PERSONALITY FACTORS AND THEIR INFLUENCE ON AUTISM SPECTRUM

THERAPIST BURNOUT AND JOB SATISFACTION

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ABSTRACT

PERSONALITY FACTORS AND THEIR INFLUENCE ON AUTISM SPECTRUM
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Therapists working one-on-one with children with autism experience high levels of job-related stress and occupational "burnout," as well as lower levels of job satisfaction which results in higher than average job turnover. This is particularly unfortunate, in that these vulnerable clients need stability and consistency in care, both of which are empirically related to clinical outcomes. It is reasonable to assume that some people, by virtue of their individual characteristics, are better suited to this type of work than are other people. The purpose of the present research study was to investigate associations between normal personality traits, using the five-factor model of personality, and key job-related variables, including burnout and job satisfaction in a sample of therapists who work one on one with individuals diagnosed with autism. Significant positive or negative correlations were found between the personality factor of Neuroticism and all three subscales of burnout (Exhaustion, Cynicism, and Professional Efficacy). In addition, two other personality traits, Extraversion and Conscientiousness, were significantly negatively correlated with Cynicism and positively correlated with Professional Efficacy. Finally, the Agreeableness personality factor was positively associated with Professional Efficacy. A significant positive correlation was found between job satisfaction and

Extraversion, and a negative correlation was found between job satisfaction and Neuroticism.   By finding correlations between personality traits, subscales of burnout, and job satisfaction, we provide evidence of factors that may identify therapists who are at-risk for burnout prior to being hired. In addition, by identifying currently employed therapists who exhibit these risk factors, interventions can be applied to lower these scores and alleviate worker distress, ultimately positively influencing therapist job satisfaction and quality of work provided.

CHAPTER 1

INTRODUCTION

Autism Spectrum Disorder (ASD) diagnoses, can be seen throughout history. Yet, the rate of growth in the nation's average in diagnoses of ASDs increased at an astounding rate of 57% between the years of 2002 and 2006 to about one in every 110 children. Among these cases, there is an extreme difference in prevalence rates between boys and girls as boys are four times more likely to receive a diagnosis (Centers for Disease Control and Prevention [CDC], 2010). Because of the increasing prevalence rates of autism spectrum disorders, there is a heightened demand for therapy and accommodations in a variety of settings, including educational and clinical (Odom, Boyd, & Hall, 2009).

There has been substantial literature supporting the importance of therapy and its positive effects on diminishing ASD symptoms and successfully mainstreaming these children. Moreover, the current most empirically supported form of therapy is based on Applied Behavior Analysis (ABA), or behavior modification, with greater progress possible if early intensive behavioral intervention (EIBI) is implemented immediately after diagnosis (Lovaas, 1987). In a study conducted by Lovaas, 47% of individuals receiving this particular treatment reached normal and developmental functioning ranges based on their age. These outcomes are outstanding, yet there are still individuals who do not reach this capacity, with difficulties in a number of facets ranging from the individual's inability to generalize treatment experiences to the natural environment and maintenance of previously acquired skills. Additionally, a study conducted with twenty-

nine children previously diagnosed with autism by Ben-Itzchak and Zachor (2006), early intensive behavior interventions were implemented, with one on one therapy for at least 35 hours a week. Parents were also educated as to what current goals were and how to implement behavioral methods in the home outside of one on one therapy hours. Results showed improvement in both cognitive functioning and social interactions showing the dramatic impacts EIBIs can provide (Ben-Itzchak & Zachor, 2006). These studies reiterate the importance of further research and empirical validation for treatment techniques and programs.

In regards to conducting this popular form of treatment, there are many difficulties that arise, most importantly finding dutiful and reliable therapists to maintain effective teams to administer treatment. Typically, these therapy teams consist of multiple therapists who work with the individual. These therapists usually provide therapy in-home, one on one, up to forty hours a week (Grindle, Kovshoff, Hastings, & Remington, 2009). In addition to the strain on families with individuals with autism, there are problems that arise when trying to construct and maintain these treatment teams, especially because they are in such high demand. In a parental interview of fifty-three parents conducted by Grindle et al. (2009), parents reported difficulties in recruiting therapists, therapist reliability and turnover, difficulties finding good therapist matches for their child, and privacy invasion. This shows the need for further research regarding therapists since the quality of therapy relies heavily on the providers: the therapists.

Burnout

Research has shown that there is an increased risk of therapist burnout amongst those who work with individuals with intellectual difficulties and individuals who exhibit

problem behaviors. These complications affect therapist attitude and well-being, directly

impacting therapist reliability and turnover rates. Maslach, the pioneer of today's

concept of worker burnout, describes a worker's burnout with three core concepts:

emotional exhaustion, depersonalization, and reduced personal accomplishment

(Maslach, 1993). These three concepts are impacted by numerous variables, including

supervisor support, work demands, individual patience, and self-efficacy. Reports from

mothers and ABA therapists on work-related well-being supported these findings

(Gibson, Grey, & Hastings, 2008). Job burnout and satisfaction are intricately

interwoven with job performance. Furthermore, job performance affects the quality of

behavior intervention treatment for individuals on the Autism spectrum.

<u>Personality Traits</u>

There have been many studies showing the impact of individual personality

characteristics on potential job burnout (Bakker, Van Der Zee, Lewig, & Dollard, 2006).

There has been a multitude of research studies conducted to relate the five-factor model

of personality traits with worker burnout. There have been findings positively and

negatively correlating Extraversion, Agreeableness, Conscientiousness, Neuroticism, and

Openness with the previously mentioned concepts of Maslach's burnout theory and their

interactions with one another. In a study conducted by Bakker et al. (2006) involving

eighty Dutch volunteer counselors using the Maslach Burnout Inventory – Human

Services, they reported negative correlations between Extraversion and scores on two of

the three concepts of burnout, specifically Depersonalization and Personal

Accomplishment.

The purpose of this study is to investigate personality traits that may be related to job burnout, and job satisfaction in ABA therapists, and also to research ways to help potential therapists identify if they may be at-risk for burnout. Identifying therapists at risk for burnout prior to hire would not only ensure compliance with therapist guidelines provided by a company or private family but would also help parents identify compatible personality traits for their child, their family and other members of the currently existing therapy treatment team. This optimally would help develop more stable and efficient therapy teams who would provide higher quality care.

CHAPTER 2

REVIEW OF THE LITERATURE

In this section, the existing literature will be reviewed on topics related to concepts in this research study. There is a brief description of autism and a more in-depth description of what ABA entails. I will discuss variables that affect ABA treatment teams and the factors that may interfere with successful treatment.

What is Autism?

Autism is a neurologically based condition which manifests itself in "markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity or interests" (American Psychiatric Association [APA], 2000, p. 70). Autism is considered a spectrum disorder, meaning impairments are gauged along a continuum ranging from mild to moderate to severe, in regards to their "developmental level and chronological age" (APA, 2000, p. 70) for social interactions, communications, motor skills, and intellectual ability that may widely vary from one individual to another. Typically showing signs before the age of three, these impairments may be visible in the form of difficulty with eye contact, turn-taking, social awareness in regards to taking others' perspectives, and understanding and expressing emotions appropriately (Beaumont & Sofronoff, 2008; Centers for Disease Control and Prevention {CDC}, 2009). Behaviors include perseverative, stereotyped behaviors that can be non-injurious such as flapping body parts, tongue clicking, or repetitive play with certain objects, or injurious, such as head banging and skin-picking (APA, 2000, p. 70-73). Currently, autism is diagnosed at a rate of one in every 110 children, with a four to one

ratio of boys to girls (CDC, 2009). According to the American Psychiatric Association (2000, p. 71), there is often times a co-existing diagnosis of Mental Retardation, denoted by an IQ score ranging between seventy and thirty, which is titled "mild to profound" intellectual functioning, respectively, which has been shown to correlate with a heightened presence of self-injurious behavior, restrictive behavior, greater difficulty interacting in peer relationships and odd emotional affect (Mayes & Calhoun, 2010; Murphy, Healy, & Leader, 2009). Although there is no specific cause known for autism or its increased prevalence rate, it is speculated that a contributing factor may be heightened social awareness, genetic contributions, and potentially dangerous in-utero exposures (CDC, 2009).

Treatment for Autism

Because of the increasing prevalence of ASD diagnoses, there are increasing demands from a variety of settings in which individuals can receive therapy services and accommodating education curriculums. Educational systems within the United States are required to make available and provide autism services to individuals who are eligible within these systems (Callahan, Shukla-Mehta, Magee, & Wie, 2010). As Yell, Drasgow, and Lowrey (2005) cited in their review of the "No Child Left Behind Act," this policy dictates that all forms of therapy that are in use by public educational systems need be scientifically proven. These forms of therapy need to yield positive and beneficial results for individuals on the spectrum for ethical purposes. Commonly, behavioral interventions are paired with biomedical and diet therapies to compensate for other deficits that are often co-morbid with individuals who have a spectrum disorder.

Early identification and therapy are crucial to boosting beneficial outcomes with these individuals. In a study conducted by Howlin, Magiati, and Charman (2009), they explored the effects of early intervention on children with autism. Even though it is speculated that original IQ, before intervention, may be a large factor in progress capacity, they still found significant improvements post-intervention, measured by IQ increase. Interventions usually encompass a variety of different developmental, educational, and behavioral components (Weiss, 1999). There is a wide variety of comprehensive treatment models that may be offered. Particularly, Applied behavioral analysis (ABA) and Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) are the most widely known and implemented within these mandated educational systems (Gresham, Beebe-Frankenberger, & MacMillan, 1999). Applied Behavior Analysis, one of the most widely practiced forms of intervention which includes methodologies such as prompting, reinforcement, discrete trial teaching, and so forth, has shown to positively impact an individual's overall intellectual capabilities, adaptive behaviors, and most significantly, overall communication skills, with medium to large effect sizes over an extended period of time (Virués-Ortega, 2010). The studies focused on the use of ABA interventions have provided a plethora of evidence for positive results in relieving many impairments of autism (Steege, Mace, Perry, & Longnecker, 2007). The second intervention type, TEACCH, is focused on a breadth of deficits based on the core symptoms of autism and their developmental components. This intervention focuses on the individual's innate strengths and weakness and builds on these while paying attention to visual variables to help the individual make sense of their environment while making expectations clear.

Although these two types of behavioral approaches seem extremely different, they share

a number of components, primarily, they both are developed on learning theory (Skinner,

1953). In Callahan et. al's study (2010), they identified "socially valid" forms of

intervention, focusing on ABA and TEACCH and identified a number of inherently

shared components of ABA and TEACCH. "Socially valid" was defined as "consumer

satisfaction with the goals, procedures, and outcomes of programs and interventions"

(Callahan et. al, 2010, p. 75; Alberto and Troutman, 2008) and included "individualized

programming, data collection, the use of empirically demonstrated strategies, active

collaboration, and a focus on long-term outcomes" (Callahan et. al, 2010, p. 76). For

example, both treatment modalities include continuous monitoring, evaluation, and

assessment of interventions, use of materials and types of interventions that aid in

successful generalizability, and incorporating an individual's preferences and interests

into curriculum and/or intervention. Although Callahan et. al's study did find that

typically special educators and other autism service providers prefer a combination of

interventions and not necessarily strict ABA, TEACCH or other program, for the purpose

of this study, I will be primarily focusing on interventions based on the theory of Applied

Behavior Analysis (Callahan et. al, 2010).

Steege et. al (2007) have discussed the five main goals of ABA: 1. To teach new

skills, which include social-communicational skills and life skills; 2. Prevention of loss of

previously acquired skills; 3. To teach generalization of skills to other natural

environments; 4. To restrict the ability of maladaptive behaviors and those that may

interfere with the natural learning process; and 5. To identify those maladaptive

behaviors and replace them with adaptive behaviors (Steege et. al., 2007). Optimally,

those receiving and providing ABA therapy are in a very intensive program incorporating up to forty therapy hours per week in which the therapist produces up to 50-100 learning opportunities per hour, however, optimal treatment plans differ from individual to individual. Other characteristics of ABA interventions that are beneficial include the following: early intensive intervention, one on one instruction, instructional objectives addressing core deficits, emphasizing and allowing maximum generalizability of acquired skills into the natural environment (National Research Council, 2001). Exposure to typically developing peers is extremely important because typically developing peers can provide a type of modeling which can be constructive, based on learning theory. There is also an emphasis on the importance of the parents knowing these intervention methods and their child's program specifics, current goals, so they can be applied outside of formal therapy hours, consequently maximizing the intervention. It is agreed that intervention should take place as soon as possible, optimally right after a diagnosis has been made. Early Intensive Behavioral Intervention, EIBI, is targeted to children as young as three years old and should include approximately 40 hours of one on one therapy per week for at least two years (Howlin et al., 2009). Over the life course of an individual's therapy, there is need for constant monitoring, reassessment of goals, skills attempted to acquire, and modifying teaching approaches and methods (Steege et al., 2007).

In a previous study by Eikeseth, Smith, Jahr, and Eldevik (2002), there were shown to be positive effects on overall autism symptoms, including cognitive performance, language enhancement, and adaptive behaviors replacing maladaptive behaviors in response to applied behavioral therapy. These positive effects ultimately

help the child maintain peer relationships, acquire new skills, and adjust to new environments. Lovaas, the first pioneer in autism intervention using Applied Behavioral Analysis, conducted a study demonstrating the importance of ABA-based therapy (Lovaas, 1987). Lovaas used thirty-eight preschool participants, whom were already diagnosed with autism, and randomly selected them for an intensive-treatment experimental group who received forty or more one-on-one therapy hours per week or a control group who received less than ten hours. The results were astonishing with the 47% of children in the intensive-treatment group being mainstreamed into school and attaining "normal intellectual and educational functioning (p.3)." It was reported that some participants gained up to thirty points on their IQ scores, which means someone denoted as intellectually handicapped could progress into the Average range determined by an average IQ score on the WISC-R (Lovaas, 1987). Although this study has not been capable of being replicated, this original study did provide evidence of methodologies that are currently incorporated into ABA and other treatment programs that demonstrate progression in a variety of deficit areas.

ABA therapy aids in identifying forms of reinforcement for problem behaviors that may inhibit learning opportunities, specifically social-positive reinforcement, social-negative reinforcement, and automatic reinforcement (Love et al., 2009). In a study by Love et al. (2009), thirty-two outpatient cases, they intended to find out the reinforcements behind the presence of problem behaviors in children with an ASD. These participants included individuals with a diagnosis of autism, Asperger's Disorder or Pervasive Developmental Disorder Not Otherwise Specified with the latter two diagnoses believed to share the same capacity for demonstration of problem behaviors.

There were thirty-two individuals from the ages of two to twelve and the type of reinforcement was decided upon by both a doctoral-level licensed clinical psychologist and a doctoral-level Board Certified Behavior Analyst, the latter being an expert in identification and providing interpretations of behaviors. The behaviors were named one of five types: 1. Attention/tangible, in which the individual was looking for access to a tangible item or verbal/physical attention, 2. Escape, simply being the escape from an unwanted situation/demand, 3. Automatic reinforcement, those actions that did not include any type of social reinforcement and were simply paired with a want of the individual, 4. Activity restoration, an attempt to avoid a demand and resume an enjoyable activity that was interrupted by the demand, and 5. Undifferentiated, when behaviors did not fall into any other category. They found that problem behaviors were most commonly associated with the attention/tangible type at an alarming rate of 88%. Love et al. hypothesized that the high prevalence of problem behaviors being maintained by attention/tangible reinforcement may be due to these children not being taught, not being able to acquire, and/or not engaging in environments where appropriate social reinforcement is available (Love et al., 2009). It is imperative that ABA interventions emphasize, teach, and develop adaptive maintenance mechanisms for socially appropriate skills and not reinforce socially inappropriate behaviors. As mentioned earlier, emphasizing exposure to typically developing peers can provide environments in which socially appropriate reinforcement is available.

Within ABA, there have been many technologies emerge such as task analysis, chaining, prompting, fading, thinning, generalizing, shaping, and modeling. All methods can be used by matching techniques to the individual's overall capacity, weaknesses, and

strengths, to maximize their academic, cognitive, social, and life skills (Steege et al., 2007; Sheinkopf & Siegel, 1998). When designing intervention programs for individuals based on these technologies, there is another extremely valuable methodology of teaching. This is coined Discrete Trial Training (DTT) and is one of the oldest teaching methods within ABA. This is the most commonly used form of teaching during "table time" where the therapist/teacher sits down at a table with the individual and formally teaches skills, imitating an educational setting. Steege et al. describes the four components on which DTT focuses: 1. presentation of a stimulus, 2. occurrence of the targeted response, 3. reinforcement delivery, and 4. An "intertrial interval" which is followed by an attempt for an independent response (Steege et al., 2007). From previous experience, I will lend an example to demonstrate these four components. The therapist and a child are sitting across from one another at a table. The therapist is currently teaching the child to discriminate a picture of a boy brushing a dog among a group of similar pictures, such as a boy drinking a glass of water, a boy eating, a boy swinging, and so forth. The therapist lays out the cards and says, "Show me the boy brushing the dog." The therapist prompts the correct response by pointing at the correct picture, which is followed by the child also pointing to the picture. The child is given a reinforcer such as candy, food, and so forth. A few seconds passes and the therapist presents the stimulus again, "Show me the boy brushing the dog." The boy should now point, independently to the correct picture. Within DTT, the prompting slowly fades as the individual makes progress. In the example above, the therapist may have initially begun by physically, hand-over-hand, prompting the child to point to the correct picture and has now faded to slightly gesturing to the correct response.

The quality and success of these interventions is heavily reliant upon the performance and attitudes of those providing it, the therapists (Gibson et al., 2009). There is literature available in which parents have reported hopeless attitudes constructing and maintaining treatment teams especially since it is primarily their main responsibility to find therapists. These negative attitudes stem from difficulties in therapist unreliability, high therapist turnover, and difficulty in finding optimal therapist matches for child and family (Grindle et al., 2008). Obviously the demands for this job can be demanding with the intensive one on one, 40 hours per week treatment which produces the most effective and lasting results. In addition to work demands, there are effects on therapists in relation to the learning progress of the client due to possible cognitive impairments, behavioral problems and organizing the teaching environment in the most efficient way for easier generalizability of skills learned to the natural environment (Jennett et al., 2003). These factors affect the therapists' feelings of self-efficacy, stress, and ultimately well-being, all core concepts of burnout theory.

Therapist Burnout

In the field of human services, there is literature available describing the idea of worker "burnout." Burnout is known as a psychological syndrome from occupational stress that has physical and emotional manifestations from feelings of overextension occurring in individuals who provide (Jennett, Harris, & Mesibov, 2003). Burnout is defined on 3 subscales: Emotional Exhaustion measuring feelings of being emotionally exhausted and overextended in one's work, typically referred to as the primary manifesting characteristic; Depersonalization which refers to negative attitudes and feelings toward ones' work and Personal Accomplishment measuring the satisfaction one

has with their accomplishments within their working role (Maslach, 1993). Burnout is referred to as an "endpoint" of unsuccessful coping, feelings of overextension, inactive problem solving, supervisory appraisal and other pro-active coping skills that may help mediate occupational stress prior to burnout (Jennett et. al, 2003, p. 583; Cherniss, 1985). There is literature providing that there are substantially higher amounts of burnout in human services, particularly in those who work with individuals with intellectual disabilities (Skirrow & Hatton, 2007). Male and May (1998) reported findings that educators who work with individuals with severe learning difficulties report large workloads and long hours. There are also numerous studies that found that staff who work with individuals with challenging behaviors associate increasingly negative attitudes of the client in correlation with the severity of the problem behaviors and these negative attitudes can elicit feelings of Emotional Exhaustion and Depersonalization (Chung & Harding, 2009; Mitchell & Hastings, 2001; Rose, Horne, Rose, & Hastings, 2004).

Maslach, the pioneer of interest and theory behind burnout, developed a burnout inventory in 1981 based on the three components of Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Over the decades, the Maslach Burnout Inventory (MBI) has been one of the leaders in identifying burnout among workers and preventing burnout by developing intervention plans within the work place. Yet, because of the increase in awareness of the psychological phenomenon of burnout and the importance of preventing it for the well-being of workers, there has been emphasis on the need for more specific inventories. After a second revision, Maslach and her colleagues updated their burnout inventory, yet again, producing a third version, and

they also created three targeted inventories including the MBI for Human Service

Professionals, the MBI for Educators, and the MBI for the use of General Professions

(Kitaoka-Higashiguchi, Nakagawa, Morikawa, Ishizaki, Miura, & Naruse, 2004;

Schaufeli, Leiter, Maslach, & Jackson, 1996).   There has been substantial literature that

provides evidence for the basis of these three core concepts on which the original MBI is

founded, across cultures, and in a variety of settings which employ Human Service

Professionals and Educators. These concepts are intended to focus on the workers

detachment from the emotional demands they endured by the relationships with their

clients or subjects. However, the MBI General Survey replaced these three concepts with

Exhaustion, Cynicism, and Professional Efficacy (Kitaoka-Higashiguchi et al., 2004;

Schaufeli et al., 1996). Because the General Survey was intended for the use by

individuals in general professions, it is intended to focus on the relationship between the

worker and their thoughts about their work differing from the Human Services and

Educator's Surveys which focus on the relationships between the worker and their

relationships with their clients (Schaufeli et al., 1996).

It was reported that there was skepticism about the construct validity between the

three original components of Emotional Exhaustion, Depersonalization, and Personal

Accomplishment, as Exhaustion and Depersonalization were suspected of high

correlation (Kitaoka-Higashiguchi et al., 2004). I will briefly describe a study conducted

by Hastings, Horne, and Mitchell (2004) who conducted a factor analytic study of the

Maslach Burnout Inventory using the Human Service Professionals version with staff

working in community services with individuals with intellectual disabilities; individuals

with intellectual disabilities share similar characteristics with those individuals with an

ASD. In the Hastings et al. study, they found 184 participants, 115 female and 69 male, who were currently working with individuals with intellectual disabilities. All participants completed the twenty-two item, Likert-type scale Maslach Burnout Inventory for Human Services Professionals. After the proposed analyses had been conducted, Hastings et al. confirmed that there were in fact three factors: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Hastings concluded that the MBI Human Services Survey is a reliable and valid tool for assessing burnout among Human Service Professionals in all settings alike.

Because there are similar items that have been extracted from the subscales of the Human Services Inventory and previous skepticism about the original subscales correlations, there was need for identifying the items and subscales of the General Survey as also valid and reliable (Taris, Shreurs, & Schaufeli, 1999). Preliminary discussions about the similarities and differences between the three subscales of the original inventory and the new General Survey were made by Taris et al., (1999) before conducting psychometric tests. Taris et al. identified many questions as being directly extracted from the Human Services Inventory, in addition to some being reworded and some items being newly constructed. Because the General Survey is targeted to explore the relationship with workers and the work itself, many of the items composing the scales are more generic and are related directly to the form of work, ignoring external factors, such as social accomplishments and relationships with clients (Taris et al., 1999).   These research studies have provided evidence that these three factors are independent, valid, and reliable in the Dutch and English versions, with correlations ranging from .22-.52 and Chronbach alpha reliabilities from .69-.87 (Taris et al., 1999; Leiter & Harview, 1996).

Again in another study conducted by Kitaoka-Higashiguchi et al. (2004), there was intent to explore the construct validity between the three components of the General Survey and findings also demonstrated a valid and reliable form for testing burnout among Japanese workers in all professions (Kitaoka-Higashiguchi et al., 2004). These studies show that measures of burnout can predict individual's job satisfaction which is related to job performance (Hakanen, Bakker, & Shaufeli, 2006).

Personality Traits and Burnout

Maslach established that in addition to age, marital status, and gender, personality traits influence burnout. Burnout is the result of a process in which an individual loses the ability to cope, resulting in Exhaustion and attitudinal/behavioral change (Maslach & Jackson, 1981). There is research available that shows high correlations with certain personality factors, or domains, and facets that may be useful in predicting burnout.

As a premise to relate personality traits with burnout, I will briefly discuss the five-factor model of personality. These traits are shared and interpreted globally as Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness (Goldberg, 1990). Each factor contains six facets of each dimension which will also be included in a brief description of each broad factor. Extraversion, or Surgency, refers to an individuals' degree of need for interpersonal satisfaction and activity level, including facets such as friendliness, gregariousness, excitement-seeking, cheerfulness, and assertiveness. Agreeableness measures an individuals' capacity of balance of their interpersonal orientations, which includes characteristic facets of morality, trust, sympathy, cooperation, modesty and altruism. Conscientiousness, or Dependability, assesses the degree to which an individual engages in goal-oriented behavior. Facets

regarding Conscientiousness include self-efficacy, orderliness, achievement-striving, cautiousness, self-discipline, and dutifulness. Neuroticism, or Emotional Stability, refers to one's ability to balance adjustment and instability. An imbalance results in facet characteristic of self-consciousness, impulsiveness, anger, anxiety, impulsiveness, and depression. Lastly, Openness, or Intellect, reflects an individuals' capacity for appreciation of experience and includes facet characteristic of artistic interests, intellect, liberalism, imagination, adventurousness, and emotionality (Goldberg, 1990). As Costa and McCrae noted, these five universal personality factors and their underlying facets are known to have effects on subjective individuals' overall well-being (Costa and McCrae, 1992). These personality factors are commonly measured by varying forms of Goldberg's IPIP-NEO, which has good content validity and reliability (Goldberg, 1990).

From a study conducted by Chung and Harding (2009), they concluded "Personality traits can affect the degree of burnout and poor psychological well-being that staff may experience" (Chung & Harding, 2009, p. 549). Remembering the three core concepts of burnout are Emotional Exhaustion, Depersonalization, and Personal Accomplishment, there have been correlations found between specific personality traits and their influence on specific core concepts of burnout. In the study by Chung and Harding, they found that Neuroticism positively correlated with Emotional Exhaustion and negatively correlated with Personal Accomplishment. In addition, Extraversion positively correlated with Personal Accomplishment and negatively with Emotional Exhaustion, and Conscientiousness positively correlated with Depersonalization. In a study conducted by Bakker et al. (2006) using the Maslach Burnout Inventory-Human Services, they found several correlations between factors and facets of the Five-Factor

Personality model and burnout. For example, Emotional Exhaustion was predicted by emotionality (or emotional stability), Depersonalization was predicted by emotionality and intellect/autonomy, and lastly, Personal Accomplishment was predicted by Extraversion and emotional stability" (Bakker et al., 2006). Here we see direct correlations with the three scales of Burnout related to elevated/depressed personality factors. In a study conducted with nurses who worked with individuals with intellectual disabilities, there were findings that higher levels of Extraversion and Openness meant higher levels of Personal Accomplishment. Higher levels of Extraversion, Agreeableness, and Openness lent to higher levels of Depersonalization and most importantly, high levels of Neuroticism promoted higher levels of Emotional Exhaustion and Depersonalization (Vallerand, Paquet, Phillippe, & Charest, 2010). The consistencies between findings of elevated personality traits and elevated concepts of burnout on the Human Services Inventory show that this is a very important relationship and because the General Survey is similar to the Human Services Inventory, one would expect to find similar conclusions. In a study conducted by Kim, Shin, and Umbreit (2007) using the Maslach Burnout Inventory – General Survey, there were findings of Extraversion negatively correlating with Exhaustion. Other findings in Kim et al.'s study included Agreeableness correlating negatively with Cynicism, Conscientiousness and Agreeableness correlating positively with Professional Efficacy, and lastly, Neuroticism correlating positively with Exhaustion and Cynicism. There seems to be consistently negative correlations of Extraversion and all subscales of the Maslach Burnout Inventories.

Personality Traits and Job Satisfaction

Job satisfaction is commonly known as an individual's overall negative or positive conceptualizations about their work (Weiss, 2002). In an attempt to define job satisfaction among teachers for a study, Skaalvik and Skaalvik (2010) pointed out the subjectivity in what satisfies individuals with regards to their work. Skaalvik and Skaalvik pointed out that different qualities and conditions may be more or less important to different teachers, which is likely true in other professional fields (Skaalvik and Skaalvik, 2008). There are many factors that affect individuals' satisfaction with their jobs, such as pay, benefits, chances for promotion, environment, how interesting is it, and supervisor support. An individual's overall job satisfaction is an important indicator for an individual's job performance, which can be objectively measured by one's behaviors (Whitman, Rooy, & Viswesvaran, 2010; Organ, 1988). These behaviors can include organizational citizenship, reliability, and tardiness (Whitman et al., 2010). Job satisfaction and performance are thought to be a causal relationship in which satisfaction precludes performance or vice versa. It is, in actuality, that these subjective affects are fueled by personality traits. The relationship between job satisfaction and job performance will be touched on later.

In a study conducted by Connolly and Viswesvaran, (2000) they found different elevations of personality characteristics were foundational for subjective job satisfaction. Higher scores of Neuroticism, which usually relate to negative emotionality, were shown to decrease job satisfaction. The factor Openness was shown to have no connection. Agreeableness, which tends to correlate highly with overall life satisfaction, was shown to exhibit a low positive correlation with job satisfaction (Connolly & Viswesvaran,

2000). Higher scores in Extraversion, as well as in Conscientiousness, were associated with higher levels of job satisfaction (Connolly & Viswesvaran, 2000; Deneve & Cooper, 1998).

Personality Traits, Job Satisfaction and Job Performance

As briefly mentioned above, an individual's job satisfaction can influence their overall job performance (Whitman et al., 2010). An important aspect of job performance is how one can measure their performance through behaviors, known as "citizenship behaviors" (Organ, 1988). These behaviors are typically discussed in two separate categories, those behaviors that directly influence others, and those behaviors that influence the overall organization (Ilies, Fulmer, Spitzmuller, & Johnson, 2009). Behaviors that directly impact others and demonstrate individuals' level of overall job satisfaction are aspects that reflect helping, courtesy, altruism, and cooperative behavior (Ilies et al., 2009). Again, many of these behaviors are inherently captured in people's personality traits such as Extraversion and Agreeableness which exposes a connection between these personality traits and job satisfaction.

Statement of the Problem

The current study examined personality traits among therapists who may be at-risk for burnout. Detecting those who may be at risk for burnout prior to hire on intervention teams may help establish more stable and reliable teams of therapists by educating therapists on identifying burnout symptoms and alternative coping mechanisms. More stable and reliable teams of therapists should lend to better quality and success of intervention treatments for children with autism because of heightened levels of job satisfaction. This could maximize acquisition of cognitive and behavioral

skills among the ASD population. Maximizing these skills at an early age is critical for

hopeful, eventual mainstreaming of these individuals. This study could help identify

when intervention measures may be helpful to reduce therapist burnout.

Hypotheses

The following hypotheses were proposed based on findings from previous

research in the field of personality factors and concepts of burnout.

1. Scores on Extraversion should negatively correlate with the Exhaustion and Cynicism dimensions of burnout and they should positively correlate with the Professional Efficacy dimension of burnout and overall job satisfaction.

2. Agreeableness scores should negatively correlate with the Exhaustion and Cynicism dimensions of burnout and they should positively correlate with the Professional Efficacy dimension of burnout and overall job satisfaction.

3. Conscientiousness scores should negatively correlate with the Exhaustion and Cynicism dimensions of burnout and they should positively correlate with the Professional Efficacy dimension of burnout and overall job satisfaction.

4. Neuroticism scores should positively correlate with the Exhaustion and Cynicism dimensions of burnout and they should negatively correlate with the Professional Efficacy dimension of burnout and overall job satisfaction..

5. Burnout scores should negatively correlate with overall job satisfaction.

CHAPTER 3

METHOD

A. Participants

Due to the intent to expand this study to the overall population of therapists who currently work with children with autism, this research was posted on several autism blogs and company websites to reach the maximum number of participants and enhance participation. Blogs and company websites were connected through general autism resource websites, the Autism Society, and individual contractors. The current data were obtained from a sample of 113 currently practicing therapists who work with individuals diagnosed with autism spectrum. Of these, 108 were female, with only 5 males. With regard to age, 42.5% of the therapists fell within the 26-32 age range. A majority of participants (60.2%) identified ABA as their primary therapeutic approach, but virtually all of the therapists acknowledged some level of integration of multiple approaches. Years of experience ranged from less than 1 year (13.3% of the participants) to more than 10 years (25.7% of participants), with a relatively even spread across intermediate points. Demographic frequencies can be found in Appendix F.

B. Measures

Described below are the three measures, including a brief demographic questionnaire that was used in this study. The latter three measures therapists were to complete pertained to their personality traits, their burnout levels and overall job satisfaction.

Demographic Questionnaire

The demographic questionnaire was a brief, 6-item survey providing information about the therapist. The demographic questionnaire included questions about the therapist's age, gender, ethnicity, number of years of experience as a therapist, therapist's primary therapeutic approach of current work, a rating of the level of personal and professional support therapist receives from supervisor. The demographic questionnaire can be found in Appendix A.

M5-120

The M5-120 is a version of the IPIP-NEO developed by Dr. John Johnson (Johnson, 2001). This is a shorter version of the original 300-item IPIP-NEO which contains only 120 items, still measuring the 5 main factors with their 6 underlying facets. The items are divvied proportionately with 24 questions pertaining to each overall factor and 4 questions pertaining to each individual facet, within each factor. This survey was filled out by the therapists and statements were responded to via Likert-type scale, answers ranging from 1 being "Very Inaccurate" to 5 "Very Accurate." The M5-120 has shown good item reliability, trait reliability ranging from .76 to .87 and good validity (Johnson, 2001). The M5-120 can be found in Appendix B.

Maslach Burnout Inventory- General Survey

The Maslach Burnout Inventory – General Survey was used to determine therapists' levels of Burnout (Schaufeli, Leiter, Maslach, & Jackson, 1996).   This inventory has 16 items, 5 pertaining to Exhaustion, 5 pertaining to Cynicism, and 6 related to Personal Efficacy. This survey was filled out by the therapists and the questions were responded to via Likert-type scale with 0 being "Never" and 6 being "Every day." The General

Survey has been found to have subscale Cronbach's alphas at .87 for Professional

Efficacy, .85 for Exhaustion, and .81 for Cynicism. Reliability coefficients for the three

subscales ranged from .69 to .87 and good validity (Taris et al., 1999). The Maslach

Burnout Inventory – General Survey can be found in Appendix C (In this study,

Cronbach's Alphas were as follows: Exhaustion-.91, Cynicism-.82, and Professional

Efficacy-.87).

Andrews and Withey Job Satisfaction Scale

The Andrews and Withey Job Satisfaction Scale (1976) was used as a 5 item

satisfaction scale responded to by the therapist, delivering their subjective affect about

their work.   Questions were responded to via Likert-type scale, 1 being "Terrible" and 7

being "Delighted." This survey intended to target concepts such as fellow workers, work

demand, work environment, work supervision, and the work itself. The Andrews and

Withey Satisfaction Scale has been found to significantly correlate at .70 with both the

Job Descriptive Index and Minnesota Satisfaction Questionnaire. It has also shown good

validity correlating highly with job performance, turnover intentions and organization

commitment (Rentsch & Steel, 1992). The Andrews and Withey Job Satisfaction Scale

can be found in Appendix D (In this study, Cronbach's Alpha for the Andrews and

Withey Job Satisfaction Scale was .84).

Procedure

Participants included only currently practicing therapists and they were debriefed

about specific requirements for each type of inventory and approximate time

requirements. Participants could e-mail me for further information or follow the provided

survey link. Participation was restricted to only those therapists who currently perform

therapy with children with autism, yet of any age range. After the consent forms were completed that explained the steps of the survey process, participants were allowed to enter into the study and begin with the demographic questions. Therapists filled out a short demographic survey simply asking in what range the therapist's age fell, gender, ethnicity, number of years' experience as a therapist, therapist's primary therapeutic approach of current work (for example, applied behavioral analysis, TEACCH, floortime, or other empirically-based therapy treatment), and a rating of the level of personal and professional support therapist received from supervisor. Therapists responded to a 120-item personality trait inventory, a 22-item burnout inventory, and a 5-item job satisfaction inventory. Following completion of the survey, participants were provided a brief summary of their scores on the five factor model of personality, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness based on their answers of the M5-120.

Analyses

Hypotheses were tested with correlational analyses. Specifically, the five broad personality factor scores were correlated with the dependent variables, namely the three burnout subscales and summed job satisfaction, independently. The resulting data addressed hypotheses 1, 2, 3 and 4. Next, the three burnout concepts were correlated with job satisfaction, addressing hypothesis 5.

For exploratory purposes, correlational analyses were also run with the six facets underlying each personality factor. Multiple regression analyses were run to explore possible multivariate relationships in cases where the zero-order correlations were suggestive of such relationships.

CHAPTER 4

RESULTS

Correlations

Pearson product-moment correlation analyses were conducted to examine the

relationship between the independent variables, the five scales of the five-factor model of

personality and the dependent variables, the three scales of burnout and a summed job

satisfaction score. The Andrews and Withey Job Satisfaction scale is reversed scored, as

1 is "delighted" and 7 is "terrible." Table 1 shows significant correlations between the

five-factor personality scales and burnout scales. Table 2 shows significant correlations

between the five-factor personality scales and overall job satisfaction. Lastly, table 3

shows significant correlations between burnout scales and overall job satisfaction.

Table 1.
Pearson's product-moment correlation coefficients between the five-factor model's
domains and the three burnout scales

FFM & Burnout	EXHAUSTION	CYNICISM	PROFF EFFICACY
EXTRAVERSION	-.184	**-.315****	**.413****
AGREEABLENESS	-.103	-.105	**.322****
CONCIENTIOUSNESS	-.107	**-.208***	**.369****
NEUROTICISM	**.380****	**.254****	- .254**
OPENNESS	.165	.175	-.001
p<.05* p<.01**			

Table 2.
Pearson product-moment correlation coefficients between the five-factor model's domains and overall job satisfaction

FFM & JOB SATISFACTION	JOB SATISFACTION
EXTRAVERSION	.427**
AGREEABLENESS	.107
CONSCIENTIOUSNESS	.184
NEUROTICISM	-.308**
OPENNESS	-.111
p<.05* p<.01**	

Table 3.
Pearson product-moment correlation coefficients between the three burnout scales and overall job satisfaction

BURNOUT & JOB SATISFACTION	JOB SATISFACTION
EXHAUSTION	-.541**
CYNICISM	-.661**
PROFF EFFICACY	.559**
p<.05* p<.01**	

Several significant correlations were found. Neuroticism had significant, positive correlations with all three subscales of burnout, comprised of Exhaustion, Cynicism, and Professional Efficacy. These correlations support the hypothesis that Neuroticism would influence all three subscales and also shares results with previous studies identifying Neuroticism has the largest, significant influence. Extraversion and Conscientiousness shared significant, negative correlations with Cynicism and significant, positive correlations with Professional Efficacy. These correlations support the hypothesis that Extraversion and Conscientiousness may protect an individual from burnout. Agreeableness was found to have a significant, positive correlation with Professional Efficacy, not fully supporting the proposed hypotheses, but it does support the idea that

Agreeableness can influence burnout, potentially because Agreeableness pertains to trust, cooperation, and sympathy. Openness did not exhibit any significant correlations with any of the three burnout scales or job satisfaction, which was presumed likely as no other studies have shown consistent correlations with Openness and the burnout scales. Secondly, Openness is not related to an individual's relationship with their work but rather a characteristic of intellectual intrigue.

When looking at the relationships between the five factors of personality and overall job satisfaction, two significant correlations were found. Extraversion was shown to have a significant, positive correlation with overall job satisfaction and Neuroticism possessed a significant, negative correlation with overall job satisfaction. Both these correlations are supportive of the hypothesis that Extraversion should positively correlate and Neuroticism should negatively correlate with overall job satisfaction. Additionally, when looking at the subscales of burnout and their relationship to an individual's overall job satisfaction, both Exhaustion and Cynicism possess significant positive correlations with job satisfaction and Professional Efficacy.

Further correlational analyses were conducted between individual facets and the dependent variables, which are the three burnout scales and overall job satisfaction. . The facets of each domain, their corresponding names, and correlation coefficients can be found in Appendix G for reference. Amongst all significant correlations the domain facets shared with the dependent variables, significant correlations were found at both $p<.05$ and $p<.01$ levels. As noted above, the Neuroticism domain was significantly correlated to all dependent variables. Out of 24 possible relationships with the 6 facets

underlying Neuroticism to be correlated with the 4 dependent variables, 17 significant

correlations were found. As with Extraversion, the facets underlying the Extraversion

domain showed significant correlations, a total of 16 out of 24 possible, between

individual facets and the 4 dependent variables. Openness, as a domain, did not result in

any significant correlations therefore, it may be assumed that any significant correlations

between underlying facets and the dependent variables can be accounted for by other

domains and their corresponding facets. It is interesting to note the only significant

correlation between Openness facets and the dependent variables is the facet of

emotionality, pertaining to one's own receptivity to one's own emotions and feelings, and

it's correlation with Professional Efficacy. Agreeableness did result in a significant

correlation with Professional Efficacy, likewise 7 out of 24 possible correlations with

facets were found. Lastly, because Conscientiousness exhibited significant correlations,

particularly a negative relationship with Cynicism, and a positive correlation with overall

job satisfaction, Conscientiousness facets possessed 8 out of 24 possible significant facet

correlations.

Multiple Regressions

To further understand the influence of personality factors beyond the correlational

level, multiple regressions were performed with the four predicting personality factor

domains, namely Neuroticism, Extraversion, Agreeableness, and Conscientiousness, as a

group, to identify their influence on the dependent variables individually. As a group of

four predicting personality factors, the model was significant for Exhaustion, R=.383,

$F(4,102)=4.376$, $p<.05$. The only significant contributor was Neuroticism with $\beta=.400$.

In regards to Cynicism, the model was significant, R=.344, $F(4,102)=3.42$, $p<.05$. The

only significant contributor was Extraversion with $\beta=-.234$. For Professional Efficacy, the model was significant, $R=.497$, $F(4,102)=8.35$, $p<.001$. Extraversion, again, was the only significant contributor with $\beta=.257$. Lastly, when assessing the regression of the model on job satisfaction, the model was significant, $R=.444$, $F(4,102)=6.27$, $p<.001$. The only significant contributor was Extraversion with $\beta=.370$. Looking at the variances contributed by those significant domains composing the predicting model, Extraversion and Neuroticism would appear to be the most powerful sources of influence and overall variance amongst burnout scales and job satisfaction.

CHAPTER 5

DISCUSSION

Personality is a key factor when identifying in what type of work a person will flourish. Personality is a pattern of reactions an individual has with their environment that is influenced by the individual's perception and inherent strengths and weaknesses. Consequently, it is useful to assume that personality has an influence on individuals' success and comfortableness in careers. The five-factor model of personality can be said to be a strong predictor of future work related behavior including performance and training success amongst many others (Barrick, Mount & Judge, 2001). In a study conducted by Erickson (2004), he found that 40% of Fortune 100 companies use personality tests to assess job applicants. Companies, however, need take caution in formally administering personality assessments to avoid discrimination acts. Consequently, there has been increasing research on training employers and other human resource workers on informal personality assessments to most closely identify those potential workers that will flourish within the specified position of hiring and with other fellow workers they may interact with (Powell, Goffin, & Gellatly, 2011). When looking at worker's personalities to predict future job success, they are potentially looking at not only what the worker will produce but also for how long they can produce, avoiding burnout. The increase in awareness of the psychological phenomenon of burnout is important for preventing burnout for the well-being of workers but also to expend fewer resources for interventions and potentially training new workers if workers leave. Because burnout is ultimately a detachment of the worker and the work they

provide, workers become less fulfilled, feel less useful, and they may perceive their contributions as irrelevant, overall a decrease in total job satisfaction. In industrial-organizational psychology, this is the cycle in which this field's research tries to find avenues of prevention.

The current study investigated the relationship between the five-factor model of personality, three scales of burnout, and overall job satisfaction in a sample of therapists who provide therapy to individuals diagnosed with autism in attempt to identify the influence of personality profiles on burnout and job satisfaction. Many hypotheses were supported through assessment of correlations between domains and dependent variables. Extraversion exhibited significant correlations at the $p<.01$ level, with a negative correlation with Cynicism and positive correlations with Professional Efficacy and overall job satisfaction, all above the .3 level, exhibiting moderate correlations. Extraversion did not exhibit a significant correlation with Exhaustion; thus, hypothesis 1 was partially supported. Numerous significant correlations were exhibited between Extraversions facets and the dependent variables. However, the only two facets showing significant, albeit weak, correlations with Exhaustion were friendliness and cheerfulness. With these correlations in this occupation, it can be assumed that those individuals who possess higher levels of Extraversion will be more successful in providing therapy to individuals with autism diagnoses in both their perceived level of job satisfaction but also by possessing characteristics that will help buffer them from overall burnout. Extraverts, those scoring higher than the average population, will be less likely to feel exhausted and cynical towards the work they provide and ultimately feel more professionally efficacious. Extraverts can ultimately be assumed to provide better quality of work, be

more satisfied with the work they provide, and have a higher performance rating overall. The Agreeableness domain exhibited only one significant correlation at the moderate level with Professional Efficacy, $p<.01$. This only partially supported hypothesis 2. Out of the 6 significant correlations found between the Agreeableness facet and the dependent variables, those not found between Agreeableness and Professional Efficacy were weak, indicating the most significant relationship between Agreeableness and burnout is found within Professional Efficacy. Individuals possessing higher levels of Agreeableness will particularly experience greater Professional Efficacy than lower scorers. The Morality, Altruism and Cooperation facets of Agreeableness, particularly, showed significant correlations with Professional Efficacy which may make these individuals better with team work, which is important in the field of autism therapy since typically autistic individuals have a therapy team, consisting of multiple therapists. This can raise therapy team morale by maintaining a fluent communication stream amongst therapists, family members, and supervisors and sharing rewarding gains, experiences, and other problem-solving ideas with team members. Likewise, Conscientiousness may also be important for teams. Overall, Conscientiousness showed a weak, negative correlation with Cynicism and a moderate, positive correlation with Professional Efficacy. These correlations only partially supported hypothesis 3. Neuroticism exhibited significant correlations across all dependent variables, with moderate correlations between Exhaustion, Professional Efficacy, and job satisfaction and a weak correlation with Cynicism. These correlations fully support hypothesis 4. As mentioned earlier, the strong implications Extraversion exhibits on burnout and job satisfaction, Neuroticism seems to be equally important to identify. Individuals possessing high scores of

Neuroticism would not be ideal workers in this line of work. This is also consistent with other research in human services occupations as those who possess higher levels of Neuroticism tend to be more anxious, angry, self-conscious, vulnerable, and more prone to depression. It is easy to see how these characteristics would prone an individual to burnout and lower levels of total job satisfaction. Having said this, those individuals who may be more neurotic than others cannot be discriminated against employment, especially in a field of autism therapy where there is a greater demand than supply due to the increase in prevalence rates of autism diagnoses and more intensive job requirements. However, these individuals should be offered more frequent trainings, supervision, and other forms of burnout intervention. All burnout scales possessed strong correlations with overall job satisfaction, fully supporting hypothesis 5. Lastly, Openness possessed no significant correlations with any dependent variables which was expected. Openness does not exhibit any strong implications in this line of work, however, Openness can be deemed a formidable characteristic because of its makeup of imagination, adventurousness, intellect, and liberalism facets.

Limitations

This study assessed and found a number of significant correlations between the three inventories that were explored. However, several limitations need to be addressed. Almost all participants were female and almost half were between 26 and 32 years of age. Consequently, this investigation may not be widely generalizable to other occupational groups that may not be predominantly female. Additionally, a large proportion of the participants identified applied behavioral analysis as their primary therapeutic approach to work. Applied behavioral analysis has unique aspects that may not be shared with

other therapy modalities such as TEACCH, embedded routines, floor-time and so forth. This is a highly unique profession that is individualized for clients, consequently other factors that may influence the generalizability of this study may include functioning levels of clients, environments in which therapy is provided, hours worked, and therapists' case load.

Future Research

Future research should include attempts to generalize this study and its results to other forms of child intervention and therapeutic services including early education and special education teachers and therapists of other disabilities including mental retardation, intellectual disability and other developmentally disabled therapies. Future research should also include identifying potential buffers for burnout for therapy providers including coping skills, supervisory support, organizational and time management strategies, and other strategies to manipulate environments to compliment providers' and clients' strengths and weaknesses.

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Appendices

APPENDIX A

Demographic Questionnaire

Therapists will respond to items with the appropriate answer:

1. How old are you?

    0= 18-25
    1= 26-32
    2= 33-40
    3= 41-47
    4= 48-55
    5= 55+

2. What is your gender?

    0=Male
    1=Female

3. What is your ethnicity?

    0=White
    1=Black or African American
    2=American Indian or Alaska Native
    3=Asian
    4=Native Hawaiian or other Pacific Islander
    5=Two or more races

4. How many years experience do you have as a therapist?

    0= 0-1
    1= 1-3
    2= 3-5
    3= 5-7
    4= 7-10
    5= 10+

APPENDIX B

FIVE-FACTOR PERSONALITY INVENTORY – M5-120

Respondents indicate how accurate the following statements are as: *very inaccurate, moderately inaccurate, neither inaccurate or accurate, moderately accurate*, or *very accurate*.

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate or Accurate	Moderately Accurate	Very Accurate

1.   Worry about things.
2.   Make friends easily.
3.   Have a vivid imagination
4.   Trust others.
5.   Complete tasks successfully.
6.   Get angry easily.
7.   Love large parties.
8.   Believe in the importance of art.
9.   Use others for my own ends.
10. Like to tidy up.
11. Often feel blue.
12. Take charge.
13. Experience my emotions intensely.
14. Love to help others.
15. Keep my promises.
16. Find it difficult to approach others.
17. Am always busy.
18. Prefer variety to routine.
19. Love a good fight.
20. Work hard.
21. Go on binges.
22. Love excitement.
23. Love to read challenging material.
24. Believe that I am better than others.
25. Am always prepared.
26. Panic easily.
27. Radiate joy.
28. Tend to vote for liberal political candidates.
29. Sympathize with the homeless.

30. Jump into things without thinking.
31. Fear for the worst.
32. Feel comfortable around people.
33. Enjoy wild flights of fantasy.
34. Believe that others have good intentions.
35. Excel in what I do.
36. Get irritated easily.
37. Talk to a lot of different people at parties.
38. See beauty in things that others might not notice.
39. Chat to get ahead.
40. Often forget to put things back in their proper place.
41. Dislike myself.
42. Try to lead others.
43. Feel others' emotions.
44. Am concerned about others.
45. Tell the truth.
46. Am afraid to draw attention to myself.
47. Am always on the go.
48. Prefer to stick with things that I know.
49. Yell at people.
50. Do more than what's expected of me.
51. Rarely overindulge.
52. Seek adventure.
53. Avoid philosophical discussions.
54. Think highly of myself.
55. Carry out my plans.
56. Become overwhelmed by events.
57. Have a lot of fun.
58. Believe that there is no absolute right or wrong.
59. Feel sympathy for those who are worse off than myself.
60. Make rash decisions.
61. Am afraid of many things.
62. Avoid contacts with others.
63. Love to daydream.
64. Trust what people say.
65. Handle tasks smoothly.
66. Lose my temper.
67. Prefer to be alone.
68. Do not like poetry.

69. Take advantage of others.
70. Leave a mess in my room.
71. Am often down in the dumps. Take control of things.
72. Rarely notice my emotional reactions.
73. Am indifferent to the feelings of others.
74. Break rules.
75. Only feel comfortable with friends.
76. Do a lot in my spare time.
77. Dislike changes.
78. Insult people.
79. Do just enough work to get by.
80. Easily resist temptations.
81. Enjoy being reckless.
82. Have difficulty understanding abstract ideas.
83. Have a high opinion of myself.
84. Waste my time.
85. Feel that I'm unable to deal with things.
86. Love life.
87. Tend to vote for conservative political candidates.
88. Am not interested in other people's problems.
89. Rush into things.
90. Get stressed out easily.
91. Keep others at a distance.
92. Like to get lost in thought.
93. Distrust people.
94. Know how to get things done.
95. Am not easily annoyed.
96. Avoid crowds.
97. Do not enjoy going to art museums.
98. Obstruct others' plans.
99. Leave my belongings around.
100. Leave my belongings around.
101. Feel comfortable with myself.
102. Wait for others to lead the way.
103. Don't understand people who get emotional.
104. Take no time for others.
105. Break my promises.
106. Am not bothered by difficult social situations.
107. Like to take it easy.

108. Am attached to conventional ways.
109. Get back at others.
110. Put little time and effort into my work.
111. Am able to control my cravings.
112. Act wild and crazy.
113. Am not interested in theoretical discussions.
114. Boast about my virtues.
115. Have difficulty starting tasks.
116. Remain calm under pressure.
117. Look at the bright side of life.
118. Believe that we should be tough on crime.
119. Try not to think about the needy.
120. Act without thinking

APPENDIX C

MASLACH BURNOUT INVENTORY – GENERAL SURVEY

Respondents indicate how often the following items occur: *never, sporadic (a few times a year or less), now and then (once a month or less), regular (a few times a month), often (once a week), very often (a few times a week), and daily.*

> **0-Never**
> **1-Sporadic (a few times a year or less)**
> **2-Now and then (once a month or less)**
> **3-Regular (a few times a month)**
> **4-Often (once a week)**
> **5-Very often (a few times a week)**
> **6-Daily**

1. I feel emotionally drained from my work.
2. I feel used up at the end of the workday.
3. I feel tired when I get up in the morning and have to face another day on the job.
4. Working all day is really a strain for me
5. I can effectively solve the problems that arise in my work.
6. I feel burned out from my work.
7. I feel I'm making an effective contribution to what this Organization does.
8. I have become less interested in my work since I started this job
9. I have become less enthusiastic about my work.
10. In my opinion, I am good at my job.
11. I feel exhilarated when I accomplish something at work.
12. I have accomplished many worthwhile things in this job.
13. I just want to do my job and not be bothered.
14. I doubt the significance of my work.
15. I have become more cynical about whether my work contributes anything.
16. At my work, I feel confident that I am effective at getting things done.

APPENDIX D

ANDREWS AND WITHEY JOB SATISFACTION SCALE

Respondents indicate how they feel about their job: *delighted, pleased, mostly satisfied,*

mixed about equally satisfied and dissatisfied), mostly dissatisfied, unhappy or terrible.

1-Delighted
2-Pleased
3-Mostly Satisfied
4-Mixed (about equally satisfied and dissatisfied)
5-Mostly Disssatisfied
6-Unhappy
7-Terrible

1. How do you feel about your job?

2. How do you feel about the people you work with –your co-workers?

3. How do you feel about the work you do on your job –the work itself?

4. What is it like where you work --- the physical surroundings, the hours, the amount of work you are asked to do?

5. How do you feel about what you have available for doing your job – I mean equipment, information, good supervision, and so on?

APPENDIX E

Table 4a. Demographics - Gender

Gender	Frequency	Percent
Male	5	4.4
Female	108	95.6
Total	113	100.0

Table 4b. Demographics - Age

Age yrs.	Frequency	Percent
18-25	24	21.2
26-32	48	42.5
33-40	18	15.9
41-47	7	6.2
48-55	7	6.2
55+	9	8.0
Total	113	100.0

Table 4c. Demographics – Therapeutic Approach

Therapeutic Approach	Frequency	Percent
Applied Behavior Analysis	68	60.2
TEACCH	2	1.8
Pivotal-Respose Training	3	2.7
Embedded Routines	1	0.9
Floortime	7	6.2
Eclectic	23	20.4
Other	9	8
Total	113	100

Table 4d. Demographics – Number of Years Experience

Years of Experience	Frequency	Percent
0-1	15	13.3
1-3	26	23.0
3-5	10	8.8
5-7	19	16.8
7-10	13	11.5
10+	29	25.7
Total	112	99.1
Missing	1	.9
	113	100.0

APPENDIX F

Table 5

Individual Domain Facet Correlations with Dependent Variables

Facets	Exhaustion	Cynicism	Proff. Eff.	Job Sat
N1 - Anxiety	**.327****	**.234***	**-.263****	**.246***
N2 - Anger	**.268****	**.292***	**-.200***	**.216***
N3 - Depression	**.316****	**.334****	**-.358****	**.295****
N4 - Self-consciousness	**.217***	.063	**-.226***	.156
N5 - Impulsiveness	-.038	.011	.067	-.035
N6 - Vulnerability	**.367****	.135	**-.307****	**.290****
E1 - Friendliness	**-.219***	**-.301****	**.425****	**-.370****
E2 - Gregariousness	-.135	**-.191***	**.243***	**-.244***
E3 - Assertiveness	-.137	**-.245***	**.354****	-.178
E4 - Activity Level	-.001	**-.239***	**.281****	**-.250****
E5 - Excitement-seeking	-.016	.036	-.027	-.212
E6 - Cheerfulness	**-.213***	**-.292****	**.341****	**-.420****
O1 - Imagination	.142	.194	-.140	.067
O2 - Artistic Interests	.226	.142	-.004	.110
O3 - Emotionality	-.029	-.073	**.226***	-.075
O4 - Adventurousness	-.067	-.017	.134	-.122
O5 - Intellect	.157	.099	.040	.085
O6 - Liberalism	.100	.218	-.184	.277
A1 - Trust	**-.199***	-.145	.174	**-.207***
A2 - Morality	-.056	-.126	**.348****	-.147
A3 - Altruism	-.153	-.152	**.398****	-.129
A4 - Cooperation	-.153	-.118	**.267****	-.084
A5 - Modesty	**.233***	.250	-.093	.169
A6 - Sympathy	-.008	.022	.064	.139
C1 - Self-efficacy	-.087	-.154	.340	**-.262****
C2 - Orderliness	-.106	-.086	.154	-.026
C3 - Dutifulness	-.110	**-.300****	**.317****	-.169
C4 - Achievement-striving	.010	-.160	**.389****	-.137
C5 - Self-discipline	-.127	-.187	**.374****	**-.267****
C6 - Cautiousness	-.048	-.171	**.228***	-.145