The lack of strong discernable pattern fits with the statistical evidence of the Fisher's Exact Test. (see Table 13)

#### **3.4.3.4 Continuous Scores: Level of Control and Participants' Experience of Discrepancy**

To determine if the continuous scores of participant perception of control showed a relation with the continuous scores of participant experience of discrepancy, a Pearson correlation was conducted. Results of the Pearson correlation indicated that there was no significant association between control score and discrepancy score, ( $r(42) = .17, p = .273$ ).

### **3.5 Research Question 5**

RQ 5. Is there a pattern among the composition of a professional caregiver's demand-control-support characteristics, experience of discrepancy, and mental health and well-being?

- a. Do higher risk characteristics (i.e., high demand, low control, low support, at-risk DCS composition, and experience of discrepancy) often occur together, and are they associated with a higher frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)?
- b. Do lower risk characteristics (i.e., low demand, high control, high support, not at-risk / buffered risk DCS composition, and no experience of discrepancy) often occur together, and are they associated with a lower frequency/severity of all measured professional caregiver issues of mental health and well-being (i.e., global psychological stress, depression, anxiety)?
- c. Are buffering characteristics/control features associated with characteristics and caregiver mental health and well-being in-line with theoretical models?

### **3.5.1 Participant Case Conceptualizations**

Each participants' case conceptualization was compiled for a visible (color-coded) view of the focal variables of 1) qualitative discrepancy category, 2) quantitative discrepancy category, 3) final discrepancy category, 4) demand category, 5) control category, 6) support category, 7) DCS characterization, 8) global psychological stress category, 9) depression category, 10) anxiety category, and 11) the proportions of their discrepancy activity have to do, both, and want to do items. Case conceptualizations can be seen to vary widely across the included 44 participants, with some that overtly align or approximate the hypotheses of this study, some that are overtly counter to these hypotheses, and many that illustrate nuance and information yet to be explored. Please refer to the case conceptualizations in Tables 14-28 for illustrations of the following remarks about those that align, approximate, or counter these hypotheses, and the many conceptualizations that can be argued to fall somewhere in between.

Table 14 RQ5 Caregiver Conceptualizations 1001, 1002, 1003

<u>ID</u>	<u>1001 --</u>	<u>1002 *</u>	<u>1003 *</u>
Date	10/3/2018	11/17/2018	12/2/2018
Qual Discrep. Category	Leaning to Discrepancy <sup>3</sup>	Existence of Mixed Evidence <sup>6</sup>	Existence of Mixed Evidence <sup>6</sup>
Quant Discrep. Category	8 - High Discrepancy <sup>3</sup> Category (8-10)	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)	2 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Discrepancy <sup>3</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1001</b></p> <p>Want to dos, 2</p> <p>Have to dos, 3</p> <p>Both, 5</p>	<p><b>1002</b></p> <p>Want to dos, 5</p> <p>Have to dos, 2</p> <p>Both, 3</p>	<p><b>1003</b></p> <p>Want to dos, 5</p> <p>Have to dos, 4</p> <p>Both, 4</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 15 RQ5 Caregiver Conceptualizations 1004, 1005, 1006

ID	1004 --	1005 --	1006 *
Date	12/2/2018	12/12/2018	1/9/2019
Qual Discrep. Category	Leaning to Discrepancy <sup>3</sup>	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	4 - Low Discrepancy <sup>1</sup> Category (2-4)	2 - Low Discrepancy <sup>1</sup> Category (2-4)	2 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Lower Control Category <sup>3</sup> (Less than 3)	Lower Control Category <sup>3</sup> (Less than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p>1004</p> <p>Want to dos, 2</p> <p>Have to dos, 10</p> <p>Both, 6</p>	<p>1005</p> <p>Want to dos, 4</p> <p>Have to dos, 4</p> <p>Both, 8</p>	<p>1006</p> <p>Want to dos, 0</p> <p>Have to dos, 3</p> <p>Both, 3</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

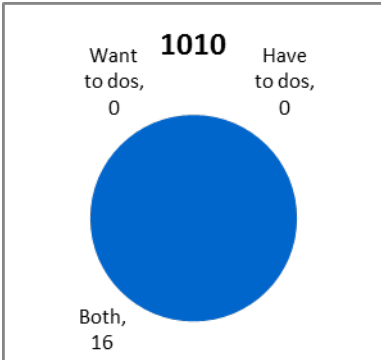
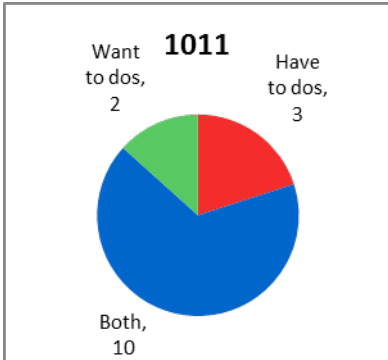
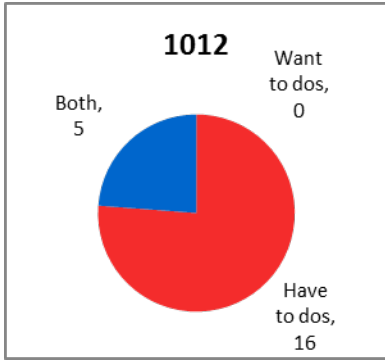
Table 16 RQ5 Caregiver Conceptualizations 1007, 1009

<u>ID</u>	<u>1007 *</u>	<u>1008 - Excluded from analysis</u>	<u>1009 --</u>
Date	1/12/2019		1/16/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>		Mixed Evidence <sup>6</sup>
Quant Discrep. Category	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)		5 - Moderate Discrepancy <sup>2</sup> Category (5-7)
Final Discrep. Category	Moderate <sup>2</sup> (Based on Discrepancy Score)		Moderate <sup>2</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)		Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)		Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)		Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other		Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)		Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)		Depression <sup>3</sup> symptomology present (16-60)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)		Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1007</b></p> <p>Want to dos, 1</p> <p>Have to dos, 6</p> <p>Both, 14</p>		<p><b>1009</b></p> <p>Want to dos, 2</p> <p>Have to dos, 9</p> <p>Both, 8</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
 + A perfect match, -- Not a match, \* A close match



Table 17 RQ5 Caregiver Conceptualizations 1010, 1011, 1012

<u>ID</u>	<u>1010 --</u>	<u>1011 --</u>	<u>1012 --</u>
Date	1/19/2019	1/19/2019	1/23/2019
Qual Discrep. Category	Leaning to Compatibility/Fit <sup>1</sup>	Leaning to Compatibility/Fit <sup>1</sup>	Leaning to Discrepancy <sup>3</sup>
Quant Discrep. Category	3 - Low Discrepancy <sup>1</sup> Category (2-4)	4 - Low Discrepancy <sup>1</sup> Category (2-4)	8 - High Discrepancy <sup>3</sup> Category (8-10)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Discrepancy <sup>3</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Moderate Demand Category <sup>2</sup> (Exactly 3)
Control Category	Lower Control Category <sup>3</sup> (Less than 3)	Lower Control Category <sup>3</sup> (Less than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Ambiguous risk <sup>5</sup> = Moderate level(s) of DCS characteristics that do not fall into another category
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	 <p>1010</p> <p>Want to dos, 0</p> <p>Have to dos, 0</p> <p>Both, 16</p>	 <p>1011</p> <p>Want to dos, 2</p> <p>Have to dos, 3</p> <p>Both, 10</p>	 <p>1012</p> <p>Want to dos, 0</p> <p>Both, 5</p> <p>Have to dos, 16</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 18 RQ5 Caregiver Conceptualizations 1013, 1014, 1015

<u>ID</u>	<u>1013 --</u>	<u>1014 *</u>	<u>1015 *</u>
Date	1/26/2019	1/26/2019	2/3/2019
Qual Discrep. Category	Leaning to Compatibility/Fit <sup>1</sup>	Not Enough Evidence <sup>7</sup>	Not Enough Evidence <sup>7</sup>
Quant Discrep. Category	2 - Low Discrepancy <sup>1</sup> Category (2-4)	5 - Moderate Discrepancy <sup>2</sup> Category (5-7)	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Lower Control Category <sup>3</sup> (Less than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1013</b></p> <p>Want to dos, 1</p> <p>Have to dos, 3</p> <p>Both, 9</p>	<p><b>1014</b></p> <p>Want to dos, 2</p> <p>Have to dos, 5</p> <p>Both, 3</p>	<p><b>1015</b></p> <p>Want to dos, 1</p> <p>Have to dos, 5</p> <p>Both, 4</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 19 RQ5 Caregiver Conceptualizations 1016, 1017, 1018

<u>ID</u>	<u>1016 --</u>	<u>1017 +</u>	<u>1018 --</u>
Date	2/17/2019	2/23/2019	2/23/2019
Qual Discrep. Category	Leaning to Compatibility/Fit <sup>1</sup>	Leaning to Discrepancy <sup>3</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	8 - High Discrepancy <sup>3</sup> Category (8-10)	3 - Low Discrepancy <sup>1</sup> Category (2-4)	2 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Discrepancy <sup>3</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Moderate Control Category <sup>2</sup> (Exactly 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Moderate Control Category <sup>2</sup> (Exactly 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Lower Support Category <sup>3</sup> (Less than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>3</sup> symptomology present (16-60)
Anxiety	Severe GAD <sup>3</sup> Category (15-21)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Moderate GAD <sup>2</sup> Category (10-14)
Discrep. Activity	<p>1016</p> <p>Want to dos, 5</p> <p>Have to dos, 0</p> <p>Both, 20</p>	<p>1017</p> <p>Want to dos, 2</p> <p>Have to dos, 4</p> <p>Both, 4</p>	<p>1018</p> <p>Want to dos, 12</p> <p>Have to dos, 3</p> <p>Both, 10</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 20 RQ5 Caregiver Conceptualizations 1019, 1020, 1021

<u>ID</u>	<u>1019 +</u>	<u>1020 *</u>	<u>1021 --</u>
Date	3/12/2019	3/17/2019	3/17/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>	Leaning to Discrepancy <sup>3</sup>
Quant Discrep. Category	2 - Low Discrepancy <sup>1</sup> Category (2-4)	2 - Low Discrepancy <sup>1</sup> Category (2-4)	8 - High Discrepancy <sup>3</sup> Category (8-10)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Discrepancy <sup>3</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Higher Demand Category <sup>3</sup> (Greater than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>3</sup> symptomology present (16-60)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Moderate GAD <sup>2</sup> Category (10-14)
Discrep. Activity	<p><b>1019</b></p> <p>Want to dos, 0 Have to dos, 6 Both, 10</p>	<p><b>1020</b></p> <p>Have to dos, 2 Both, 2 Want to dos, 9</p>	<p><b>1021</b></p> <p>Want to dos, 5 Have to dos, 7 Both, 8</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray

+ A perfect match, -- Not a match, \* A close match

Table 21 RQ5 Caregiver Conceptualizations 1022, 1023, 1024

ID	1022 --	1023 --	1024 --
Date	3/18/2019	3/20/2019	3/23/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>	Not Enough Evidence <sup>7</sup>	Not Enough Evidence <sup>7</sup>
Quant Discrep. Category	5 - Moderate Discrepancy <sup>2</sup> Category (5-7)	4 - Low Discrepancy <sup>1</sup> Category (2-4)	3 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Lower Support Category <sup>3</sup> (Less than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Higher PSS10 Category <sup>3</sup> (27-40)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1022</b></p> <p>Want to dos, 10</p> <p>Have to dos, 9</p> <p>Both, 5</p>	<p><b>1023</b></p> <p>Want to dos, 3</p> <p>Have to dos, 1</p> <p>Both, 4</p>	<p><b>1024</b></p> <p>Want to dos, 0</p> <p>Have to dos, 6</p> <p>Both, 2</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 22 RQ5 Caregiver Conceptualizations 1025, 1026, 1027

<u>ID</u>	<u>1025 *</u>	<u>1026 *</u>	<u>1027 +</u>
Date	3/24/2019	3/24/2019	3/24/2019
Qual Discrep. Category	Not Enough Evidence <sup>7</sup>	Leaning to Compatibility/Fit <sup>1</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	5 - Moderate Discrepancy <sup>2</sup> Category (5-7)	3 - Low Discrepancy <sup>1</sup> Category (2-4)	2 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Lower Control Category <sup>3</sup> (Less than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)	Lower PSS10 Category <sup>1</sup> (0-13)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1025</b></p> <p>Want to dos, 1</p> <p>Have to dos, 4</p> <p>Both, 2</p>	<p><b>1026</b></p> <p>Want to dos, 1</p> <p>Have to dos, 5</p> <p>Both, 4</p>	<p><b>1027</b></p> <p>Want to dos, 2</p> <p>Have to dos, 2</p> <p>Both, 4</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 23 RQ5 Caregiver Conceptualizations 1028, 1029, 1030

<u>ID</u>	<u>1028 --</u>	<u>1029 +</u>	<u>1030 --</u>
Date	4/2/2019	4/3/2019	4/6/2019
Qual Discrep. Category	Leaning to Discrepancy <sup>3</sup>	Leaning to Compatibility/Fit <sup>1</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	4 - Low Discrepancy <sup>1</sup> Category (2-4)	4 - Low Discrepancy <sup>1</sup> Category (2-4)	4 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Higher Demand Category <sup>3</sup> (Greater than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Lower Support Category <sup>3</sup> (Less than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	At risk <sup>3</sup> = Higher demand, lower/moderate control, lower/moderate support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Moderate GAD Category <sup>2</sup> (10-14)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Moderate GAD Category <sup>2</sup> (10-14)
Discrep. Activity	<p><b>1028</b></p> <p>Want to dos, 7 Both, 5 Have to dos, 4</p>	<p><b>1029</b></p> <p>Want to dos, 1 Both, 9 Have to dos, 1</p>	<p><b>1030</b></p> <p>Want to dos, 2 Both, 4 Have to dos, 6</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
 + A perfect match, -- Not a match, \* A close match

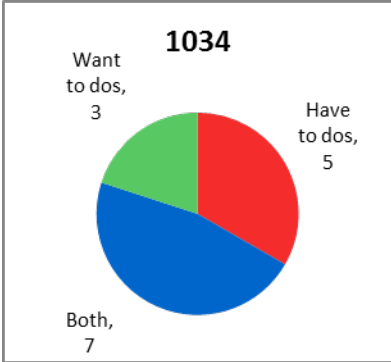
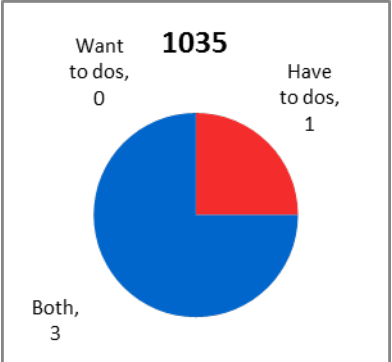
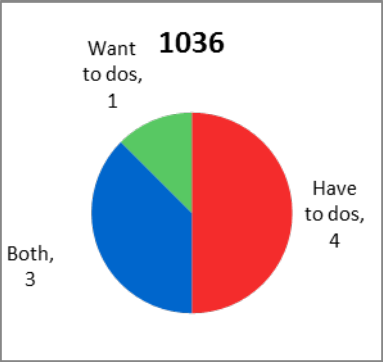
Table 24 RQ5 Caregiver Conceptualizations 1031, 1032, 1033

<u>ID</u>	<u>1031 --</u>	<u>1032 --</u>	<u>1033 *</u>
Date	5/1/2019	5/2/2019	5/4/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	2 - Low Discrepancy <sup>1</sup> Category (2-4)	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)	3 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Lower Control Category <sup>3</sup> (Less than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Moderate Support Category <sup>2</sup> (Exactly 3)	Moderate Support Category <sup>2</sup> (Exactly 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	At risk <sup>3</sup> = Higher demand, lower/moderate control, lower/moderate support	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Higher PSS10 Category <sup>3</sup> (27-40)	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Severe GAD Category <sup>3</sup> (15-21)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p>Want to dos, 1 Have to dos, 3 Both, 6</p>	<p>Want to dos, 0 Have to dos, 5 Both, 8</p>	<p>Want to dos, 11 Have to dos, 3 Both, 8</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match



Table 25 RQ5 Caregiver Conceptualizations 1034, 1035, 1036

<u>ID</u>	<u>1034 --</u>	<u>1035 *</u>	<u>1036 --</u>
Date	5/9/2019	5/11/2019	5/13/2019
Qual Discrep. Category	Leaning to Compatibility/Fit <sup>1</sup>	Mixed Evidence <sup>6</sup>	Leaning to Compatibility/Fit <sup>1</sup>
Quant Discrep. Category	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)	7 - Moderate Discrepancy <sup>2</sup> Category (5-7)	3 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Moderate <sup>2</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Higher PSS10 Category <sup>3</sup> (27-40)	Lower PSS10 Category <sup>1</sup> (0-13)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>3</sup> symptomology present (16-60)
Anxiety	Severe GAD Category <sup>3</sup> (15-21)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity			

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 26 RQ5 Caregiver Conceptualizations 1037, 1038, 1039

<u>ID</u>	<u>1037 +</u>	<u>1038 --</u>	<u>1039 +</u>
Date	5/15/2019	5/21/2019	5/22/2019
Qual Discrep. Category	Leaning to Compatibility/Fit <sup>1</sup>	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	4 - Low Discrepancy <sup>1</sup> Category (2-4)	8 - High Discrepancy <sup>3</sup> Category (8-10)	4 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Discrepancy <sup>3</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Higher Demand Category <sup>3</sup> (Greater than 3)	Higher Demand Category <sup>3</sup> (Greater than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Lower Support Category <sup>3</sup> (Less than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Lower Support Category <sup>3</sup> (Less than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other
Global Psychol. Stress	Lower PSS10 Category <sup>1</sup> (0-13)	Higher PSS10 Category <sup>3</sup> (27-40)	Lower PSS10 Category <sup>1</sup> (0-13)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Moderate GAD Category <sup>2</sup> (10-14)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p>1037</p> <p>Want to dos, 1</p> <p>Have to dos, 1</p> <p>Both, 12</p>	<p>1038</p> <p>Want to dos, 6</p> <p>Have to dos, 8</p> <p>Both, 7</p>	<p>1039</p> <p>Want to dos, 0</p> <p>Have to dos, 2</p> <p>Both, 19</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
 + A perfect match, -- Not a match, \* A close match

Table 27 RQ5 Caregiver Conceptualizations 1040, 1041, 1042

<u>ID</u>	<u>1040 --</u>	<u>1041 *</u>	<u>1042 *</u>
Date	5/26/2019	5/26/2019	5/26/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>
Quant Discrep. Category	3 - Low Discrepancy <sup>1</sup> Category (2-4)	4 - Low Discrepancy <sup>1</sup> Category (2-4)	4 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Higher Control Category <sup>1</sup> (Greater than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)	Moderate PSS10 Category <sup>2</sup> (14-26)
Depression	Depression <sup>3</sup> symptomology present (16-60)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Moderate GAD Category <sup>2</sup> (10-14)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p>Want to dos, 0</p> <p>Both, 4</p> <p>Have to dos, 4</p>	<p>Want to dos, 1</p> <p>Both, 10</p> <p>Have to dos, 11</p>	<p>Want to dos, 0</p> <p>Both, 20</p> <p>Have to dos, 5</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

Table 28 RQ5 Caregiver Conceptualizations 1043, 1044, 1045

<u>ID</u>	<u>1043 *</u>	<u>1044 *</u>	<u>1045 --</u>
Date	5/28/2019	5/29/2019	5/29/2019
Qual Discrep. Category	Mixed Evidence <sup>6</sup>	Mixed Evidence <sup>6</sup>	Leaning to Compatibility/Fit <sup>1</sup>
Quant Discrep. Category	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)	6 - Moderate Discrepancy <sup>2</sup> Category (5-7)	2 - Low Discrepancy <sup>1</sup> Category (2-4)
Final Discrep. Category	Moderate <sup>2</sup> (Based on Discrepancy Score)	Moderate <sup>2</sup> (Based on Discrepancy Score)	Compatibility / Fit <sup>1</sup> (Based on Discrepancy Score)
Demand Category	Higher Demand Category <sup>3</sup> (Greater than 3)	Lower Demand Category <sup>1</sup> (Less than 3)	Lower Demand Category <sup>1</sup> (Less than 3)
Control Category	Moderate Control Category <sup>2</sup> (Exactly 3)	Higher Control Category <sup>1</sup> (Greater than 3)	Lower Control Category <sup>3</sup> (Less than 3)
Support Category	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)	Higher Support Category <sup>1</sup> (Greater than 3)
DCS Characterization	Buffered risk <sup>4</sup> = Higher demand, Higher control OR Higher support, any level of the other	Not at-risk <sup>1</sup> = Lower demand, any level control and support	Not at-risk <sup>1</sup> = Lower demand, any level control and support
Global Psychol. Stress	Moderate PSS10 Category <sup>2</sup> (14-26)	Lower PSS10 Category <sup>1</sup> (0-13)	Lower PSS10 Category <sup>1</sup> (0-13)
Depression	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)	Depression <sup>1</sup> symptomology absent (0-15)
Anxiety	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)	Minimal AND Mild GAD <sup>1</sup> Category (0-9)
Discrep. Activity	<p><b>1043</b></p> <p>Want to dos, 3 Have to dos, 2 Both, 3</p>	<p><b>1044</b></p> <p>Want to dos, 1 Have to dos, 5 Both, 2</p>	<p><b>1045</b></p> <p>Want to dos, 2 Have to dos, 0 Both, 16</p>

Note: <sup>1</sup>=Green, <sup>2</sup>=Yellow, <sup>3</sup>=Red, <sup>4</sup>=Purple, <sup>5</sup>=Pink, <sup>6</sup>=Brown, <sup>7</sup>=Gray  
+ A perfect match, -- Not a match, \* A close match

### 3.5.1.1 Conceptualizations That Align With or Approximate the Hypotheses

#### 3.5.1.1.1 Favorable Workplace Experiences, Favorable Mental Health and Well-Being

Participant 1029's case conceptualization illustrates a clear pattern that holds across-the-board with the intuitive hypothesis that favorable workplace experiences are related to favorable mental health and well-being. This participant presents with an experience of compatibility/fit (rather than discrepancy), lower demand, higher control, higher support, and exists within a lower level of stress, depression absent, and a lower level of anxiety. Participant 1017 also fits with this distinction, however, this case provides for a mismatch between qualitative and quantitative determinations of discrepancy -- still with the final category determination indicating compatibility/fit -- but which could be argued to be slightly less defensible for its pattern's full alignment. A similar circumstance exists for participant cases 1027 and 1019, though they present with *mixed* qualitative evidence rather than illustrating an explicit mismatch -- yet still with a final discrepancy determination of compatibility/fit.

Some participants approximate this favorable pattern, exhibiting only *moderate* stress among the rest favorable levels for both workplace experience and mental health and well-being. Participants exhibiting this type of conceptualization include 1003 (with mixed qualitative evidence), 1006 (with mixed qualitative evidence), 1020 (with mixed qualitative evidence), 1026, 1033 (with mixed qualitative evidence), 1041 (with mixed qualitative evidence), and 1042 (with mixed qualitative evidence).

Although noted here for consideration, the mismatch between qualitative and quantitative discrepancy categories and the mixed evidence in the qualitative category were not the final call for participants' experience of discrepancy, and the final determinations for these participants *do*

*align* with this pattern of favorability across workplace experience and mental health and well-being -- determined to be compatibility/fit.

#### **3.5.1.1.1.1 Favorable Experiences and Favorable Mental Health and Well-Being With Compatibility/Fit -- but Lower Control**

A few participant cases *almost* fit across-the-board with favorable experiences and favorable mental health and well-being -- but present with one inconsistency. In these cases, participants experience compatibility/fit, but (contrary to the hypothesis) exist within the lower control category. One who is experiencing compatibility/fit would be hypothesized to exhibit higher control -- but this is not the case for these participants, and these individuals present with favorable experiences and favorable mental health and well-being other than this perception of lower control. These cases are: 1004 (with a mismatch of qualitative evidence leaning to discrepancy), 1005 (with mixed qualitative evidence), 1010, 1013, and 1045. This presentation, however still aligns with the DCS model, with lower demand as key for favorable mental health and well-being (supplemented by higher support) even in the case of lower control.

Two participants -- 1011 and 1024 -- approximate this pattern (with compatibility/fit, lower control, and all other favorable experiences and favorable mental health and well-being), but present with moderate stress. This is similar to those with across-the-board favorable experiences and favorable mental health and well-being with the exception of moderate stress.

#### **3.5.1.1.1.2 Favorable Experiences and Favorable Mental Health and Well-Being With Higher Control -- but With Moderate Discrepancy**

A few participants landed on the flipside of the previously discussed cases, where rather than presenting with favorable experiences and favorable mental health and well-being with

*compatibility/fit but lower control*, these cases presented with favorable experiences and favorable mental health and well-being with *higher control, but moderate discrepancy*. These categories of higher control and moderate discrepancy, again, do not align provided the study hypotheses, as one with higher control would be hypothesized to have compatibility/fit rather than any presentation of discrepancy, even moderate. This presentation, however still aligns with the DCS model, with lower demand as key for favorable mental health and well-being, supplemented by higher control and higher support. These cases are: 1014 (with not enough qualitative evidence), 1035 (with mixed qualitative evidence), and 1044 (also with mixed qualitative evidence).

Similar to the previous discussion, one participant -- 1002 (with mixed qualitative evidence) -- approximates this pattern (with moderate discrepancy, higher control, and all other favorable experiences and favorable mental health and well-being), but presents with moderate stress.

#### **3.5.1.1.1.3 Favorable Experiences and Favorable Mental Health and Well-Being -- but With Lower Support**

Another case conceptualization, 1037, additionally approximates the hypothesized pattern of favorable experiences and favorable mental health and well-being, though with the exception of experiencing a lower level of support. This participant presented with compatibility/fit, lower demand, higher control (but with lower support) -- and lower stress, depression absent, and lower anxiety. This conceptualization still fits with the overall hypothesized pattern, with both alignment between compatibility/fit and higher control, as well as the DCS hypothesis, keyed into lower demand as the driver (and the higher control a supplement) of favorable mental health and well-being.

#### **3.5.1.1.2 Difficult Workplace Experiences, Troubling Mental Health and Well-Being**

Participant case conceptualization 1031, although not fully aligned with the study hypotheses, approximates the pattern of difficult workplace experiences co-occurring with troubling mental health and well-being, with an increased level of risk across DCS components and severity of mental health issues. Though presenting with compatibility/fit (not aligned with the hypothesized pattern or the lower level of control experienced), the participant presented with higher demand, lower control, moderate support (and thus an at-risk characterization), and presented with a higher level of stress, present depression, and higher anxiety.

This participant's exception to the hypothesized pattern lies with the presentation of compatibility/fit (rather than discrepancy) as well as this characteristic's lack of alignment with a lower level of control (compatibility/fit  $\neq$  lower control). However, the remainder of this participant's case conceptualization illustrates the intuitive hypothesis that a difficult workplace experiences is related to troubling mental health and well-being, and also largely aligns with the DCS model hypothesis. To note, this participant did present with mixed qualitative evidence for discrepancy, however, the final determination was that of compatibility/fit.

#### **3.5.1.1.3 Difficult Workplace Experiences but With a Buffer, Supportive of Favorable Mental Health and Well-Being**

Participant case conceptualization 1039 illustrates perfectly the overall case conceptualization precisely as hypothesized, an alignment between discrepancy category and level of perceived control, and the buffering feature within the DCS model. The participant presented with 1) compatibility/fit and a higher level of control, 2) higher demand, higher control, and lower support (and thus a buffering characterization), and 3) a lower level of stress, depression absent, and a lower level of anxiety. According to the DCS model, the higher demand



in this case was buffered by the higher control, and the higher control was aligned with the compatibility/fit they experienced, with favorable experiences of each of the measures of mental health and well-being. To note, this participant did present with mixed qualitative evidence for discrepancy, however, the final determination was that of compatibility/fit.

Participant case conceptualization 1043 approximates this buffering feature, but is not in complete alignment as illustrated by the conceptualization of 1039. The participant presented with 1) alignment between moderate discrepancy and moderate control, 2) higher demand, moderate control, and higher support (and thus a buffering characterization), and 3) depression absent and lower anxiety -- but a moderate level of stress. The exception within this conceptualization is the moderate level of stress, illustrating that though potentially having some impact, the higher level of support did not fully buffer the higher level of demand in this regard. Similarly, this participant did present with mixed qualitative evidence for discrepancy, however, the final determination was that of moderate discrepancy due to researcher decision to utilize the arguably more objective quantitative characterization for all participant conceptualizations, as quantitative-qualitative characterization inconsistencies were observed.

As for participant 1007's conceptualization, while not presenting with alignment between moderate discrepancy and higher control, the buffering DCS composition of higher demand, higher control and higher support approximates buffering with regard to the participant's mental health and well-being, presenting with depression absent and lower anxiety, though with a moderate level of stress.

#### **3.5.1.1.4 Mixed Workplace Experiences, With DCS Alignment**

In participant case conceptualizations 1023 and 1025, we find that even with lower levels of control and support (1023), and a lower level of control (1025), these DCS compositions

including lower demand both present with lower stress, absent depression, and lower anxiety -- which fits with the DCS hypothesis. These conceptualizations only approximate the broader overall hypothesis, however, as the presentations of moderate discrepancy (1023) and compatibility/fit (1025) do not align with the lower level of control perceived for each. To note, these participants did not present with enough evidence qualitatively to determine discrepancy in that way, however, the participants' final determination fell within the realm of compatibility/fit (1023) and moderate discrepancy (1025).

Participant 1015's case conceptualization is largely similar (presenting with low demand along with lower control and higher support), but only approximates the full favorable features of mental health and well-being as presented by 1023 and 1025, with 1015 presenting with lower anxiety, depression absent, *but with moderate stress*. Also similar to conceptualizations 1023 and 1025, participant 1015's moderate discrepancy and lower control do not align, and also did not present with enough evidence for a qualitative determination of discrepancy -- and like participant 1025, fell into the moderate discrepancy category for the final determination.

### **3.5.1.2 Conceptualizations Largely Contrary to Hypotheses**

#### **3.5.1.2.1 Favorable Workplace Experiences, Troubling Mental Health and Well-Being**

Participant conceptualizations 1040 and 1009 illustrate a lack of alignment between favorable workplace experiences and what (as hypothesized) would be expected with regard to favorable presentations of mental health and well-being.

For participant 1040's case conceptualization, even with across-the-board favorable experiences (compatibility/fit, lower demand, higher control, and higher support), this participant presented with moderate stress, moderate anxiety, and present depression. Similarly, though not

as fully aligned -- along with an experience of higher control but moderate discrepancy (and mixed qualitative evidence), participant 1009's experience of lower demand, higher control, and higher support did not co-occur with favorable mental health and well-being, with a presentation of moderate stress and present depression (though with a lower level of anxiety).

#### **3.5.1.2.2 Difficult Workplace Experiences, Favorable Mental Health and Well-Being**

Participant 1030's case conceptualization illustrates for us (in a positive way) the lack of co-occurrence between workplace experiences and mental health and well-being. Though there is also a misalignment between the compatibility/fit and lower control, the misalignment of focus is that of an arguably highly at-risk participant (higher demand, lower control, and lower support, and thus an overall at-risk characterization) who presented with moderate stress, moderate anxiety, and absent depression. This at-risk composition of DCS characteristics would be hypothesized to co-occur with higher levels of mental health issues, which (although two components are at the *moderate* level) is not exhibited here -- not as severe as could have been predicted. To note, this conceptualization presented with mixed qualitative evidence, but with compatibility/fit with regard to the final determination.

#### **3.5.1.2.3 Difficult Workplace Experiences, With Buffers That Do Not Successfully Buffer Troubling Mental Health and Well-Being**

A number of case conceptualizations presenting with higher demand and those which would be hypothesized to buffer the detrimental effects on mental health and well-being based on higher levels of control and/or support were found to lack the expected buffering effects.

Participant 1034 presents potentially the most overt evidence against the hypothesized buffering case conceptualization, presenting with higher demand, higher control, higher support

(and thus a buffering characterization), along with higher stress, higher anxiety, and present depression. Additional buffering case characterizations exist (with higher demand as well as higher control and/or higher support) that are not acting as (fully) successful buffers for participant mental health and well-being (but not as severe as case 1043). These conceptualizations include: 1001 (exhibiting present depression and moderate stress, but lower anxiety), 1016 (presenting with moderate stress, severe anxiety, but absent depression), 1021 (presenting with moderate stress, moderate anxiety, and depression present), 1022 (illustrating higher stress, present depression, but lower anxiety), 1028 and 1018 (both presenting with moderate stress, moderate anxiety, and present depression), 1036 (presenting with moderate stress, present depression, but lower anxiety), 1038 (presenting with higher stress, depression present, and moderate anxiety), and 1032 (presenting with moderate stress, depression present, but lower anxiety).

The majority of these buffering conceptualizations (based on the DCS hypothesis) that do not successfully buffer additionally do not illustrate alignment between final discrepancy category and participant level of control. These conceptualizations include 1034 (moderate discrepancy and higher control), 1001 (discrepancy and higher control), 1016 (discrepancy and moderate control), 1022 (moderate discrepancy and higher control), 1018 (compatibility/fit and moderate control), 1036 (compatibility/fit and lower control), 1038 (discrepancy and higher control), and 1032 (moderate discrepancy and higher control). Conceptualizations 1021 and 1028, however, did align with regard to these discrepancy and control components (discrepancy and lower control, and compatibility/fit and higher control, respectively).

### 3.5.1.3 Ambiguous Risk Conceptualization

Participant 1012's case conceptualization had been determined to be that of Ambiguous risk based on a moderate level of demand. This conceptualization thus did not have a direct hypothesis with which to link or not. The mental health of this participant aligns with either a lower demand or a buffered conceptualization, as the mental health and well-being of this conceptualization fell within the lower level of anxiety, and depression absent, however with moderate stress. Here, the category of discrepancy and the higher level of control perceived by this participant are not in alignment, which is a similar characteristic within many case conceptualizations that align, approximate, or do not align with the overall study hypotheses. More information is needed for those participants like 1012 who do not fall within a particular risk category based on DCS characteristics.

### 3.5.2 Participant Case Conceptualizations: A Quantitative Summary of Fit With the Hypothesized Theoretical Model

Participant case conceptualizations were examined additionally with regard to the fit between each case conceptualization and the overall proposed theoretical study model. Case conceptualizations were categorized into one of three groups: 1) a perfect match, 2) a close match, and 3) not a match. Please refer to the case conceptualizations in Tables 8.1-8.15 to view the application of these indicators.

Across the 44 case conceptualizations, six participants (13.64%) were considered *a perfect match* with the current study's theoretical model. In order to be *a perfect match* for those participants considered *Not at-risk*, conceptualizations had to include lower demand, support and control could be at any level (lower, moderate, or higher), and each of the measures of mental

health and well-being had to be in the lowest severity category. In order to be a *perfect match* for those participants considered *At-risk*, conceptualizations had to include higher demand, no higher control or higher support buffers (where moderate was not considered to be a buffer), and each of the measures of mental health and well-being had to be in the highest severity category. In order to be a *perfect match* for those participants considered *Buffered-risk*, conceptualizations had to include higher demand, higher control **or** support (any level of the other), and each of the measures of mental health and well-being had to be in the lowest severity category. The discrepancy category and level of control had to be a match for all three levels of risk (i.e., higher control and compatibility/fit, lower control and discrepancy, or moderate control and moderate discrepancy). This examination did not include the qualitative characterization of discrepancy, as it was not the final determination of the discrepancy variable.

Across the 44 case conceptualizations, 15 participants (34.09%) were considered a *close match* with the current study's theoretical model. In order to be considered a *close match*, one to two categorizations did not align with the model (specified in the *perfect match* characteristics, above). Important to note here is that participant control and discrepancy categories could lack an explicit match and still be included in the close match group if they were not opposing (i.e., those with moderate discrepancy and lower control and those with moderate discrepancy and higher control could be included in this group if they did not exceed the number of variables misaligned, but those with discrepancy and higher control or compatibility/fit and lower control could not be included as a *close match*).

Across the 44 case conceptualizations, 23 participants (52.27%) were considered *not a match* with the current study's theoretical model. In order to be considered *not a match*, more than two categorizations did not align with the model (specified in the *perfect match*

characteristics, above). Nine of the 23 participants were *not a match* based only on opposing control and discrepancy categories. Seven of these nine conceptualizations would have been a *perfect match* if not for these opposing categories, and two of the nine would have been considered a *close match* if not for those opposing categories.

## **4.0 Discussion**

### **4.1 Research Question 1**

Based on the implications of the Demand-Control-Support Model (Johnson & Hall, 1988; Karasek, 1979) and its application in the workplace (Bourbonnais et al., 1996; Johnson & Hall, 1988; Johnson et al., 1989; Karasek, 1979) and in the ECE context specifically (Whitaker, 2015), it was hypothesized that there would be a relation between the composition of a professional caregiver's demand, control, and support characteristics and her or his mental health and well-being. In particular, it was hypothesized that (in comparison to the other two groups), 1) caregivers with an at-risk DCS composition (i.e., high demand, low control, and low support) would present with a higher frequency and/or a greater severity of issues of mental health and well-being, 2) caregivers with a not at-risk DCS composition (any composition with low demand) would present with a lower frequency and/or severity of issues of mental health and well-being, and 3) caregivers with a buffered risk DCS composition (i.e., any composition with high demand, and at least one buffering component of high control or support) would present with a lower frequency and/or severity of issues of mental health and well-being than the at-risk group.

Specific to Research Question 1, a significant relation was indicated between 1) DCS composition and global psychological stress, 2) DCS composition and depression, and 3) DCS composition and anxiety. Because only two participants fell into the at-risk composition group, it was difficult to determine if these significant associations specifically aligned with the comparisons of the hypothesized groupings, however, a visual analysis of the categorical



prevalence provides some evidence in that regard. Specifically, it shows 1) no lower end mental health category (i.e., no indication of good mental health) for those in the at-risk composition for stress and anxiety (though one in the good mental health category for depression, ratio 50/50, absent and present), 2) no higher end mental health category (i.e., no indication of challenges in mental health) for those in the not at-risk composition for stress and anxiety (though four in the higher severity end for depression, ratio 26/4, absent and present), and 3) the buffered risk participants seem to, in the majority, fall within the lower and moderate levels of stress and anxiety, though with the buffering element not apparent for depression (ratio 4/7, absent and present).

With respect to the six statistically created groups to additionally examine the relation between DCS composition and mental health and well-being, analysis indicated a significant difference among the six groups for all three measures of mental health and well-being, such that the group most obviously at-risk (Group 5) had the highest scores for stress and anxiety (but not for depression), compared to the groups not at-risk (Group 2, 3, 4, and 6, which among them captured the lowest scores for all three measures), and compared to the buffered-risk group (Group 1) which had a mean score that fell between the at-risk and the not-at risk scores for stress and anxiety (but not for depression).

Provided all evidence available, one could argue that those in the not at-risk group fared better than 1) the at-risk group and 2) the buffered-risk group (either researcher- or statistically-grouped) with regard to their mental health and well-being overall (and thus, the at-risk group fared less well than the not at-risk group). The argument for a buffering effect (those with a buffering composition faring better than those at-risk) is not as strong, but also not fully discredited provided the low number of those at-risk. Additional research must be completed to

further examine the mental health and well-being of those with the identified compositions of professional caregiver workplace experiences of demand, control, and support, in particular the comparison between the buffered risk composition and the at-risk composition -- requiring a larger number of at-risk participants in analysis to come to a more informed and stronger conclusion. A study with a larger number of participants who present with an at-risk composition (so as to more directly compare with the buffered-risk composition) could strengthen the evidence for alignment with the DCS model in future research.

These results align partially with the overall theoretical basis for this examination, as those at-risk (higher demands, lower control, and/or lower support) were generally worse off than those who were not at-risk or had buffered risk (though with less conclusive evidence for the buffering feature with a need for further examination in that area). These results thus illustrate a (partial) fit with the demand-support- control model (Johnson & Hall, 1988; Karasek, 1979) providing additional evidence for the model's utility within the ECE context and examining the workplace experiences of professional caregivers specifically. Only one known examination of the DCS model has been conducted with this context and population (Whitaker et al, 2015), with results of the current study partially aligning with and extending those context- and population- specific results.

Like Whitaker, our study found that professional caregivers who were at risk based on their ECE workplace experiences (demand, support, control) were worse off with regard to their mental health and well-being. Our study was less conclusive with depression, as the Whitaker study found, but provides stronger evidence for the connection with stress and anxiety, two other important aspects of mental health and wellness not examined by Whitaker. Additionally, this study employs a categorical examination of the DCS components (keeping the meaning of the

elements' composition intact), whereas Whitaker utilized a continuous method that arguably captures less of the original model's essence. The current study also collected, analyzed, and reported on qualitative data from these participants (and included their participation in a novel work experiences sorting task) -- neither employed by Whitaker. The current study, then, partially aligns and also extends the findings to additional components of mental health (stress and anxiety), different means of analysis, and adds qualitative depth and nuance for a richer understanding of participants' unique experiences in their individual contexts.

## **4.2 Research Question 2**

Hypotheses for Research Question 2 were developed based on a wide-ranging body of theoretical and empirical evidence including: 1) the bioecological model positing that an individual is influenced by (and influences) a unique set of contexts, (Bronfenbrenner, 1977) -- leading to individuals' uniquely developed lives and experiences, 2) literature contending that experiences and influences of particular contexts are unique to the individual, that individuals have unique perceptions and phenomenology of those experiences, and that this does occur in the workplace setting (Bone, 2015; Hoare, 2009; Lounsberry & Mitchell, 2009; Stokols, 1996), 3) the evidence for multiple perspectives of quality in and the subjective experience of the ECE context (Ceglowski, 2004; Ceglowski & Bacigalupa, 2002; Katz, 1993; Tanner, Welsh, & Lewis, 2006; Woodhead, 1998), and 4) the on-the-ground examples of the mismatch between professional caregivers' personal value systems and requirements in ECE (Sirinides et al., 2015). Based on this body of literature and the key consideration that experiences and value systems can differ across individuals (and thus also for those indicating and enforcing requirements), it was

hypothesized in this study that 1) some professional caregivers would provide evidence for an experience of discrepancy between what they want to carry out in the classroom (i.e., *aspired* tasks) and those tasks they feel they have an obligation to carry out (i.e., *required* tasks), 2) caregivers would make sense of their particular experiences of the required and aspired tasks in ways that were unique to them, and 3) they would use idiosyncratic language to express their unique experiences of these tasks in their particular classroom contexts.

Specific to study hypothesis one, quantitative results indicated 11.4% of participants in the *High Discrepancy Category* and 27.3% in the *Moderate Discrepancy Category*. An even greater number of participants presented with *Evidence Leaning to Discrepancy* within the qualitative results (13.6%), and twenty-three participants (the majority, 52.3%) presented with *Mixed Evidence* -- their interviews illustrating both discrepancy and compatibility/fit, either overtly mixed or presenting with nuance. Thus, evidence from the current study *does* exist for professional caregivers' experience of discrepancy between what they want to carry out in the classroom (i.e., *aspired* tasks) and those tasks they feel they have an obligation to carry out (i.e., *required* tasks). These results align with previous work that describes a wide range of human contextual experiences (and thus the potential for mismatches across individual perspectives and experiences), (Bone, 2015; Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006; Hoare, 2009; Lounsberry & Mitchell, 2009; Stokols, 1996) and also with previous work particular to ECE that illustrates caregivers' experience of subjectivity and their incongruity between personal values and requirements (Woodhead, 1998; Tanner et al., 2006; Katz, 1993; Ceglowski, 2004; Ceglowski & Bacigalupa, 2002; Sirinides et al., 2015).

Not to be forgotten are the positive experiences of professional caregiver compatibility/fit within this sample of caregivers, with 61.4% who fell into the *Low Discrepancy Category*

quantitatively and 22.7% who illustrated *Evidence Leaning to Compatibility/Fit* qualitatively. Though contrary to the previously described discrepancy indicators, these results *also* align and extend the literature describing a wide range of human contextual experiences (as it adds to the range of experiences of professional caregivers using these frameworks, as we describe) (Bone, 2015; Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006; Hoare, 2009; Lounsberry & Mitchell, 2009; Stokols, 1996), and also aligns with previous work particular to the ECE context that notes the subjectivity and range of experiences in that context (Woodhead, 1998; Tanner et al., 2006; Katz, 1993; Ceglowski, 2004; Ceglowski & Bacigalupa, 2002; Sirinides et al., 2015). This extends the literature on professional caregiver experiences overall (which is still emerging), and provides evidence for *positive* professional caregiver experiences, which are (arguably) not often showcased but imperative for strengths-based quality improvement.

Also as hypothesized, participants did, indeed, use idiosyncratic language to express their unique experiences, and made sense of their particular experiences in ways that were unique to them. There existed both divergent and unique experiences as well as convergent and mutually experienced themes across the whole of participant interviews. This also aligns with and provides support for the ECE context's utilization of theoretical frameworks and empirical work that highlight the individual and phenomenological nature of the contextual experience both broadly and specific to the workplace environment (Bone, 2015; Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006; Hoare, 2009; Lounsberry & Mitchell, 2009; Stokols, 1996) -- frameworks and evidence that can be further employed for the exploration of the experiences of professional caregivers.

The particular examination of discrepancy within this study was exploratory, as no research to our knowledge has examined specifically or in this way professional caregivers'

discrepancy between aspired and required tasks within the ECE classroom. Thus, this extends previous work by providing new constructs (discrepancy and cognitive dissonance) for conceptualizing and understanding the potential differences in value systems and requirements within the ECE context (e.g., reported by Sirinides et al., 2015). Based in particular on the rich qualitative narrative illuminating caregivers' own perspectives of these constructs, further examination is warranted. In addition, the method of attaining participant information was also novel, as an adapted sorting task was used (inspired by -- but quite different from -- a classic card sorting task), and was also employed remotely and digitally. This extends the ability of the researcher, practitioner, and policymaker to gain important and actionable information remotely and (arguably) without losing the depth and nuance often attributed only to lengthy, intensive, and in-person interview and assessment processes.

### **4.3 Research Question 3**

Based on cognitive dissonance theory (Festinger, 1957; Harmon-Jones & Mills, 2008; Harmon-Jones & Harmon-Jones, 2008), self-discrepancy theory (Higgins, 1987) and their empirical application (Barnett, Moore, & Harp, 2017; Elliot & Devine, 1994; Strauman, 1989; Strauman & Higgins, 1987; Watson, Bryan, & Thrash, 2016), it was hypothesized that caregivers' experience of discrepancy between required and aspired work in the classroom would be associated with a higher frequency and/or severity of issues of mental health and well-being.

Specific to Research Question 3, categorical examination of discrepancy and mental health and well-being showed no relation between discrepancy category and any of the three measures of mental health and well-being (global psychological stress, depression, or anxiety).

However, *continuous* analysis of the scores themselves (not grouped into levels particular to each measure) *did* show a significant positive association between discrepancy score and participants' global psychological stress score (but not for either anxiety score or depression score). For these participants, the experience of discrepancy (as it was measured in this study) was not associated with the frequency/levels of anxiety or depression. However, the potential exists for an association between discrepancy and *global psychological stress* and must be examined further -- as inconsistent results were found with regard to the categorical and continuous analyses.

These results align minimally (though inconclusively) with the overall theoretical and empirical bases for this examination. The finding that participants' experiences of discrepancy are linked to their experiences of global psychological stress aligns with the tenets of cognitive dissonance and discrepancy theories which posit that individuals' experiences of misalignment (the discrepancy between required and aspired work particular to our study) are associated with issues of mental health and well-being and (within discrepancy theory) these issues can become more engrained and severe over time if not addressed and resolved (Festinger, 1957; Harmon-Jones & Mills, 2008; Harmon-Jones & Harmon-Jones, 2008; Higgins, 1987). This study's finding also aligns with empirical examinations in support of these theories (Barnett, Moore, & Harp, 2017; Elliot & Devine, 1994; Strauman, 1989; Strauman & Higgins, 1987; Watson, Bryan, & Thrash, 2016). If upheld in subsequent research, the link between dissonance/discrepancy and psychological well-being (i.e., global psychological stress) would provide additional empirical evidence for the theories (which known to us is minimal) and would extend their utility into the early care and education environment. To our knowledge, these theories have not been employed within the early care and education context or with professional caregivers and could help us to better understand professional caregivers' experiences within their workplace contexts --

contexts that (within the microsystem) can directly influence overall mental health and well-being (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006).

The remaining results showing no relation between discrepancy and depression or anxiety (and the opposing results for global psychological stress) contradict the tenets of the two employed theories and their empirical support. This could point to evidence in dispute of the theories, their inability to be applied well within the ECE context, and/or to weaknesses of this study's sampling or measurement. It is important for future research to utilize a stronger indicator of discrepancy, as the scores used for these analyses are based on two author-developed questions, and (while used as the more objective measure of the construct) these scores were not fully aligned within this study itself with participants' qualitative characterizations.

#### **4.4 Research Question 4**

Two premises provided the exploratory bases for the hypothesis that DCS compositions containing high control (as compared to lower levels of control) would be associated with a lower frequency and/or severity of participant discrepancy. The first was the notion put forth by Rothbaum, Weisz, and Snyder (1982) that “people attempt to gain control not only by bringing the environment into line with their wishes (primary control) but also by bringing themselves into line with environmental forces (secondary control)” (p.5). The second was that the experience of a lack of control (based on the first premise and the tenets of cognitive dissonance and discrepancy theories) could be a proxy for the experience of discrepancy between what caregivers would do in the classroom if they had their say, and what caregivers do in the classroom when they don't have a say (Festinger, 1957; Harmon-Jones & Mills, 2008; Harmon-



Jones & Harmon-Jones, 2008; Higgins, 1987; Rothbaum, Weisz, & Snyder, 1982). Thus, if professional caregivers perceived higher control in the classroom, they would have less magnitude of distance (i.e., less dissonance, less discrepancy) to bring their environment in line with their wishes or themselves in line with their environment.

Specific to Research Question 4, no association was found between participants' indicator of control and their discrepancy category across all DCS compositions or specific to only the buffered-risk group. In addition, when observing only the at-risk participants, the data show results wholly *counter* to the discussed hypothesis, such that the two participants in the at-risk group were actually categorized as experiencing compatibility/fit (rather than discrepancy) based on their low discrepancy scores. This contradicts the exploratory premises coupling the Rothbaum, Weisz, & Snyder (1982) conceptualization of control and the tenets of cognitive dissonance and discrepancy theories (Festinger, 1957; Harmon-Jones & Mills, 2008; Harmon-Jones & Harmon-Jones, 2008; Higgins, 1987). Additional information on these variables indicates no association between continuous control and continuous discrepancy scores themselves (further contradicting the premises). Thus, the totality of this information provides evidence that high control is *not* associated with lower levels/frequency of discrepancy, challenging the premises of the study hypothesis. Because this was an exploratory conceptualization of control, this does not void this new conceptualization or the ideas that contributed to them, however, provides additional information on how these ideas may or may not work together, and/or for particular contexts or populations.

Further research must be completed (with a larger number of participants who may fall into the at-risk category) to confirm and clarify this result. Because both individuals fell into the same categories (at-risk and compatibility/fit), no statistical analysis could be completed for this

result. And as noted for Research Question 3, it will be important for future research to utilize a stronger indicator of discrepancy, as the scores used for these analyses are based on two author-developed questions, and (while used as the more objective measure of the construct) these scores were not fully aligned within this study itself with participants' qualitative characterizations.

#### **4.5 Research Question 5**

Based on all previously delineated theoretical and empirical bases (taken holistically), it was hypothesized that there would be a pattern among all professional caregivers' experiences, including perceptions of demand, control, and support, experience of discrepancy, global psychological stress, anxiety, and depression. In particular, it was hypothesized that higher risk characteristics would occur together, lower risk characteristics would occur together, and that buffering characteristics/features of control and/or support would be associated with a buffered experience regarding issues of mental health and well-being -- in-line with the identified theoretical frameworks and empirical evidence.

Across all 44 individual case conceptualizations, there exist exemplar (or near exemplar) participants whose conceptualizations align as hypothesized. As an example, participant 1039 illustrates precisely the overall buffered case conceptualization as hypothesized, with buffering features within the DCS model and the alignment between discrepancy category and level of perceived control. The participant presented with 1) higher demand, higher control, and lower support (and thus a buffering characterization), 2) compatibility/fit and a higher level of control, and 3) a lower level of stress, depression absent, and a lower level of anxiety. This participant

characterizes the complete model and with all hypothesized links upheld. (Please see Study 5 in the Results section for a discussion of other exemplars and near exemplars.)

In consideration of the allure of the flawless exemplars (i.e., the 13.64% of participant case conceptualizations that are *a perfect match* with the theoretical model -- and the 34.09% that are near exemplars with *a close match*), it is important to note, however, that there also exist case conceptualizations that both fall counter to the hypothesized pattern, and also conceptualizations that do not present with a coherent pattern (i.e., 52.27% of participant case conceptualizations that are *not a match*). These conceptualizations contradict previous theory and research each in their individual way, specific to the hypotheses that were not upheld. While these counter exemplars and more mixed conceptualizations exist within these 44 cases, it is possible that insight can be gleaned from reviewing each individual conceptualization, and (should this type of information be utilized in practice) could be used to identify areas for improvement for workplace experiences and/or professional caregiver mental health and well-being.

Though solely individual case conceptualizations, the exemplar patterns (where they occur) provide evidence for alignment with the frameworks and evidence utilized for this study's design, while those counter to and without a coherent pattern provide evidence to the contrary. Important to note, though, is that the hypothesized variable patterns are an amalgamation of hypotheses (with theoretical and empirical bases), and have not been examined previously inclusive of all variables. Thus, the exemplars with variables aligned across theoretical models and empirical evidence can be argued to be novel in their identification, and thus these presentations should be further examined in future research for their prevalence and associated characteristics, be it that of risk, resilience, or something in between.

## 4.6 Study Strengths and Limitations

### 4.6.1 Strengths

This exploratory study aimed to examine professional caregiver experiences that have been only minimally studied in previous research (and even more minimally in-combination), providing new perspectives from which to understand professional caregivers' experiences in the workplace and with regard to their mental health and well-being. Hearing directly from professional caregivers in their own words during the study interviews provided for a rich and nuanced context from which to draw an understanding of the lived experience and the meaning making surrounding these experiences, which could aid us in understanding the constructs examined in this particular study and more broadly could provide a base from which further examinations of professional caregivers and the ECE context can be launched.

The utilization of the remote task arranging activity and recorded in-process and post-process interviews was a novel and creative way to obtain information from participants beyond basic online survey questions. The cards' ability to be *digitally* moved within the survey coupled with remote interviews about that sorting process provided the many strengths of a physical (in person) card sorting task, but capitalized on the convenience of a remote setting. This mode of information-gathering helped to resolve the feasibility issues of busy participants' very limited time and inability to travel to complete the study task while still obtaining rich and insightful information from participants. Because they could complete the task wherever they wished and at the times they wished, participants who would not have been able to participate based on schedules, transportation, care of their own children, etc. were able to participate in this study -- allowing for these voices to be heard and not silenced by logistics.

This remote completion of the activity did not at all seem to diminish the rapport needed for (or supportive of) a quality in-depth discussion and the divulging of information on personal experiences. In examining the activity and interview transcripts (as well as the selected excerpts from these transcripts within this report), actually the majority of participants provided very vivid, introspective, and insightful accounts of their experiences -- some that may not be expected coming only brief minutes between “meeting” (on the phone) for the first time and engaging in the activity and interview. This rapport was vital to gaining the rich and personal details of these caregivers’ workplace experiences, and the overall qualitative context of this study would have been greatly lacking without it. Participant engagement in the study more broadly (beyond the online task and interviews) was reflected in the overall absence of missing data within the dataset -- potentially bolstered by that level of rapport.

#### **4.6.2 Limitations and Implications for Future Research**

One limitation of this study was the way in which participants were sampled and the final sample that was produced. Participants were recruited for the study via *snowball sampling* by in-person and digital word of mouth. This sampling method was utilized by necessity, as the initial recruitment plan proved unsuccessful. This snowball sampling method may have garnered participants with perspectives similar to other participants who had previously completed the study (through personal relationships and workplace friendships), and/or similar to perspectives of those in academia who had professional connections to those in the caregiving practice. In addition, more than one participant from the same center, school, or the same classroom could have been included (i.e., this was not criteria for exclusion from the study), and participants were included across different locations and types of locations (states, counties, urban, rural,

suburban) without sampling equally across these locations. Although this may have provided an over (or under) sampling of the same or similar environments, what was of interest in this study was each caregiver's unique experience within her or his context -- so the context itself provided the base from which the participant had her or his own unique experience. In future research, however, it would be important to more systematically sample participants within the same center, and/or across many centers/schools (or location type), and compare and contrast experiences of those in the same and in different environments.

In taking stock of lessons learned post-study, there were pieces of information that would have been important to obtain during this study that weren't collected and must be within future studies. Important to collect within future work includes: 1) (recent) personal life events that could impact or influence mental health, including physical illness and/or events based on key life roles or responsibilities, such as being a student (with midterms, finals) or the dynamic experience of being a parent, 2) the time of the year (including times around the holidays), as well as intense societal events (such as those that could be seen as largely traumatic for communities that experience them), 3) additional workplace information such as full-time or part-time status, the length of time participants had worked with the coworkers with whom they work currently, the length of time participants had worked with the particular children currently in their care, if they are stationary or float from room to room throughout the day/week, and if their classroom is within a center, a school system, or a service system, and 4) if they feel "stuck" in this position with no option to leave based on work or life circumstances (or if they feel they could leave if they chose to). In retrospect, this contextual information would have proved largely beneficial in support of a more holistic and contextualized understanding of participant experiences and mental health and well-being.

With regard to study analysis limitations, the researcher-derived cut points were not as clearly identified or defined as intended a priori. Though continuous scores were used for examination alongside the categorical (cut scores) analyses to ameliorate this limitation, some inconsistent outcomes may be indicative of researcher derived cut point determinations. Future research could resolve this limitation by completing additional examinations of participant data for measures that do not have author-derived cut points, and in particular with a larger number of participants to provide a wide range of experiences to observe.

Another analysis limitation was the inability to characterize all participants with certainty with regard to their discrepancy characteristics based on qualitative analysis alone. There existed haziness in some determinations based on participant nuance of experience, mixed evidence, and some lack of evidence. In comparing qualitative and quantitative characterizations, a number of mismatches were identified. The use of the two-item quantitative scores was identified as more objective than the qualitative determinations, and thus these scores were thus utilized for further study analysis on participant discrepancy. This was unplanned, as the qualitative scores were a priori planned as the determining factor of discrepancy. This inability to characterize with certainty qualitatively, the number of qualitative-quantitative mismatches, and the unplanned need to instead rely on the quantitative discrepancy scores for determination point to the lack of an additional rater or raters for the qualitative analysis as an additional limitation of this study. Important to note, though, is that the qualitative coding and discrepancy determination decisions were documented within qualitative memos and rigorously reviewed by the sole rater, and thus there is cautious confidence that the nuance and range of experiences even within each participant interview (leading to the haziness) would be captured as well by additional raters,

and/or confirmed through consensus deliberation. These important contextual details provide for a richer understanding of caregivers within the study.

This qualitative nuance and ambiguity could also be seen as a limitation from the planned analyses perspective, as a priori discrepancy determinations could not be used. As indicated above, it may in actuality be considered a strength with regard to the depth and wide-ranging nature of information gathered from professional caregivers, but understandably could be considered a limitation given the analysis plan deviation. Future research could resolve this (debatable) limitation by planning to utilize a more extensively tested quantitative measure of discrepancy for a more rigorous determination, with the qualitative narrative a priori intended to be supportive of a contextual narrative -- not a determination of characterization. Alternatively, future research could a priori acknowledge that there may be mixed evidence for qualitative determinations, and include these additional characterizations in study hypotheses.

## **4.7 Implications for Practice and Policy**

### **4.7.1 Implications for Practice**

Although study results are mixed, what this study illustrates well with regard to the DCS model is that the demand, control, and support components are measurable experiences that vary across professional caregivers and that their particular compositions have potential associations with aspects of mental health and well-being -- some of risk and some of resilience. Acknowledging these potential connections between workplace experiences and professional caregiver mental health and well-being could promote efforts in support of both vital



components (and thus by extension, potentially in support of the caregiving context itself and even children's development).

Study analysis found that there was a positive association between continuous discrepancy scores and global psychological stress scores and some participants were able to be qualitatively characterized as indeed having an experience of discrepancy in the classroom. Given that cognitive dissonance theory and self-discrepancy theory provide various means of resolution within their frameworks, intervention focused on resolving discrepancy/cognitive dissonance -- moving aspired and required tasks more in-line with one another -- may prove fruitful in support of professional caregiver well-being.

As an example, aiding all children in washing their hands at the sink at each of the required times throughout the day may seem inconsistent (i.e., dissonant, discrepant) with values for developing close relationships with the children and with supporting their developmental progress; a required health and safety task that impedes the aspired task of sensitively, responsively, and reciprocally interacting during developmentally appropriate child-driven play. The caregiver may aspire to the latter and is required to do the former. An easily accessible dissonance/discrepancy resolution would be to just not have children wash their hands during the required times; an option not acceptable or in line with standards in the classroom. However, in changing one's thinking about this handwashing exchange, a multitude of aspired relationship-building and teaching moments can exist during this required task. The caregiver must change how this requisite interaction is *perceived*, and an array of options can be available to engage in aspired work. The professional caregiver may use this handwashing time as special one-on-one time with each child, asking about what she or he did on a family vacation last week, talking about the kind words the teacher heard the child say to a friend earlier in the day, or even

working on mindfulness skills in feeling, hearing, and focusing on the water on the child's hands. The caregiver could also engage the entire group of children waiting in line in conversation, a song, or a game.

Once one perceives handwashing as an opportunity ripe for aspired work, endless possibilities exist (and the discrepancy between the required and the aspired all but vanishes). It is here where training, professional development, and education can better support professional caregivers; training individuals to identify interactions where they can adjust their thoughts and behaviors to see and perceive required tasks differently; as complementary of aspired tasks. If leadership within the child care facility (e.g., the director, principal) becomes aware that caregivers perceive handwashing as *just an aggravating regulation that takes up time and has to be followed*, they can be the catalyst for change. They can help their caregiving staff (e.g., through broader staff training or via one-on-one communication) to become aware of potential ways to *adapt* in support of their own health and well-being and thus in support of providing quality care for children. Specifically, directors could work with staff to consider ways to reframe tasks they have to do as tasks they also want to do. As an example, handwashing is a task that has to be done, but if it is paired with singing, or meaningful conversation, it might start to feel like something that the caregiver looks forward to; a Want to do as well.

#### **4.7.2 Implications for Policy**

Though study results were mixed, this study provides evidence for the benefit of policymaker assessment of these workplace experiences alongside the already required monitoring of quality in the early care setting. Many participants indicated within their task arranging activity discussion and post-activity interview that the practice of more deeply

examining their workplace experience regarding their workplace tasks was interesting to them and provided insight that they could really use and perhaps improve their work in the classroom. Providing the opportunity to engage in a task like the task arranging activity and providing information on participants' experiences in the classroom overall may bring a level of awareness (for the individual and across the center or school) toward improvement of those experiences in and of themselves and (should further examination uphold associations with mental health and well-being), link with wellness for those professional caregivers who participate.

With regard to the demand, control, support model, those in the at-risk group did overall seem to fare worse with their mental health than those in the not at-risk group. By monitoring professional caregiver workplace experiences continuously, resources could be specifically targeted to those experiencing the levels of demand, control, and support that put them at risk for mental health issues. For those at-risk, additional supports may be provided and/or strategies could be encouraged to support these caregivers. In addition, education and professional development could be required to promote awareness of the risks to mental health and well-being and of the improvements in the workplace that could be implemented for a better experience. Policymakers should also be informed of the potential inconsistencies between classroom requirements and caregivers' personal value systems, with better efforts made to consider professional caregivers' perspectives in the creation, implementation, and assessment of early care and education standards and regulations.

## 5.0 Conclusion

The exploratory nature of this study on the workplace experiences and mental health and well-being of professional caregivers provided the ability to combine theoretical models to examine theoretical constructs in ways they have not been prior and provided the ability to gain rich and nuanced contextual information on these variables with introspective and insightful discussions with professional caregivers themselves. Although results illustrated strong alignment with only some components of the study's theoretical model (and thus the theoretical models integrated from prior work), this study provides a base from which to launch impactful future research.

The results of the study indicated 1) the association between particular combinations of workplace experiences and professional caregiver mental health and well-being, 2) the wide-ranging caregiver perspectives and insights regarding aspired and required caregiving tasks within the study narrative, 3) the potential for caregivers to be characterized as experiencing discrepancy in the caregiving context, 4) evidence for the relation between the experience of discrepancy in the classroom and global psychological stress, and 5) a number of exemplar case conceptualizations that do indeed reflect the study design hypothesis overall -- providing important information for future inquiries supportive of the work and well-being of professional caregivers. Although some study hypotheses were not upheld, the examination of study methods, analyses, and results provide insight into how to conduct further and enhanced work on these constructs.

Vital insight this study provides, if nothing else, is **the need to listen deeply to professional caregivers and learn from their unique perspectives in service of their work**

**and their lives.** Based on the wide range of workplace experiences professional caregivers have demonstrated within this study and the potential link with their mental health and well-being, those in leadership positions and those in capacities of organizational influence (e.g., directors, principals) may see the value in promoting a work culture of open and authentic communication, where caregivers feel heard and supported in the ways that can best help them at that time and for their unique circumstances. Because even minimal-resource strategies targeting the ways professional caregivers see and perceive what happens in the classroom may have the potential for positive change, this open and authentic communication and the workplace adjustments that follow may be supportive of both professional fulfilment and personal wellness. Communication opens the opportunity for center leaders to know what tasks feel stressful to caregivers and creates the opportunity for altering the task or using strategies to reframe the task and see it in a new way that feels more fulfilling and meaningful. Even if the task cannot be eliminated, it might be possible to implement it in a way that feels less burdensome and more in line with caregivers' aspirations. In the words of one professional caregiver: "...*Nothing but great to have work that you like doing... (laugh) and um, and take pride in, feel good about.*" And when work completed is also work to care for children, it matters not only for the caregivers themselves, but it also can matter for the children in their care -- with implications beyond and more far reaching than within the bounds of the early care and education workplace context itself.

## Appendix A Professional and Center Characteristics

\_\_\_\_\_What is your age?  
\_\_\_\_\_I prefer not to respond about my age.

What is your gender?  
\_\_\_\_\_Male  
\_\_\_\_\_Female  
\_\_\_\_\_Other \_\_\_\_\_  
\_\_\_\_\_I prefer not to respond

What race do you consider yourself to be? You may indicate one or more.  
\_\_\_\_\_American Indian or Alaskan Native  
\_\_\_\_\_Asian  
\_\_\_\_\_Black or African American  
\_\_\_\_\_Native Hawaiian or Pacific Islander  
\_\_\_\_\_White  
\_\_\_\_\_None of the above  
\_\_\_\_\_Other \_\_\_\_\_  
\_\_\_\_\_I prefer not to respond

Do you consider yourself Hispanic or Latino?  
\_\_\_\_\_Hispanic or Latino  
\_\_\_\_\_Not Hispanic or Latino  
\_\_\_\_\_I prefer not to respond

What is your current position? (e.g., Lead teacher, Assistant Teacher, Teacher's Aide, etc.)

\_\_\_\_\_

\_\_\_\_\_Number of years of experience caring for children in an early care and education and/or preschool setting

What is the age group/age range of your current group of children? \_\_\_\_\_

What is your highest level of education?  
\_\_\_\_\_Less than high school degree  
\_\_\_\_\_High school degree  
\_\_\_\_\_Some college courses  
\_\_\_\_\_Child Development Associate's degree

- \_\_\_\_\_ Associate's degree
- \_\_\_\_\_ College degree (BA or BS)
- \_\_\_\_\_ Master's Degree (MA or MS)
- \_\_\_\_\_ Doctoral or other terminal degree (PhD, MD, etc.)

If you answered that you have an AA, BA/BS, MA/MS, or higher, what field is that degree in?  
(For example, BS in Early Childhood Education, Child Development Associate [CDA], BS in Psychology, MA in Education)

\_\_\_\_\_

Please indicate the standards and regulations your center follows:

\_\_\_\_\_ NAEYC

\_\_\_\_\_ Keystone STARS

→ STAR Level: \_\_\_\_\_

\_\_\_\_\_ Head Start

\_\_\_\_\_ DPW

\_\_\_\_\_ Pre K Counts

\_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_ Other: \_\_\_\_\_

\_\_\_\_\_ I do not know

\_\_\_\_\_ I prefer not to respond

## Appendix B Perceived Work Characteristics Survey

### Work demands

*How often do you find yourself meeting the following problems in carrying out your job?*

1. I do not have enough time to carry out my work.
2. I cannot meet all the conflicting demands made on my time at work.
3. I never finish work feeling I have completed everything I should.
4. I am asked to do work without adequate resources to complete it.
5. I cannot follow best practice in the time available.
6. I am required to do basic tasks which prevent me completing more important ones.

Response scale: 1 = not at all, 2 = just a little, 3 = moderate amount, 4 = quite a lot, 5 = a great deal

### Autonomy and control

The following questions concern the amount of choice you have in your job.

*To what extent do you:*

1. Determine the methods and procedures you use in your work?
2. Choose what work you will carry out?
3. Decide when to take a break?
4. Vary how you do your work?
5. Plan your own work?
6. Carry out your work in the way you think best?

Response scale: 1 = not at all, 2 = just a little, 3 = moderate amount, 4 = quite a lot, 5 = a great deal.

### Peer support-Coworkers

The following questions ask about the extent to which other people provide you with help or support. (*For these four items, please think about the coworkers who provide care for children alongside you, in general. You will respond about your director/principal specifically in the following group of items.*)

*To what extent can you:*

1. Count on your colleagues to listen to you when you need to talk about problems at work?
2. Count on your colleagues to back you up at work?
3. Count on your colleagues to help you with a difficult task at work?



4. Really count on your colleagues to help you in a crisis situation at work, even though they would have to go out of their way to do so?

Response scale: 1 = not at all, 2 = to a small extent, 3 = neither great nor small extent, 4 = to a great extent, 5 = completely

Peer support-Director/Principal

The following questions ask about the extent to which other people provide you with help or support. (*For these items, please think about your center director/principal.*)

*To what extent can you:*

1. Count on your *director* to listen to you when you need to talk about problems at work?
2. Count on your *director* to back you up at work?
3. Count on your *director* to help you with a difficult task at work?
4. Really count on your *director* to help you in a crisis situation at work, even though they would have to go out of their way to do so?

Response scale: 1 = not at all, 2 = to a small extent, 3 = neither great nor small extent, 4 = to a great extent, 5 = completely

### **Appendix C Perceived Stress Scale-10 Item**

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

Response options:

\_\_\_0=never \_\_\_1=almost never \_\_\_2=sometimes \_\_\_3=fairly often \_\_\_4=very often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and "stressed"?
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
5. In the last month, how often have you felt that things were going your way?
6. In the last month, how often have you found that you could not cope with all the things that you had to do?
7. In the last month, how often have you been able to control irritations in your life?
8. In the last month, how often have you felt that you were on top of things?
9. In the last month, how often have you been angered because of things that were outside of your control?
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

## Appendix D CES-D

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

Response Options:

Rarely or none of the time (less than 1 day)

Some or a little of the time (1-2 days)

Occasionally or a moderate amount of time (3-4 days)

Most or all of the time (5-7 days)

During the past week:

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not get "going."

## **Appendix E GAD-7**

Over the last 2 weeks, how often have you been bothered by the following problems?

Response options:

0 Not at all

1 Several days

2 More than half the days

3 Nearly every day

1. Feeling nervous, anxious, or on edge
2. Not being able to stop or control worrying
3. Worrying too much about different things
4. Trouble relaxing
5. Being so restless that it is hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

## Appendix F Discrepancy Activity: Instructions

*Please arrange the tasks you entered into the following groups:*

- *Have to dos*
- *Both*
- *Want to dos*

*You can (if you wish) use the Both box for tasks that overlap/fit in both the Have to dos and the Want to dos groups. To move the tasks into the three groups,, click on and drag each task into the box where you feel it belongs. You can continue to move and change the task arrangement until you have everything in its place. The tasks can be moved around as many times ass you wish. While you are moving the tasks around to where you think they fit best,, please talk out loud (and into the phone) with what you're thinking about and feeling while making the task arrangements. Please feel free to say anything that comes to mind while you're arranging the tasks. (Please don't click the Back button, or your arrangement will be lost!!)\**

\*The researcher clarified that the participants could tell the researcher what they were moving around and why, and anything they were thinking while they were doing that. The researcher also provided a warning that the survey system would auto-populate small numbers on each of the tasks at the time they were placed within the boxes, that these numbers were not a part of this research study, and that the participants should disregard them.

## **Appendix G Discrepancy Activity: Follow-Up Questions**

During the semi-structured interview portion of the study, participants were asked (not strictly with exact wording, but in general):

- 1. What were you thinking while you were arranging your tasks?*
- 2. What were you feeling while you were arranging your tasks?*
- 3. Please tell me about how you arranged these tasks, overall, your process/your approach.*
- 4) Do you have any thoughts or feelings you'd like to share about your final arrangement, now that you can look at it holistically?*
- 5) Do you have any thoughts or feelings you'd like to share about any particular task placements, anything that stood out to you?*
- 6. What are your impressions about the task arranging activity itself?*
- 7. Do you have any other comments about this arranging activity or the tasks you arranged during the activity?\**

\*At this time, the researcher let the participants know that this was the last time that they would be audio recorded, and so anything they would like to say to be audio recorded, they should say now. When the participants indicated their completion with the audio recording, they then clicked Next to submit their final arrangement and to move on to the next survey page.

## Appendix H Experience of Discrepancy Items

1) To what degree do the *Have to do* tasks and the *Want to do* tasks compete or conflict with each other? (In other words -- To what degree do the tasks in the *Have to dos box* compete or conflict with the tasks in the *Want to dos box*?)

- 1 = Not at all
- 2 = To a slight degree
- 3 = To a moderate degree
- 4 = To a high degree
- 5 = To a very high degree

2) How much does this impact you? (In other words -- How much does the competing or conflicting of tasks impact you?)

- 1 = Not at all
- 2 = Slightly
- 3 = Moderately
- 4 = Very much
- 5 = Severely

**Appendix I Complete List of *Have to Do* Tasks, as Submitted by Participants (With  
Redactions and Spelling Corrected) (192 Items; N=44)**

Play with Children	We do various age appropriate tasks with the children for example hand washing	Clean and sanitize my classroom
Answer inquiries from parents		Administer medications as needed
Keep room clean and tidy	Reports on child's behavior and social skills	Keep up to date on required hours for myself
plan and execute lessons		
personal hygiene	Physical assessment of child's abilities to walk run jump	Ensure my classroom meets [National organization] standards, [Regulating body] and [Regulating body] requirements
Nap time	Log improvement in task completion	
Toileting		Parent/Teacher conferences
Serving snacks and meals	Direction finding	Write Developmental Assessments
Recording attendance	Help children with bathroom	Program a classroom curriculum weekly
Phone consultation with parents comfort	Help come up with lesson plan ideas	Fill out daily and weekly food sheets for food program purposes
Comfort counseling regarding transitioning issues	Change diapers for children that are not yet potty trained	Change Diapers
Staff consultation regarding difficult issues with parents and/or children	Clean up after snack and lunch	Wash Dishes
	Plan lessons in Math (age 2-5), Phonics (age 2-5), Cooking (age 2-5), Music (age 1-5) and Sensory (age 0-1)	Do Laundry
Congratulation with our administration regarding the curriculum		Feed Bottles
	Track children's progress in each subject through anecdotal notes, quizzes and pictures	Clean Toys
We also take turns presenting at in services		Introduce and help feed solid foods



Clean room	prepare classroom forms-schedules and meal forms	I seek out trainings and professional development opportunities to help improve my skills and knowledge.
Feed Baby Food	hold parent conferences as needed	
document observations of the children	take children to the bathroom	Try to utilize technology in the classroom myself and have students use it regularly.
help with developmental assessments of development	serve breakfast, lunch and snack	
Serve meals and sit with children during meals	art activities	Provide a mixture of both gross and fine motor lessons often.
housekeeping duties; cleaning tables, laundry, dishes	potty	Prepare work sampling portfolios (outside of school time)
fill out meal count forms	naptime	Prepare and refill snack
change their clothes as needed	clean	Photograph children for use in work sampling portfolios
diapering	prepare food	Clean up area
planning and implementing activities	change diapers	Assist with potty when necessary
manage several early intervention therapists	assist children in restrooms	Assist with care of class animals
supervise overall schedule of room	organize	Supervising a [University] student
help in other classrooms	Provide snack	Developmental profiles
naptime	Direct indoor free time play	Create and implement master weekly schedule
meet with director	Change diapers	Teaching [Language] alphabet (sound, name, form)
supervise student workers	Supervise nap time	
write developmental profiles on [#] children twice a year	Provide lunch	
	Read, story time	
	Complete daily recap sheets for parents	
	Assist with meal prep	
	Assist with bathroom/ hand-washing	

Teaching ABC recognition (sound, name, form)	Manage and Supervise nap time	Hold parent teacher conferences on a quarterly basis.
Direct assistants	Take care of any injuries that may occur while at the daycare	change diapers
Remind my director about supplies needed	Make sure all of the kids feel safe	clean up the room
Stay current with all [App name] app chats	Assess timeouts	assist with feeding
Classroom clean up	Classroom clean up	teach numbers and letters
Change diapers	Assist with Rest time	document daily activities
Assess children using [Assessment]	Greet Children	put children to sleep
Assess children using Work Sampling	Diaper changing	Assessment
Clean the toys weekly	Execute lesson plans	Parent Communication
Feed children (who are unable to feed themselves)	Collect student data	Upholding licensing rules and regulations
Maintain charting with standards	Prepare materials	Attendance
Align daily lessons to individual interests and goals as well as state standards	Collaborate with coteacher	Anecdotal notes
Clean the room daily	Monitor after school care	Clean up
Empty ostomy bags - do various little first aid jobs	Create child-led projects to take home	Support children during rest time
Assist teacher with classroom management	Room maintenance: sweeping, washing dishes, caring for plants and fish in the tank	Discuss situations with coteacher and plan
Change Diapers	Set up the classroom for the day	Lead the children in singing during transition times.
Feed children	Care for classroom pets	Fill out a daily "[color] sheet' for each child to be given to the parents at dismissal
	Set up the playground	Lead daily circle time activities for the children
	answer the phone	

Remain in compliance with timelines of special education paperwork	meeting/implementing [State] standards	Lunch Time with preschoolers
Conducting evaluations to determine eligibility for programming	preparing snacks and lunch provided by families	Turn AC off
Write IEPs and hold IEP meeting with family within compliance timelines	cleaning classroom	BUS DUTY
Writing formal evaluation reports following evaluations	child assessments	INPUT DATA IN [SYSTEM]
collect data per students' IEP goals	Various paperwork	FOOD PREP
Communicate with parents	Help with potty training	MAINTAIN CLASSROOM BUDGET
Assisting children with Toileting/Diapering	lesson plans	ATTEND STAFF MEETINGS
Assisting lead teacher with large group time + Transitions	feeding	Attendance on computer, paper, keep count of numbers on paper, meal attendance
Monitoring children play in class/gym/playground	changing diapers	Assist with toilet training
Paperwork (accident reports, etc)	art	redirect children and facilitate activities
changing diapers	Greeting Preschooler parents in the morning	communicate with therapists and parents about the child's progress
opening/closing center	Snack Time	engage children at all times through play and self directed activities
parent/teacher conferences	Take care of Injuries that may arise with toddlers	assess children using various scales..[scale] and [scale]
portfolio collection	Wipe Noses	Plan lesson plans
Following [type] curriculum standards	Sign Parents in, in the morning as well.	
	Relay information to parents about the child's day	
	Take diaper trash bag out	
	Close Windows	
	Plan and implement circle time with preschoolers	

**Appendix J Complete List of *Want to Do* Tasks, as Submitted by Participants (With  
Redactions and Spelling Corrected) (117 Items; N=44)**

Gather Materials for daily activities	Help scaffold children to learn to	Create relationships with staff
Manage Required Paperwork	put sheets on their mats for	Create relationships with children
teaching	naptime	Welcome class, calendar time
Provide care for a group of five	Sit near children to help calm them	Open time for parents at pickup
young toddlers	to get to sleep	Assess the needs of my physical
decorating	Pat children to sleep	setting often.
assisting others with ratio	Attend outside conferences	Provide fun and silliness not JUST
communicating with other staff	Have conversations with the	academics.
Interacting with parents	children	Provide well-rounded lessons -- ie.
Singing songs	Converse with coworkers about	I try to include multiple aspects to
Providing free play with adult	children's different issues and	one lesson (the main idea may be
interaction	brainstorm ways to help	literature or reading, but I include
Holding conversations with	engage in committees outside of	other aspects as well so students
children	the classroom	have more opportunities to
Arts and crafts	read to children	showcase strengths).
We work on safety with children	dramatic play using imagination	Try to make suggestions for
eg recognition of caregivers	create lesson plans	improvement in my overall setting
Safety in parking lot play ground	greet parents/guardians	any time I find something could be
and classroom	Read stories	improved upon.
Help resolve conflicts/scaffold	use of the [App Name] application	Encourage exploration of interests
emotional literacy.	Create relationships with families	as well as areas that students don't
	of children	seem to gravitate toward.
	Small-group instruction	

Have informal conversations with my students to get a better sense of their interests and build rapport.

I try to learn about the different cultures of students in my classroom to make sure they can include their beliefs and such.

Establish and maintain relationships with students, co-workers and parents as well as encourage positive relationships between students.

I try to get students involved in the way the classroom is run so they feel it is their classroom as well (I'm not just a boss there to run the show, they have a say too).

Use a lot of self-talk for myself to sort out my day and aspects of myself.

Establish routines and procedures in the classroom and make sure to observe when they need changed for any reason.

Communicate with families regularly; not only about academic achievement (I like to also make sure I share funny or

nice things their children do throughout the day too).

Curriculum for different ages and abilities within the same classroom

Professional development classes

Self evaluations

Student evaluations

Staff evaluations

Teaching other staff members their job requirements and making sure they are completed in an above average manner

Knowing and working within work philosophy

Parent conferences

Supervising 2 other staff members

Library runs for new, relevant books

Take photos, record conversations

Observations for interest-based curriculum

Integrate [University] research program from their [Lab name]

follow up with [teacher type] teachers for relevant record keeping and curriculum

Assist the children in problem solving

Assist children with STEM play/learning

Create a safe environment that promotes healthy relationships

Create positive learning environments

Play with children - play therapy

Read books

Assist children with reading and learning their alphabet

Lead circle time

Teach [Social-emotional learning curriculum]

Assist children with arts and crafts implement curriculum

Give feedback for child assessments

Assist teachers with curriculum development

Project Prep help

Serve meals

Engage children in activities I planned for them	Initiate teacher lead activities to involve small groups (2, 3 or 4) children to engage in	Greeting parents at pick ups/drop offs
Taking and forwarding photos set up for lunch	Document assessment information about each child in my care	manners (please and thank you)
Prepare daily small group, whole group, art, and play activities	Take care of the children and help them when they get a "boo-boo"	co-teaching with colleague
Print and laminate pictures and words related to current study	Writing weekly lesson plans for the classroom	showing and being creative
communicate with parents at drop off and pick up	Encourage the children to try new activities and skills daily	being flexible to different circumstances
keep anecdotal notes about each child	Be available to the children if they need help	making sure child's needs are met
facilitate play & student activities	Be available to the children if they want to talk	providing a safe environment for children
water the classroom plants	Encourage the children to problem solve as they go through their day	creating lesson plans
Adjust teaching strategies where necessary with group of children and also individual children.	Provide a predictable daily routine for the children	Get books for the toddler Classroom
comfort the children when upset	Engage the children in large group discussions at circle time	Assist children at meal times (3 per day)
resolve conflicts between children	model appropriate play skills	Hold two home visits and two conferences a year
Reflection	facilitate peer play opportunities	Model play for children, scaffold play
Complete the [Assessment] online developmental checklist for each child in my care	Create core word boards and visuals for students	engage children in facilitated play
		Mentor other Lead-Teachers
		I keep animals in our class, birds, fish, and usually also a bunny

**Appendix K Complete List of *Both* Tasks, as Submitted by Participants (With Redactions  
and Spelling Corrected) (319 Items; N=44)**

Develop Lesson Plans for class	Balance testing	Intake meetings with new families
Monitor all behaviors for children's welfare	Color recognition	Waiting list and enrollment
Help children with Toileting	Play with children	Observations and assessments
Help Students get ready to go home	Implement lesson plans	Follow Special Care Plans for individual children
Help Serve Meals	[Religion] Education lessons	Plan trainings for other staff
organizing	Put out snack/lunch	Collaborate with other teachers
feeding	I can be left alone with children as long as I am within ratio	Attend staff meetings
cleaning	Watch children and make sure they are safe	Provide individual children with basic safety needs
Teaching numbers	Clean up room and prepare for the next day after children have left.	Parent relationships/advice and guidance daily
Teaching letters	Implement structure and discipline when appropriate.	Plan activities on the spot as well as in advance
Circle time		
Teaching handwriting	Offer small group and/or one on one help in each subject	Change diapers
We educate the children regarding proper eating skills and table behavior eg eating only food on your and refraining from grabbing others' food	Meet with parents to discuss their child's progress in each subject	General care of Infants and Toddlers
Matching	Send daily emails about children's progress in each subject	Supervise staff and student employees
Family counseling regarding child's progress		Feeding of Children
Life skills feeding dressing toilet training		Fill out daily report on ipad

Take pictures/videos of the children for parents to receive weekly	Support children during rest time and monitor them while they are sleeping/resting.	Provide daily outdoor activities, weather permitting, for example going to walks, playing on the playground or explore the outdoor community around the center.
Rock or pat children to sleep	Sing songs/have group time 2-3 times per day to "teach" and activity or lesson.	Provide developmentally appropriate activities in the areas of: art, music, science, social studies, literacy and language, physical development, math, block play to name a few.
Read Stories	Take photos and documentation in [app name] through the day to document what the children are doing throughout the day for families to view.	Change diapers and help support "potty training" as the children are ready.
Help with fine motor development	Cover staff lunch breaks.	Care for the overall well-being of [#] children 18 months to 3years old Monday-Friday 7.5 hours per day with a 1 hour duty free lunch break.
Help with gross motor development	Check and respond to e-mails from administrators and families daily.	care for children's emotional needs
Sing Songs	Complete assessments on the children three times per year using [Assessment] online system.	care for children's physical needs (diapers, injuries, meals)
Complete Art Projects	Maintain daily/weekly/month lesson plans.	care for children's social well being
Complete documentation for each child's profile daily which in turn supports conferences every six months with family members.	Prepare meals breakfast, lunch and a afternoon snack for the children and staff in the classroom.	provide safe learning environment
Support, teach and train students who work in the classroom daily.		communicate with staff and families
Supervise co-worker in the classroom and support them as needed.		
Greet families and children at arrival and departure while sharing information about the child's morning prior to coming to school and how their day went while they were at school.		



assess and respond to children's developmental needs  
 redirect and guide children  
 play with children to promote learning/development  
 plan lessons  
 implement lesson plans  
 take photos and post on [app]  
 talk with parents daily  
 rotate materials such as toys and books  
 run group time  
 write anecdotal records and input on [system]  
 breakfast set up  
 breakfast clean up  
 circle time  
 calendar and weather  
 water play set up  
 sand play up  
 sing songs  
 reading books  
 lunch set up  
 lead activities  
 manage paperwork

train staff  
 Direct art projects  
 Morning circle  
 Supervise special activities (art, gym, etc.)  
 Supervise outdoor play  
 teach!  
 Sign Kids in and out  
 Bathrooming  
 Whole-group instruction  
 Provide a safe environment  
 Calls to parents  
 Integrate technology in the classroom  
 Writing on Parent White Board  
 Meal time routines  
 Print/Copying  
 Conflict resolution with children  
 Deal with problem behavior  
 Circle time  
 Redirect students  
 Calendar time  
 Music activities  
 Follow curriculum

Planning Lessons  
 Physical education activities  
 Maintaining a clean/organized classroom  
 Class prep - lesson plans  
 Letter and Number work  
 Project based on curriculum  
 Physical activity, playground or gym time  
 Promote health and wellness -- make sure to actually teach the importance of this so students understand how and why to take care of themselves.  
 Nurture mental health by fostering social/emotional skills and self regulation.  
 Make sure to maintain professionalism and make ethical choices.  
 Prepare students for the structure they will be facing once in kindergarten.  
 Encourage parents to become involved in the classroom and their child's progress.

Promote positive self-esteem and try to instill positive outlooks early on (specifically with ones self).	Responsible to be the point person for assigned students/families	Prepping new games and activities before and after school
Use assessments, formal and informal, to try and find weakness that need addressed or strengths that could be explored further.	Participate in circle time either by leading circle time, or by helping to facilitate the children's participation	Meet with Director about planning and troubleshooting
Read with and to the children as well as informational texts for myself.	Teach/Facilitate participation in specific area	Maintain communication between home/school with therapists, nurses, and other staff
Collect multiple pieces of data (standards, old lessons, observations, etc) to develop new lessons that my students will enjoy/learn from.	Assist with musical practice	Collaborate with therapists to achieve IEP goals
Provide academic and behavioral interventions.	Monitor children during outside play	Work with various disability equipment ( IE: chest vests, stander, gate trainer) - to assist children with walking
Bring children into school from drop-off line and take them to their cars in pick up line, Greet Kids	Completing tasks from supervisor	Potty training.
Prepare Lesson Plans and materials prior to coming to school	Age appropriate curriculum	Promote healthy hygiene
Meet with team teachers to plan lessons and discuss how to support students (outside of school time)	Social emotional skill building	Supervise children
Take attendance	Planning the integration of secular and religious studies	mentor teacher
Set up room	responsible for hygiene	Assist director with staff placement
	Religious instruction	Art teacher
	lead circle	Read books
	Manage parental collaboration and communication	Teach them numbers and letters
		Morning classroom set up
		Communicate with parents
		Monitor child welfare

Attend planning meetings	Supervise children and keep them safe.	Cooperate/Team teach with my partner
Escort students outside		
Maintain cleanliness of classroom environment	Maintain state ratios and licensing.	Scaffolding learning
	Keep a tidy classroom.	Accommodating needs
Communicating with parents	Teach Children (as a whole group and also individually based on social emotional/academic and developmental abilities).	Supporting individual learners
Logging in each child's accomplishments, interesting incidents, emerging words and developmental milestones		Adhering to [type of standards]
Physically care for the children: diapering, rocking to sleep, assisting with self-feeding, teaching handwashing	Implement lesson plans that focus on multiple areas of early childhood education (social emotional, large and fine motor skills, early literacy, math, science/social studies, art)	Care and comfort of children
		Education
Lesson plan sensory developmental activities and gross motor activities (several for each day of the week)	Conduct and record monthly observations on individual children.	Conflict Resolution
		Social Emotional Support
Rotate classroom items on a weekly basis	Write lesson plans that align with state standards.	Lesson plan preparation
clean the classroom	Maintain open communication with families.	Assisting children in self regulation
put student library books away & get new books	Write lesson plans	Assist children in self care
change diapers as needed	run circle times	Contact with parents
upkeep [app name] photoshare app	run developmentally appropriate activities	Conduct parent and teacher conferences 4 times a year
Oversee children's portfolios and assessments on a quarterly basis.	play with the children	Engage the children in small group discussions at the snack or lunch table
	Classroom management	Initiate teacher lead activities to involve individual children to engage in
		Give the children "5 minute" warning prior to transition

Help children who are having a difficult time identify their feelings and work through them	Manage my classroom	completing professional development hours for state
Be a listener to the children	Meal Prep for children (Family Style)	providing support for the child and families
Diaper and Potty the children	Cleaning classroom (tables, spills, etc)	completing [type of continuing education requirement] credits
Talk daily with the parents about their child's day	Reading	implementing lesson plans
communicate with paraprofessionals in room plans for the day/week/class etc.	teach them shapes,colors, etc	classroom management
Communicate with other therapists in program such as occupational, speech, and physical therapists	how to play nicely with one another	Using [School district] curriculum, teach preschoolers various concepts
Consult with outside therapists and wrap around agencies	stock the classroom with what it needs	Teach math
prepare lesson activities	the right and wrong way of how to do something	Take certifications classes
Communicate with school districts when students transition	showing them how to clean up	Teach literature
Communicate with families	clean the room	Mandated reporter
Write lesson plans based on student goals and standards	art with the children	Follow rules
Create daily lesson plans	watch the children	Help co workers keep children safe
Interact with coworkers	make sure the children are having fun	Prepare classroom for evaluators
	help them learn there body parts	Help co workers with issues
	help them get to sleep	Participate in meetings with co-workers
	show them how toys work	Evaluate other classrooms to make sure they are compliant with [Assessment]
	behavioral management	
	parent/family daily communications	

Teach science	Play with Toddlers- provide enriching experiences	WORK WITH ANCILLARY STAFF TO PROVIDE PROGRAMMING FOR CHILDREN RECEIVING SPECIAL SERVICES
Integrate children with special needs into the classroom	Clean Toys	MONTHLY NEWSLETTER
Teach art	Travel to outside play area in [type of child transport]	WEEKLY TEAMING MEETINGS
Teach physical education	Sign Parents Out	SCHOOL IMPROVEMENT TEAM COMMITTEE MEMBER
Communicate with the director	Art Projects	INDIVIDUALIZE LEARNING
Communicate with parents	LESSON PLANNING-WEEKLY	FOLLOW IEP OBJECTIVES
Help parents find resources for children with special needs	CONSTANT COMMUNICATION WITH FAMILIES-EMAIL, F2F ETC	MENTORING NEW PK TEACHERS IN THE BUILDING
Prepare lessons	PARENT CONFERENCES	[LANGUAGE] TRANSLATION
getting out different play toys	MAINTAIN ACCURATE ACADEMIC RECORDS	TRAINING/MENTOR PARAPRO
reading	HOME VISITS	MENTORING STUDENT TEACHERS
rubbing backs for nap	LAUNDRY	Plan and implement the [Curriculum]
talk to parents	MAINTAIN CLEANLINESS OF ROOM	Assess children using [Observation system]
Plan Centers and stations around theme in the classroom	PARENT EDUCATION	Implement small group and large group
Change Diapers	ABIDE/LEARN LICENSING GUIDELINES	
Play and observe them to help them learn correct ways to interact with their peers	CHILD ASSESSMENTS	
Engage in Conflict Resolution		
Crafts with preschoolers		

clean and sanitize our room and toys to ensure reduction of germs

take care of daily needs

Tend to children's physical needs

Tend to children's Emotional needs

Communicate children's developmental progress to parents

I also help clean the class

I train assistants

Rotate materials

Create themes in an integrated curriculum

I report to the admin,

Participate in lead teacher meetings

Prepare and offer daily group time: finger plays, stories, musical instruments, songs, poems and nursery rhymes, and movement to music or songs, with streamers scarves or "skates" (pieces of felt to skate on the floor to a song or music).

Take daily notes about the children, what activities they chose or tried, how they performed, if they liked it, wanted to repeat it, what kind of focus and for how long. Truthfully, I am very happy if i can write about three things about the children from the morning. We are very busy showing how to do things, conflict resolution, preparing snack with the children's, helping with toileting as needed, help them understand boundaries, and in the beginning of the year we usually spend a significant period helping the children adjust to the school environment. Sometimes I say, in the beginning, learning to separate well from the parents, and be comforted and find nurturing support from us, is the curriculum. But after a few weeks that shifts, to more interaction with the environment and peers.

Support children's social development

Write evaluations on each child 2x per year. Communicate any developmental/behavior concerns as needed throughout the year. However usually parents are already aware, and best practices support bridging the gap.

Educate parents on the [Type of educational philosophy] philosophy, how to create a home environment that will support the child's development of functional independence, How to "discipline" in positive ways.

Write a monthly newsletter about what we're doing in class.

Prepare the environment, create beauty, choose and create activities that will engage the children. We look to develop as a baseline: 1. order 2. coordination 3. concentration 4. independence.

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