

BURNOUT AND JOB SATISFACTION OF BEHAVIOR TECHNICIANS WORKING IN
PUBLIC SCHOOLS: A QUANTITATIVE CORRELATIONAL STUDY

By

Sara Dougherty

Bachelor of Arts in Psychology from Western New England University (2012)
Master of Arts in Applied Behavior Analysis from the University of South Florida (2015)

A DISSERTATION

Presented to the Affiliated Faculty of
The College of Graduate and Professional Studies
at the University of New England

Submitted in Partial Fulfillment of Requirements
For the Degree of Doctor of Education

It was presented on
06/01/2023
and reviewed by:

Audrey Rabas, Ph.D., Lead Advisor
University of New England

Laura Bertonazzi, Ed.D., Secondary Advisor
University of New England

ALL RIGHTS RESERVED

© 2021

Sara B. Dougherty

Doctor of Education Final Dissertation Approval Form

This Dissertation was reviewed and approved by:

Lead Advisor Signature: *Audrey Rabas, Ph.D.*

Lead Advisor (print name): Audrey Rabas, Ph.D.

Secondary Advisor Signature: *Laura Bertonazzi EdD*

Secondary Advisor (print name): Laura Bertonazzi

Date: June 5, 2023

BURNOUT AND JOB SATISFACTION OF BEHAVIOR TECHNICIANS WORKING IN
PUBLIC SCHOOLS: A QUANTITATIVE CORRELATIONAL STUDY

ABSTRACT

The purpose of this quantitative correlational study was to determine if the characteristics of burnout predict job satisfaction of behavior technicians in public schools. There was a need to examine if the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that have resulted in high rates of attrition also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). An online survey was created using REDCap consisting of the Maslach Burnout Inventory-Educators Survey (Maslach et al., 1996), the Minnesota Satisfaction Questionnaire short form (Weiss et al., 19a 77), and a demographic questionnaire. Recruitment occurred via social media and 78 behavior technicians participated in the study. Using multiple linear regression, the first finding of this study expanded the literature by suggesting that the characteristics of burnout are significantly impacted by overall job satisfaction. The second finding of this study was that behavior technicians in public schools did not meet all the requirements of burnout. Although, the results of this study did align with the research on behavior technicians in private settings, which found that high levels of depersonalization were not expected (Novack & Dixon, 2019). The third finding of this study indicated that intrinsic satisfaction significantly impacted personal accomplishment. School districts can utilize this study's findings and future research to increase job satisfaction and decrease burnout experienced by behavior technicians who play such a valuable role in schools.

Keywords: Burnout, Job Satisfaction, Behavior Technicians, Public School

DEDICATION

This dissertation is dedicated to all the behavior technicians I have worked with in Manatee County School District. They inspired me to pursue my doctorate in educational leadership and focus my research on increasing job satisfaction. These fantastic individuals can get hit, kicked, bit, and spit at daily by students, and they decide to come back to work the next day for meager pay. Unfortunately, it can be a thankless job, and I have witnessed burnout's effects on these individuals over the last eight years. Nevertheless, I will do my best to show them my gratitude and advocate for changes to support them better, as they are the district's unsung heroes.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
Definition of Key Terms	3
Statement of The Problem.....	5
Purpose of The Study	6
Research Question And Design.....	7
Conceptual and Theoretical Framework	8
Theoretical Framework.....	8
Assumptions, Limitations, and Scope.....	9
Rationale and Significance.....	10
Summary	11
CHAPTER 2: LITERATURE REVIEW	12
Conceptual and Theoretical Framework	15
Theoretical Framework.....	17
Individuals with Disabilities Education Act.....	18
Impact of IDEA	20
Behavior Technicians.....	21
Behavior Technicians in School Settings	22
Burnout.....	23
Burnout Among Educators	23

Summary	31
CHAPTER 3: METHODOLOGY	34
Site Information and Demographics	36
Participants and Sampling Method	36
Instrumentation and Data Collection.....	38
Data Analysis	40
Limitations, Delimitations, and Ethical Issues.....	41
Limitations.....	42
Delimitations	42
Ethical Issues	43
Trustworthiness	44
Credibility	44
Transferability	45
Validity	45
Confirmability	45
Summary	46
CHAPTER 4: RESULTS.....	47
Analysis Method	49
Assumptions of Multiple Linear Regression.....	51
Presentation of Results and Findings	52

Demographics	53
Reliability	56
Descriptive Statistics	57
Pearson Correlation	59
Multiple Linear Regression	61
Summary	65
CHAPTER 5: CONCLUSION	68
Interpretation and Importance of Findings	70
Research Question	71
Implications	74
Recommendations for Action	76
Recommendations for Further Study	77
Conclusion	78
REFERENCES	82
APPENDIX A	93
APPENDIX B	95
APPENDIX C	96
APPENDIX D	98
APPENDIX E	99
APPENDIX F	100
APPENDIX G	103

APPENDIX H.....	104
APPENDIX I.....	107
APPENDIX J.....	108
APPENDIX K.....	109
APPENDIX L.....	110
APPENDIX M.....	111
APPENDIX N.....	119
APPENDIX O.....	120
APPENDIX P.....	123
APPENDIX Q.....	124
APPENDIX R.....	125
APPENDIX S.....	130
APPENDIX T.....	131
APPENDIX U.....	132
APPENDIX V.....	134
APPENDIX W.....	140
APPENDIX X.....	141
APPENDIX Y.....	143

LIST OF TABLES

Table 1. Age Range of Participants	53
Table 2. Ethnicity of Participants.....	54
Table 3. Months/Years as a Behavior Technician	54
Table 4. Job Title	55
Table 5. Highest Degree Earned	55
Table 6. State Participants Work In	56
Table 7. Descriptive Statistics of MBI-ES.....	58
Table 8. Descriptive Statistics of MSQ.....	59
Table 9. Pearson Correlation of MSQ vs. MBI-ES	60
Table 10. Regression Coefficients for MSQ General	62
Table 11. Regression Coefficients for MSQ Intrinsic	64
Table 12. Regression Coefficients for MSQ Extrinsic	65

CHAPTER 1: INTRODUCTION

Behavior technicians provide a critical service to children who demonstrate challenging behaviors. Behavior technicians are specifically trained in data collection procedures and implementing interventions to prevent problematic behaviors, teaching and reinforcing appropriate behaviors, and intervening with inappropriate behaviors (Behavior Analyst Certification Board [BACB], 2017). When working in private settings, individuals attain national certification as registered behavior technicians (RBTs), but in the educational environment, this certification is only sometimes required (BACB, 2017). Since the RBT position was created in 2014, the number of individuals with the certification has grown to 130,273 in the United States. Of those, 5,471 identify as working in education (BACB, 2022). Researchers have demonstrated that managing student behaviors can cause undue stress for teachers and paraprofessionals and has led to experiencing the characteristics of burnout (Garwood et al., 2017; Hester et al., 2020; Walker et al., 2017). However, even though behavior technicians often work in education, the impact of managing behaviors and burnout on behavior technicians is limited to RBTs in private settings (Novack & Dixon, 2019).

Burnout in the field of education has a detrimental effect on student success and teacher health and has been identified as the primary reason educators leave the field of education (Donley et al., 2019; Hester et al., 2020; Park & Shin, 2020; Sims, 2020; Skaalvik & Skaalvik, 2020; Williams & Dikes, 2015). Burnout is characterized by emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment (Maslach & Jackson, 1981). One in four teachers are considering leaving the field due to burnout (Steiner & Woo, 2021). In addition, the National Center for Education Statistics (NCES, 2022) indicated that hundreds of thousands of teachers leave the profession each year; as a result, research has

focused on factors that impact retention (Donley et al., 2019; Hester et al., 2020; Park & Shin, 2020; Sims, 2020; Skaalvik & Skaalvik, 2020; Williams & Dikes, 2015). In reviewing the literature of educators and RBTs regarding burnout, the common factors include role conflict, administrative support, job satisfaction, and student characteristics (Brouwers & Tomic, 2016; Hester et al., 2020; Park & Shin, 2020; Robinson et al., 2019).

Role conflict that leads to burnout has been attributed to difficulty collaborating with colleagues and the need for clarity with expectations (Ansley et al., 2016; Hester et al., 2020). Lack of resources, caseloads, bureaucracy, lack of understanding, and being dismissive of students were all identified as administrative support factors that increased burnout (Hester et al., 2020; Schilling et al., 2017). Low job satisfaction increases shortages in education and is impacted explicitly by professional development, administrative support, personal factors, compensation and recognition, and self-efficacy (Brouwers & Tomic, 2016; Robinson et al., 2019; Sims, 2020; Skaalvik & Skaalvik, 2020). Self-efficacy refers to an individual's belief that they can execute a specific skill, and a decreased sense of self-efficacy can negatively impact teachers' mental health and well-being (Ansley et al., 2016; Bandura, 1986). Student characteristics can refer to students with disabilities and students that demonstrate challenging behaviors, as these populations have been shown to impact significantly the feelings of burnout (Park & Shin, 2020; Saloviita & Pakarinen, 2021).

Teachers and paraprofessionals have indicated that managing challenging behaviors can lead to increased levels of burnout, and researchers demonstrate that students taught by those experiencing burnout are more likely to struggle in the classroom socially (Garwood et al., 2017; Gilmour et al., 2022; Hester et al., 2020; Oberle et al., 2020). Challenging student behaviors include aggression, self-injury, property destruction, disruption, inattention, and impulsivity

(Cooper et al., 2019). In 2004, the Individuals with Disabilities Education Act (IDEA) outlined the need for students demonstrating challenging behavior, both with and without disabilities, to receive increasing levels of support using scientific research-based interventions based on the individual's needs. Students with the most significant challenging behaviors that have not been responsive to other levels of support may require a functional behavior assessment (FBA), which in turn informs the development of an individualized behavior intervention plan (BIP), which school staff is held responsible for implementing (IDEA, 2004). Behavior technicians have been utilized to work directly with these students and model how to implement the BIPs as teachers and paraprofessionals have indicated difficulty with managing challenging behaviors and the implementation of behavior management strategies (Hester et al., 2020; Novack & Dixon, 2019; Walker et al., 2017).

Since behavior technicians in public school settings play such a critical role, there is a need to ensure that the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals are not similarly shared by behavior technicians. High levels of burnout and low job satisfaction impact the quality of instruction provided to students and are the leading causes of teacher and paraprofessional attrition (Hester et al., 2020; Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, determining if there is an impact of burnout and job satisfaction with behavior technicians in public schools may potentially mitigate the impact seen with other populations.

Definition of Key Terms

The key terms of this study are conceptually defined as:

Behavior Intervention Plan (BIP). Intervention strategies that relate to the function determined in the FBA include preventative, educational, and reinforcement strategies (Cooper et al., 2019).

Behavior Technicians. Paraprofessionals trained explicitly in data collection, strategies for preventing challenging behaviors, teaching, reinforcing appropriate skills, and intervening with challenging behaviors. Individuals can pursue national certification as registered behavior technicians, requiring the completion of a 40-hour training program, passing a competency test, passing the registered behavior technician examination, and receiving supervision by a certified provider (BACB, 2017).

Burnout. A psychological syndrome consisting of an increase in emotional exhaustion and depersonalization and a decrease in personal accomplishment (Maslach & Jackson, 1981).

Challenging Behaviors. Behavior that impacts or risks impacting the learning environment or the ability of the student to engage appropriately with peers and adults (Powell et al., 2006).

Depersonalization. Individuals will develop negative or cynical attitudes and feelings about their clients (Maslach & Jackson, 1981).

Emotional Exhaustion. Individuals can no longer give of themselves when emotional resources are depleted (Maslach & Jackson, 1981).

Functional Behavior Assessment (FBA). A process for developing a useful understanding of why a behavior occurs and how this behavior relates to the environment (Cooper et al., 2019).

Individuals with Disabilities Education Act (2004). A law establishing a free appropriate education for children with disabilities that governs how states and public agencies provide early intervention and special education services to individuals from birth to 21 years of age (IDEA, 2004).

Job Satisfaction. A pleasurable feeling that results from the perception that one's job fulfills or allows for the fulfillment of one's essential job values (Noe et al., 2010).

Maslach Burnout Inventory – Educators Survey. An instrument that assesses the three characteristics of burnout: emotional exhaustion, depersonalization, and personal accomplishment, produces a score for each characteristic (Maslach et al., 1996).

Paraprofessional. Paraprofessionals in education who work under a certified teacher's supervision to provide support instructionally (U.S. Department of Education, 2017).

Personal Accomplishment. Individuals' feelings of competence, success, or achievement regarding their work with clients (Maslach & Jackson, 1981).

Self-Efficacy. Self-efficacy is one's belief in their ability to execute necessary behaviors to attain specific types of performances (Bandura, 1986).

Statement of the Problem

There was a need to examine if the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that have resulted in high rates of attrition also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). Educators have been leaving the field by the hundreds of thousands each year, and researchers have found that one of the main reasons is burnout (NCES, 2022; Park & Shin, 2020; Sims, 2020; Skaalvik & Skaalvik, 2020). Burnout of general education teachers, special education teachers, and paraprofessionals in public and private settings have been assessed over the years to determine the mitigating factors (Barnes et al., 2018; Park & Shin, 2020; Sims, 2020). Among those populations, burnout has been correlated with low job satisfaction and attributed to factors such as pay, support, professional development, and self-efficacy (Ansley et al., 2016; Bettini et al., 2016; Gaon, 2018; Madigan & Kim, 2021; Skaalvik & Skaalvik, 2020). Burnout causes ongoing health issues and impacts the

quality of instruction provided to students (Ansley et al., 2016; Gilmour et al., 2022; Hester et al., 2020; Park & Shin, 2020; Williams & Dikes, 2015).

Behavior technicians are critical in the public school setting as teachers identify dealing with student behavior as one of the most stressful components of their jobs (Hester et al., 2020). In addition, paraprofessionals often lack knowledge in managing challenging behaviors due to insufficient professional development (Wiggs et al., 2021). Unfortunately, behavior technicians, who are specifically trained in managing children's challenging behaviors, have only been assessed for burnout and job satisfaction in the home, clinic, or specialized private school settings (BACB, 2017; Novack & Dixon, 2019).

Purpose of the Study

The purpose of this quantitative correlational study was to determine if the characteristics of burnout predict job satisfaction of behavior technicians in public schools. Burnout results after an individual experiences stress for long periods and has been associated with ongoing health concerns and is indicated as one of the main reasons for educators leaving the field (Hester et al., 2020; Maslach & Jackson, 1981; Park & Shin, 2020). In addition, experiencing low job satisfaction has led to an increase in shortages of educators due to attrition (Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, examining the relationship between job satisfaction factors and the level of burnout of behavior technicians in public schools helped determine if burnout impacted job satisfaction for this specific population and provided recommendations to potentially mitigate the effects seen in other populations in public schools.

Research Question and Design

This study assessed burnout and job satisfaction of behavior technicians in public schools. The purpose was to determine the relationship between these two factors. In support of this quantitative correlational study, the following research question was formulated:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

This study utilized a correlational design through the collection of quantitative data to answer the research question. A correlational design was selected to determine the degree, strength, and type of relationship between the variables (Bloomfield & Fisher, 2019). The survey for this quantitative study included a demographic questionnaire, the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach et al., 1996), and the Minnesota Satisfaction Questionnaire short form (MSQ; Weiss et al., 1977). The participants' rating of the 22 factors in the MBI-ES and the 20 items in the short form of the MSQ indicated the overall burnout level and job satisfaction factors. The data were then analyzed using multiple linear regression to determine if burnout predicted job satisfaction of behavior technicians in public schools.

Conceptual and Theoretical Framework

The passing of the Individuals with Disabilities Education Act (2004) put additional demands on teachers and paraprofessionals by requiring students with disabilities to be taught in the least restrictive environment, in addition to providing increasing levels of interventions to students demonstrating behavioral needs, both with and without disabilities. With increasing demands and a consistent national educator attrition rate of around 8% annually, and a greater risk for attrition when working with students with more challenging needs, several researchers have focused on retention and determined that burnout is one of the leading factors for educators to leave the field (NCES, 2022; Park & Shin, 2020; Saloviita & Pakarinen, 2021; Sims, 2020).

Managing challenging behavior has been indicated as a factor related to burnout, as teachers and paraprofessionals often lack the knowledge, training, or resources in the classroom (Hester et al., 2020; Oberle et al., 2020; Owens et al., 2018; Saloviita & Pakarinen, 2021; Wiggs et al., 2021). The utilization of behavior technicians, specifically trained in managing student behavior, has been vital in addressing the needs of these students and providing support to teachers and paraprofessionals (Novack & Dixon, 2019). Behavior technicians are valuable in public school settings for addressing the behavioral needs of students, but there is a lack of research on the impact of burnout in this setting. The conceptual framework of this research study is guided by retention, as it has been demonstrated to be critical in the field of education, and researchers need to determine the factors that influence burnout for this essential population to mitigate attrition.

Theoretical Framework

Burnout theory was initially introduced by Freudenberger in 1974 based on observations of his colleagues and personal experiences in the workplace but was later defined using a

quantitative approach by Maslach and Jackson in 1981 (Freudenberger, 1974; Maslach & Jackson, 1981). Burnout is characterized by emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment, which were critical in developing the Maslach Burnout Inventory (Maslach & Jackson, 1981). This tool is one of the most utilized questionnaires to assess burnout and has since been specifically adapted for the field of education (Heinemann & Heinemann, 2017; Maslach et al., 1996). In education, burnout impacts the individual's health, wellness, and willingness to stay in the field and negatively impacts student progress (Donley et al., 2019; Hester et al., 2020; Williams & Dikes, 2015).

Assumptions, Limitations, and Scope

For this quantitative study, it was assumed that behavior technicians who participated work directly with students displaying challenging behaviors in a public school setting, potentially serving students from prekindergarten to 12th grade. In addition, it was assumed that all participants understood the directions of the entire online survey and the instructions for each individual survey or question necessary to complete all components. The MBI-ES is reliable and valid for assessing educators' burnout characteristics (Maslach et al., 1996). The MSQ short form is reliable and valid for assessing the factors of job satisfaction (Weiss et al., 1977). Finally, the sample was representative of behavior technicians as participants ranged across several school districts. These assumptions were considered true at the onset of this study.

A few limitations were noted that had a potential impact on this study. Due to the use of a correlational study, a limitation of this study is that only an association can be determined between the variables and not a causal relationship. Also, using a correlational study limits the generalizability of the results to the specific group of behavior technicians who work in public schools. In addition, the MBI-ES and MSQ relied upon participant self-reporting, which could be

impacted by the type of day the participant had. The study's results may be more moderate, as those experiencing higher levels of burnout may choose to volunteer to complete the survey due to the impact of feeling fatigued. Generalization of the results is cautioned due to using a self-selected sample and ex-post facto design, which does not allow for the control of variables. In addition, this quantitative study's scope was deliberate in including behavior technicians from any public school district nationwide to enhance the potential generalization. As a result, recommendations will be provided to benefit other school districts, not just the one in which the researcher works.

Rationale and Significance

The rationale for this study was to address the current lack of literature by determining if there is a relationship between burnout and job satisfaction of behavior technicians in public school districts. Overall, school districts and school sites alike should better understand behavior technicians' needs. In addition, recommendations were devised to support school districts in retaining these individuals when high burnout levels and low job satisfaction were noted. Behavior technicians are invaluable in public school settings to support teachers and paraprofessionals who often attribute the managing of challenging behaviors to higher levels of burnout (Garwood et al., 2017; Hester et al., 2020; Oberle et al., 2020; Saloviita & Pakarinen, 2021). Since higher levels of burnout have been attributed to educator attrition, the retention of behavior technicians could be of significance for school districts to potentially lower levels of burnout experienced by teachers and paraprofessionals, resulting in increased job satisfaction (Madigan & Kim, 2021; Park & Shin, 2020; Sims, 2020).

Summary

The purpose of this quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technicians in public schools. Educators are leaving at high rates, and research has noted burnout's impact on the decision to leave the field (NCES, 2022; Park & Shin, 2020; Sims, 2020). Unfortunately, research is lacking in assessing burnout of behavior technicians in public schools who work directly with students that demonstrate challenging behavior, even though teachers and paraprofessionals alike indicate the difficulty and stress provoked when working with that specific population (Garwood et al., 2017; Hester et al., 2020; Saloviita & Pakarinen, 2021). Using Maslach and Jackson's (1981) burnout theory as a theoretical framework, the MBI-ES and MSQ were utilized to assess the relationship between burnout and job satisfaction (Maslach et al., 1996; Weiss et al., 1977). In addition, assessing behavior technicians that work in various school districts allowed for the generalization of recommendations to mitigate the factors of burnout and potentially improve retention. The following chapter presents a literature review of behavior technicians and the impacts of burnout in education.

CHAPTER 2: LITERATURE REVIEW

Educators that experience burnout are at greater risk for stress-related illnesses, including fatigue, depression, and substance abuse (Ansley et al., 2016; Hester et al., 2020; Williams & Dikes, 2015). In addition, students taught by individuals experiencing burnout have difficulty making progress in the school setting due to the impact on quality of instruction (Gilmour et al., 2022; Hester et al., 2020). The United States has been plagued with teacher and paraprofessional shortages, with an 8% annual attrition rate, and educators have attributed burnout as one of the main reasons for leaving the field (NCES, 2022; Park & Shin, 2020; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, the characteristics and factors related to burnout in education have long been of interest to researchers to inform the education community and potentially mitigate the educator shortage (Maslach et al., 1996; Park & Shin, 2020; Sims, 2020).

Maslach and Jackson (1981) initially defined burnout as an increased sense of emotional exhaustion, depersonalization, and decreased sense of personal accomplishment. The literature outlines job satisfaction, role conflict, administrative support, and self-efficacy as some of the main factors that impact burnout for educators (Ford et al., 2019; Hester et al., 2020; Novack & Dixon, 2019; Sims, 2020). Educators report that job satisfaction, defined as a pleasurable feeling that results from the perception that one's job fulfills or allows for the fulfillment of one's essential job values, is impacted by professional development, support, compensation, recognition, and personality factors (Bettini et al., 2016; Madigan & Kim, 2021; Noe et al., 2010; Sims, 2020; Skaalvik & Skaalvik, 2020). In addition, emotional well-being and a positive sense of self-efficacy have been demonstrated to positively impact job satisfaction and decrease burnout (Ford et al., 2019; Gaon, 2018; Saloviita & Pakarinen, 2021). Self-efficacy, initially defined by Bandura (1986) as an individual's assessment of their capabilities to complete a task

or action, has been associated with certain factors, such as self-kindness, mindfulness, and self-compassion (Gaon, 2018).

Another critical factor relating to educators' burnout is challenging student behavior (Hester et al., 2020; Saloviita & Pakarinen, 2021; Walker et al., 2017). Managing challenging behavior, defined by Powell et al. (2006) as behavior that impacts or risks impacting the learning environment or the ability of the student to engage appropriately with peers and adults, has been indicated to be stressful and disruptive to the learning environment (Hester et al., 2020). Up to 20% percent of general education students demonstrate challenging behaviors in the classroom (Simó-Pinatella et al., 2019). In addition, students with disabilities such as learning disabilities, autism spectrum disorder (ASD), and intellectual disabilities are more likely to engage in behaviors such as aggression, disruption, and self-injury (Akram et al., 2017; Ruddick et al., 2015; Simó-Pinatella et al., 2019). With the passing of the Individuals with Disabilities Act (IDEA) in 2004, students with disabilities are more likely to spend most of their time in a general education setting, and students with challenging behavior, with and without disabilities, are required to receive increasing levels of support. Due to general and special education professionals' struggles in addressing challenging behaviors, behavior technicians have been employed by school districts and private settings assigned to students with or at risk of disabilities (BACB, 2017).

Behavior technicians are most similar in education and pay to paraprofessionals but are provided training in data collection, strategies for preventing challenging behaviors, teaching, reinforcing appropriate skills, and intervening with challenging behaviors (BACB, 2017). Behavior technicians can acquire national accreditation through the behavior analysis certification board (BACB) as registered behavior technicians (RBTs). However, this is not

always required when employed through a school district (BACB, 2017). In addition, research on the impact of burnout on behavior technicians is lacking within the public school setting and addressing students without ASD (Novack & Dixon, 2019).

The literature review documents the impacts that managing challenging behavior can have on the factors related to burnout of teachers and paraprofessionals in public and private settings but is lacking when applied to the population whose sole responsibility is dealing with challenging behavior in public settings (Garwood et al., 2017; Hester et al., 2020; Novack & Dixon, 2019). Behavior technicians are critical in the public school setting as teachers identify dealing with student behavior as one of the most stressful components of their job, and paraprofessionals often lack knowledge in managing challenging behaviors (Hester et al., 2020; Wiggs et al., 2021). Over the past few decades, research informed the educational community on the impact of challenging behavior and burnout on teachers and paraprofessionals to mitigate attrition potentially (Hester et al., 2020; Maslach et al., 1996; Park & Shin, 2020; Sims, 2020). This study expands that narrative to behavior technicians working in public school settings to decrease burnout and increase job satisfaction.

This study sought to assess the impact of burnout on job satisfaction in understanding the potential effects on behavior technicians that work in public school settings. Research on this population is limited to home, community, or specialized private school settings with students with ASD (Novack & Dixon, 2019). Burnout has been associated with wishful-thinking coping, neuroticism, and negative implicit attitudes. Job satisfaction was associated with opportunities for advancement, recognition, training, schedule, and job responsibilities. Overall, supervisor support was critical in a positive sense of self-efficacy, increased job satisfaction, and decreased

burnout (Novack & Dixon, 2019). Expanding on the current literature is crucial in mediating burnout within this population.

This thematic literature review first reviews the impact of IDEA (2004) in public schools and the need created for behavior technicians within the public school setting. Then, it analyzes the role of behavior technicians in managing challenging behavior in public and private settings. Next, it synthesizes the characteristics of burnout and its impact on educators and behavior technicians in private settings. Due to the limited research on behavior technicians in public school settings, the literature review uses educators as a comparison for this study. The critical factors in the literature related to burnout, including role conflict, coping strategies, implicit bias, and neuroticism, are expanded upon. In addition, the impact of job satisfaction on burnout is explored. Next, a positive sense of self-efficacy is outlined concerning job satisfaction and burnout. Finally, the impact of managing challenging behavior on self-efficacy, job satisfaction, and burnout is explored, in addition to the prevalence of challenging behavior in the classroom. ProQuest was utilized throughout the literature review search, initially by searching for articles using the keywords of this study; behavior technicians, burnout, challenging behavior, job satisfaction, and MBI-ES. In addition, the snowball method was utilized with acquired articles by searching for relevant articles from the reference lists or finding additional articles that cited the acquired articles.

Conceptual and Theoretical Framework

The importance of retention in education guided this study's conceptual framework. The National Center for Education Statistics (NCES, 2022) reported that the national educator attrition rate in the United States is around 8% annually, equating to hundreds of thousands of educators leaving the field each year and exceeding like countries with a 3-4% attrition rate. In

addition, Steiner and Woo (2021) found that one in four teachers are considering leaving the field, and teacher preparation programs have seen a 35% decrease in qualified graduates, leaving a lack of applicants to fulfill vacancies (American Association of Colleges for Teacher Education [AACTE], 2022). As a result, educator vacancies strain school leaders to find coverage, and research has shifted to the factors that impact retention, which has reliably indicated burnout (Donley et al., 2019; Park & Shin, 2020; Sims, 2020).

Burnout has not only been identified as one of the main reasons for educators to leave the field, but it negatively impacts the quality of instruction provided to students (Gilmour et al., 2022; Park & Shin, 2020; Sims, 2020). As a result, students are not only struggling to make progress due to the vast number of educator vacancies but those educators that are still in the position have difficulty meeting the needs of the students because burnout negatively impacts the individual's health and wellness (Donley et al., 2019; Hester et al., 2020; NCES, 2022; Williams & Dikes, 2015). Additional demands on teachers and paraprofessionals, such as with the passing of IDEA in 2004, only put additional stress on these individuals with the potential of burnout (U.S. Department of Education, 2017). The IDEA (2004) not only required more students with disabilities to be taught in the least restrictive environment but also required educators to provide increasing levels of interventions to students demonstrating challenging behaviors within the classroom, both with and without disabilities. Consistently, teachers and paraprofessionals have linked managing challenging behaviors with burnout, often due to the lack of knowledge, training, and resources (Hester et al., 2020; Oberle et al., 2020; Owens et al., 2018; Saloviita & Pakarinen, 2021; Wiggs et al., 2021).

School districts have recently utilized behavior technicians trained explicitly in managing student behavior to decrease the demands and stress of challenging behavior and possibly

increase the retention of teachers and paraprofessionals (Novack & Dixon, 2019). Although research outlines the impact of managing challenging behaviors on an individual's feelings of burnout, research on burnout of behavior technicians is limited to home, community, or specialized private school settings only with students with ASD (Novack & Dixon, 2019). Retention of behavior technicians is critical to sustaining a decreased state of stress often experienced by teachers and paraprofessionals when managing challenging behaviors, potentially increasing retention of teachers and paraprofessionals and promoting positive student progress.

Theoretical Framework

Burnout theory, which guided the theoretical framework of this study, was first introduced by Freudenberger in 1974 and described burnout in the workplace as the impact of demands requiring energy, strength, and resources that result in exhaustion. He characterized burnout based on observations of his colleagues and personal experiences. Characteristics included physical symptoms such as exhaustion, fatigue, sleeplessness, shortness of breath, and behavioral signs such as frustration, anger, and cynicism. In addition, Freudenberger (1974) noted personality factors, "the dedicated and the committed" (p.161), and specific contexts, those requiring significant emotional work, empathy, personal involvement, and intrinsic motivation, as most likely to experience burnout. By contrast, Maslach and colleagues used a quantitative approach to define further and assess burnout (Maslach & Jackson, 1981; Maslach et al., 1996; Maslach et al., 2001).

Maslach and Jackson (1981) defined burnout as emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. Emotional exhaustion is when an individual can no longer give of themselves when emotional resources are depleted (Maslach & Jackson, 1981). Depersonalization occurs when individuals develop negative or cynical attitudes and

feelings about their clients (Maslach & Jackson, 1981). Finally, personal accomplishment refers to an individual's feelings of competence, success, or achievement regarding their work with clients (Maslach & Jackson, 1981). These three characteristics of burnout informed the development of the Maslach Burnout Inventory (MBI), which provide a tool to assess burnout in different population easily and is still the most utilized questionnaire to assess burnout (Heinemann & Heinemann, 2017; Maslach & Jackson, 1981). The MBI has since been adapted specifically for the field of education, known as the Maslach Burnout Inventory- Educators Survey (MBI-ES), due to the increased association of this specific population with burnout (Maslach et al., 1996). This study utilized the MBI-ES to assess burnout of behavior technicians in public schools to expand upon burnout research in education and address the research questions. In addition, since high levels of burnout have been correlated with a decreased level of job satisfaction in educators, this study also utilized the Minnesota Satisfaction Survey (MSQ) short form to address the research question and determine if that correlation exists with behavior technicians in public schools (Madigan & Kim, 2021; Saloviita & Pakarinen, 2021). The following literature review was conducted to inform the development of this study.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA, 2004) ensures a free and appropriate education, including special education and related services, to those with eligible disabilities. This law provides financial support for state and local school districts based on compliance with the regulation for those ages 3 through 21. Students suspected of having a disability that impacts them in the learning environment are entitled to an evaluation. In addition, an individual education plan is designed for those found eligible of having a disability that outlines the services and accommodations needed for the student to meet their goals. The

education and services outlined in the individual education plan must be provided in the least restrictive environment possible to meet the student's needs. The law also ensures that input is collected from both parent and child during the individual education plan process, and parents have a right to challenge through due process. IDEA (2004) regulations are also expanded to those from birth to age two, guiding early intervention services.

Another critical aspect of IDEA (2004) is that it not only outlines the rights of students already identified as having a disability but includes the need to integrate a response to intervention (RtI) model that encompasses a multi-tiered system of support (MTSS) for all students. RtI was included within IDEA (2004) to help schools delineate between students with disabilities and those whose academic or behavioral struggles can be alleviated using specific scientific-based general education interventions (U.S. Department of Education, 2017). The RtI model emphasizes early identification of students needing academic or behavioral support utilizing high-quality instruction and universal screenings (U.S. Department of Education, 2017). The MTSS model emphasizes increasing levels of scientific research-based intervention based on student needs, individual progress monitoring to determine effectiveness, and parental involvement. Most students will respond positively to effective tier one interventions emphasizing high-quality instruction, which teaches appropriate school behavior to students. However, a small portion of the student population will not respond solely to tier one interventions, requiring additional targeted small-group interventions designed for students, known as tier two. Tier three interventions are intensive and individualized to the student's behavioral needs after the student still struggles after receiving both tier one and two instruction (U.S. Department of Education, 2017).

A functional behavior assessment (FBA) and behavior intervention plan (BIP) is an intensive tier three intervention within MTSS and a requirement for special education students demonstrating behaviors that impede the learning of themselves or others (U.S. Department of Education, 2017). An FBA is conducted by a trained professional in challenging behavior, such as a psychologist, social worker, or behavior analyst. It includes operationally defined behaviors of concern and replacement behaviors, identification of events or situations that predict the occurrence or non-occurrence of challenging behaviors and identifying the function of the target behavior (Cooper et al., 2019). BIPs must include evidence-based strategies to prevent challenging behavior, teach and reinforce replacement skills, discontinue reinforcement of challenging behavior, and outline procedures for data collection (Cooper et al., 2019). School staff are held responsible for implementing these behavior intervention plans with fidelity and collecting progress monitoring data (U.S. Department of Education, 2017).

Impact of IDEA

Since the passing of IDEA in 2004, 60% of students with disabilities spend 80% of their day in a general education setting (U.S. Department of Education, 2015; 2017). Due to the increased demands on general education and special education teachers, paraprofessionals are now assuming additional roles, including collecting behavior data and managing student behavior (Wiggs et al., 2021). Paraprofessionals work under a certified teacher's supervision to provide instructional support (U.S. Department of Education, 2017). Wiggs et al. (2021) found that most paraprofessionals surveyed worked directly with those receiving special education or related services. In addition, 97.3% of those surveyed worked directly with students who displayed multiple disruptive type behaviors, including calling out, verbal aggression towards others or self, refusal, leaving assigned areas or classrooms, and physical aggression.

Unfortunately, 51.4% of those surveyed indicated that they had received zero hours of professional development over the past 12 months regarding behavior management (Wiggs et al., 2021).

Behavior-based training is the most requested professional development by paraprofessionals because they lack the knowledge and feedback on implementing behavior management strategies (Wiggs et al., 2021). When professional development is provided on specific behavior intervention plans, paraprofessionals still report difficulty with generalizing those skills to the classroom, especially when there is a lack of follow-up coaching (Walker et al., 2017). Due to the difficulty experienced by teachers and paraprofessionals in managing challenging behaviors, behavior technicians have been utilized to work directly with students and staff in implementing and modeling Behavior Intervention Plans (Novack & Dixon, 2019).

Behavior Technicians

In private settings, RBTs are nationally accredited through the BACB. They must complete a 40-hour training program, pass a competency assessment, and pass the RBT examination (BACB, 2017). To maintain certification, RBTs must receive ongoing supervision, adhere to the ethics code, and complete annual recertification, which includes a competency assessment and fees. RBTs are considered paraprofessional certified and are typically overseen by board certified analysts in the field of applied behavior analysis (ABA), providing therapy to individuals demonstrating challenging behavior, most typically associated with children diagnosed with ASD (BACB, 2017). Therapy includes specific ABA methods such as Discrete Trial Training (DTT) and Pivotal Response Training (PRT) to increase appropriate behavior, teach new skills, generalize behaviors to new people or settings, and reduce challenging behavior. DTT incorporates the repeated presentation of trials until mastery, with trials

encompassing the presentation of an antecedent stimulus to evoke a specific behavior, and the therapist provides a subsequent consequence based on the correct or incorrect response (Cooper et al., 2019). PRT is play-based and led by the child to teach functional communication and adaptive behavior skills (Cooper et al., 2019).

Behavior Technicians in School Settings

In school settings, behavior technicians are considered paraprofessionals that specialize in behavior. The required educational experience can range from a high-school diploma to a bachelor's degree, and the certification level can range from non-certified to RBTs (BACB, 2017). Behavior technicians in public school settings can be employed by the district, school, or contracted with private agencies by the district, school, or the student's family (BACB, 2017; Green Mountain Behavior Consulting, 2021; San Bernardino District, 2021; School District of Manatee County, 2018). Districts and schools can choose not to require certification, which negates the cost of acquiring and maintaining the RBT certification. In addition, school districts often lack qualified supervisors to provide the competency assessment annually and ongoing supervision (BACB, 2017; Traub et al., 2017). When districts or schools' contract with private agencies who bill insurance for services, individuals must be RBTs (BACB, 2017).

Expectations of behavior technicians in school districts, who do not require certification, are to collect data on student behaviors, follow specific behavior intervention plans and protocols, work effectively with teachers and paraprofessionals in modeling interventions, and maintain the physical ability to implement crisis management techniques (Green Mountain Behavior Consulting, 2021; San Bernardino District, 2021; School District of Manatee County, 2018). Unfortunately, research associated with behavior technicians regarding burnout is limited to RBTs in private settings (Dauster, 2017; Kazemi et al., 2015; Novack & Dixon, 2019). The

following literature on burnout synthesizes the impact in education and RBTs to demonstrate the potential impact on behavior technicians in public schools.

Burnout

Burnout occurs when individuals experience stress for long periods at work and is measured by increased feelings of emotional exhaustion, depersonalization, and a decreased feeling of personal accomplishment (Maslach & Jackson, 1981). Burnout causes individuals to withdraw from the working environment, both emotionally and cognitively, reducing their capacity to meet the needs of those that they serve (Maslach et al., 2001). In addition, burnout reduces one's commitment to their job and results in absenteeism, intention to leave, and turnover (Maslach et al., 2001). Burnout has been assessed across several human services fields to determine the characteristics of those settings that lead to higher burnout levels, including care workers, social services, criminal justice, and education. In education, burnout has been indicated as one of the main reasons for leaving the field (Park & Shin, 2020; Sims, 2020; Skaalvik & Skaalvik, 2020).

Burnout Among Educators

National attrition rates of educators have been consistently around 8% annually, which equates to hundreds of thousands of teachers leaving per year, compared to higher-achieving countries that lose between 3-4% (NCES, 2022). Teachers with less preparation, who work in high-poverty schools, and especially those who teach special education, are at greater risk for attrition (NCES, 2022). Teacher attrition puts stress on school systems to fill the vacancies and negatively impacts student progress (Donley et al., 2019). In addition, there was a 35% decrease in qualified teachers graduating from teacher preparation programs between 2009 and 2019 (AACTE, 2022). With the national shortage of teachers and paraprofessionals that has persisted

for decades and the lack of educators to fulfill the positions, the focus has shifted to the factors that impact burnout to mitigate attrition (Barnes et al., 2018; Donley et al., 2019; Madigan & Kim, 2021; Skaalvik & Skaalvik, 2020).

High levels of burnout have been correlated with decreased job satisfaction, self-efficacy, and relatedness to students (Madigan & Kim, 2021; Saloviita & Pakarinen, 2021). In addition, levels of burnout are impacted by role conflict, administrative support, and student characteristics (Barnes et al., 2018; Ford et al., 2019; Hester et al., 2020; Saloviita & Pakarinen, 2021). Experiencing burnout puts individuals at greater risk for ongoing health conditions and strains personal and family relationships (Ansley et al., 2016; Hester et al., 2020; Williams & Dikes, 2015). Several researchers have found that burnout negatively impacts the educator's ability to provide quality instruction to students (Ansley et al., 2016; Gilmour et al., 2022; Hester et al., 2020; Park & Shin, 2020). In addition, an increased level of burnout jeopardizes the social emotional support individuals can provide their students (Saloviita & Pakarinen, 2021). The following literature examines the relationship between burnout and several factors for educators and RBTs who have served those in home, clinic, and private school settings.

Role Conflict and Burnout

Role conflict can vary in definition depending on if referring to teachers or paraeducators, while some factors remain the same. For teachers, role conflict is attributed to stress, includes collaborating with other teachers and parents, time management, and working with paraeducators (Hester et al., 2020). Conflict with others made teachers feel less respected and devalued, making it more likely that they were considering leaving the field (Hester et al., 2020). For paraprofessionals, role conflict can occur when there is a lack of clarity with expectations, especially when supporting multiple students, teachers, and grades (Mason et al., 2020). In

addition, Ansley et al. (2016) determined that satisfaction with workplace relationships is directly correlated with overall job satisfaction. Kazemi et al. (2015) assessed RBTs and found that different aspects of their job, specifically relationships with co-workers, were highly correlated with turnover intention. Research suggests that role conflict may indicate a more significant problem of lack of administrative support who provides opportunities to develop positive working relationships (Ford et al., 2019; Hester et al., 2020; Schilling et al., 2017)

Administrative Support and Burnout

Lack of administrative support can be demonstrated by being unavailable, lacking understanding, denying access to resources, and dismissing student needs (Schilling et al., 2017). Researchers have shown that a lack of administrative support contributes to feelings of burnout and specifically increases the likelihood of attrition (Ford et al., 2019; Hester et al., 2020; Robinson et al., 2019). Ford et al. (2019) assessed teachers on types of administrative support. They found that a lack of interpersonal support, personal, and professional relationship with the principal led to an intent to leave the school. In contrast, a lack of intrapersonal support and principals' efforts to meet the teacher's needs, increased burnout and a desire to leave the profession (Ford et al., 2019). Hester et al. (2020) reported that special education teachers identified their principals and central office personnel as administrators who cause undue stress due to lacking resources, bureaucracy, and knowledge of special education needs. In addition, legal mandates that administrators must enforce, such as deadlines, policies, paperwork, assessments, and caseloads, all impacted the participant's indication that they wanted to leave the field (Hester et al., 2020). With behavior technicians in private settings, a lack of supervisor support resulted in higher levels of burnout and a reported increase in intent to leave (Kazemi et al., 2015). Lack of administrative support to build competency and self-efficacy of the educator

has also been found to be correlated with burnout (Ford et al., 2019; Saloviita & Pakarinen, 2021).

Self-Efficacy and Burnout

Self-efficacy is one's belief in their ability to execute necessary behaviors to attain specific types of performances (Bandura, 1986). Teachers with higher levels of burnout indicate inadequate support and lower rates of self-efficacy (Ford et al., 2019; Saloviita & Pakarinen, 2021). The ability of teachers to relate to their students, establish relationships, and manage the classroom and instruction has been shown to increase teacher self-efficacy (Saloviita & Pakarinen, 2021; Zee & Koomen, 2016). Teacher judgements about their capabilities are drastically impacted by the individual's mental health and well-being, demonstrating a critical need for stress management techniques to decrease stress-related illness and increase self-efficacy (Ansley et al., 2016). Brouwers and Tomic (2016) assessed teachers and paraprofessionals in residential settings for students with challenging behavior. They found that age and self-efficacy beliefs were explicitly correlated with personal accomplishment, one of the characteristics of burnout (Brouwers & Tomic, 2016). Gaon (2018) conducted a quantitative study with 145 teaching assistants that work with students with ASD. Self-kindness, mindfulness, and self-compassion positively impacted self-efficacy and negatively impacted burnout (Gaon, 2018). In addition, Garwood et al. (2017) interviewed a self-contained paraprofessional who served students with an emotional/behavioral disability (E/BD) and found that resiliency, emotional well-being, and self-awareness increased self-efficacy.

Job Satisfaction and Burnout

Low job satisfaction has been shown to decrease retention and increase shortages of educators (Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). Robinson et al.

(2019) found a statistically significant relationship between increased job satisfaction and decreased burnout in special education teachers. Due to the lack of available teachers to address the teacher shortage, researchers have focused on how to increase job satisfaction (Donley et al., 2019; Madigan & Kim, 2021; NCES, 2022). Job satisfaction is considered a pleasurable feeling that results from the perception that one's job fulfills or allows for the fulfillment of one's essential job values (Noe et al., 2010). Schreyer and Krause (2016) outlined job satisfaction in relation to identifying with the nature of the work, social experiences, security, compensation, and a sense of responsibility.

The literature has assessed general education teachers, special education teachers, and paraprofessionals on the determinants of job satisfaction and found professional development, administrative support, personal factors, and compensation and recognition as critical factors (Madigan & Kim, 2021; Robinson et al., 2019; Sims, 2020; Skaalvik & Skaalvik, 2020). Similar findings were found with RBTs, as Kazemi et al. (2015) found that pay, opportunities for advancement, and praise for doing an excellent job influenced job satisfaction within a clinical setting. Another critical finding was that training and supervision impacted job satisfaction (Kazemi et al., 2015). In addition, Dauster (2017) assessed RBTs working in home settings on intrinsic and extrinsic factors and improvements to the workplace. Results validated that pay, support, and training impacted job satisfaction but also found that schedule, benefits, life balance, and job responsibilities had an impact (Dauster, 2017).

Professional Development. In establishing the statistically significant relationship between job satisfaction and burnout, Robinson et al. (2019) found that meaningful professional development increased job satisfaction among special education teachers. For special education teachers, meaningful professional development must include program specific training and

evidence-based practices that teachers find beneficial for their environment (Robinson et al., 2019). According to Sims (2020), professional development for general education teachers should be assessed on the structure and design of opportunities offered and if teachers are trained in the subjects required to teach. Key components to effective professional development include a group of colleagues, opportunities for active learning, collaborative learning, and presented over several occasions (Sims, 2020). Sims (2020) also found that when teachers received formal or informal training in the subject to be taught, there was less of a desire to move schools. Kazemi et al. (2015) found that behavior technicians who worked in private ABA agencies reported an overall increase in job satisfaction when they received 30 or more hours of initial training. A critical component to effective professional development is an administrator willing to provide this to their staff (Ford et al., 2019).

Administrative Support. Higher levels of administrative support have been associated with educators wanting to stay in the field long-term and schools with lower attrition levels (Ford et al., 2019). Some positive administrative support factors include resource support, opportunities for professional development, and emotional support (Compton et al., 2015). Sims (2020) assessed over 2,000 teachers across 130 schools and found a statistically significant relationship between managerial support, increased job satisfaction, and a decreased desire to move schools. Bettini et al. (2016) completed a literature synthesis for special education teachers who serve students with E/BD in self-contained settings and found that administrative and collegial support is critical in job satisfaction. In addition, behavior technicians with supervisors who provided emotional and professional support, guidance, and performance feedback indicated higher rates of job satisfaction (Kazemi et al., 2015).

Personal Factors. Research has demonstrated that age, experience, and certification level all impact burnout and job satisfaction in educators (Brouwers & Tomic, 2016; Williams & Dikes, 2015). Brouwers and Tomic (2016) surveyed educational staff at a residential children's home and found that younger and less experienced staff had lower job satisfaction. Williams and Dikes (2015) assessed special education teachers and found that females and those nearing retirement had lower levels of job satisfaction. Hester et al. (2020) also assessed special education teachers and found that lack of family time and increased health risks decreased job satisfaction. Dauster (2017) found that behavior technicians who were able to acquire a work-life balance reported an increase in job satisfaction. Another factor that greatly impacted job satisfaction was compensation and recognition.

Compensation and Recognition. Sims (2020) indicated that a statistically significant relationship exists between the scope of progression and teacher job satisfaction. Sims (2020) also indicated that offering non-promotional forms of progression, such as professional development that led to accreditation, was favorable to respondents. In addition, received recognition was found to positively impact perceived teacher-working environment fit among special education teachers (Soini et al., 2019). Brown and Stanton-Chapman (2017) employed a mixed-methods approach with paraprofessionals and determined that compensation and recognition greatly impacted job satisfaction. They also indicated that paraprofessionals felt dissatisfied monetarily and non-monetarily, although their teacher supervisor counterparts indicated feelings of providing sufficient non-monetary compensation. This discrepancy was due to differing perceptions and opinions on the frequency of appreciation and recognition (Brown & Stanton-Chapman, 2017). Cymbal et al. (2021) found that behavior technicians that considered themselves well-compensated tended to report higher rates of job satisfaction.

Student Characteristics and Burnout

Students with specific disabilities have been shown to have the most significant impact on the symptoms of burnout in educators (Park & Shin, 2020; Saloviita & Pakarinen, 2021). Saloviita and Pakarinen (2021) found that teachers reported overall increases in the characteristics of burnout when supporting students with disabilities or intensive needs. Depersonalization, a characteristic of burnout, was found to correlate significantly with teaching students with disabilities (Saloviita & Pakarinen, 2021). Park and Shin (2020) found that student disability types, specifically those with emotional disorders, significantly impacted burnout, more specifically, depersonalization. Kelly and Barnes-Holmes (2013) assessed 16 RBTs working in an ABA school and found that an implicit bias toward ASD predicted burnout. In addition to specific student disabilities, managing students that demonstrate challenging behavior through behavior intervention has been indicated to be stressful, disruptive to the learning environment, and has led to burnout of teachers and paraprofessionals (Hester et al., 2020; Oberle et al., 2020; Owens et al., 2018; Park & Shin, 2020; Saloviita & Pakarinen, 2021).

Challenging Behaviors. Challenging behavior of students in the field of education is defined as any behavior impacts or risks impacting the learning environment or the ability of the student to engage appropriately with peers and adults (Powell et al., 2006). Owens et al. (2018) found that teachers only responded appropriately to students' challenging behaviors 27% to 47% of the time in the classroom. Due to the impact on the quality of instruction, burnout has been found to impact the ability of individuals to manage behaviors negatively; as a result, students that demonstrate challenging behavior are more likely to struggle emotionally, behaviorally, and socially (Gilmour et al., 2022; Oberle et al., 2020). Fabiano et al. (2013) indicated a 12% to 20% prevalence of students' inattention, impulsivity, and non-compliance behaviors in the general

population. Challenging behaviors, such as aggression, self-injury, property destruction, and disruptive behavior, are more frequently associated with students with disabilities, such as E/BD, specific learning disabilities, intellectual disabilities, and ASD (Akram et al., 2017; Pavlović et al., 2013; Ruddick et al., 2015; Simó-Pinatella et al., 2019).

Types of Challenging Behavior. Challenging behaviors for students are defined based on the form and functionality demonstrated by the individual student to be precise, objective, and measurable (Cooper et al., 2019). Cooper et al. (2019) provided the following guidance for the categories of challenging behaviors. Behaviors characterized as self-injurious include head banging, biting self, and hitting self, as these cause harm to the individual's body. Aggressive behaviors include hitting, kicking, pushing, and biting toward others, such as adults or peers. Property destruction could include behaviors such as smashing or breaking equipment or furniture. Disruptive behaviors include swearing, calling out, screaming, and tantrums. Non-compliant behaviors are often defined as the student refusing to follow teacher directives. Inattentive behaviors include staring off, moving around in a chair or out of the chair, and fidgeting with items inappropriately. Finally, impulsive behaviors include any behaviors that happen quickly without considering the potential consequences (Cooper et al., 2019). Although behavior technicians have been critical in addressing the needs of working with students with challenging behavior in public settings, the research on the impact of burnout and job satisfaction with this population is lacking.

Summary

Examining the impact of burnout and job satisfaction and the management of challenging behavior by teachers, paraprofessionals, and behavior technicians in private settings was critical to understanding the potential effects on behavior technicians working in public school settings.

In general education teachers, special education teachers, and paraprofessionals, burnout was found to correlate with role conflict, self-efficacy, administrative support, and specific student disabilities (Ford et al., 2019; Hester et al., 2020; Park & Shin, 2020; Saloviita & Pakarinen, 2021). Working with students with disabilities that are most associated with challenging behaviors, such as E/BD and ASD, resulted in a higher level of burnout among teachers and paraprofessionals (Park & Shin, 2020; Saloviita & Pakarinen, 2021). Job satisfaction was found to have a statistically significant relationship with burnout across teachers and paraprofessionals (Madigan & Kim, 2021; Robinson et al., 2019; Sims, 2020). Job satisfaction was impacted by compensation, recognition, professional development, personal factors, and support (Brouwers & Tomic, 2016; Robinson et al., 2019; Sims, 2020; Soini et al., 2019).

Brouwers and Tomic (2016) found that an increased sense of personal accomplishment, an essential component of burnout, was correlated with self-efficacy. For a teacher to establish a positive sense of self-efficacy regarding behavior, the teacher needs to feel capable of handling challenging behavior, establish positive relationships with the students, and implement effective classroom management procedures (Zee & Koomen, 2016). Students with challenging behaviors are prevalent in general and special education classrooms (Fabiano et al., 2013; U.S. Department of Education, 2017). Paraprofessionals assumed roles typically established for teachers due to increased demands, including managing student behaviors, although they often lack the knowledge or ability to do so (Wiggs et al., 2021). Behavior technicians have been utilized in public and private settings to address the need for staff with specific training in addressing challenging behavior (BACB, 2017).

Literature on behavior technicians is limited to working with students with ASD in home, clinic, and specialized private school settings. Within those settings, supervisor support, wishful-

thinking coping, neuroticism, and negative implicit attitudes toward students with ASD were correlated to burnout (Novack & Dixon, 2019). Job satisfaction was impacted by pay, support, training, opportunities for advancement, and praise for doing a good job (Dauster, 2017; Kazemi et al., 2015). The studies examined in this literature review guide the need to research the current problem further and assess the gap in the literature.

This study aimed to assess the correlation of burnout with job satisfaction of behavior technicians in public school settings. The use of behavior technicians to manage challenging behavior in public school settings was determined based on the struggles identified by teachers and paraprofessionals. Unfortunately, the literature is limited on the impact of behavior technicians' job responsibilities on their level of burnout and job satisfaction (Novack & Dixon, 2019). The following chapter will highlight the methodology utilized to address the research questions.

CHAPTER 3: METHODOLOGY

With a consistent national educator attrition rate of 8% annually, researchers have sought to identify factors related to educators leaving the field, and burnout has been identified as one of the leading reasons (NCES, 2022; Park & Shin, 2020; Sims, 2020). Burnout impacts the personal wellness of the educator as well as impedes the individual's ability to provide quality instruction to students (Ansley et al., 2016; Hester et al., 2020; Park & Shin, 2020). In addition, teachers and paraprofessionals have identified managing challenging behaviors as stressful (Garwood et al., 2017; Hester et al., 2020; Novack & Dixon, 2019). As a result, districts have started utilizing behavior technicians trained explicitly in managing children's challenging behaviors (BACB, 2017). Unfortunately, behavior technicians have only been assessed for burnout and job satisfaction in the home, clinic, or private school settings (Novack & Dixon, 2019). The problem studied was the need to ensure that the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that have resulted in high rates of attrition do not also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). The purpose of this quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technicians in public schools utilizing the following research question and hypotheses:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

A correlational design through quantitative data collection was used to answer the research question. A quantitative method allows the researcher to analyze the collected data to draw conclusions utilizing statistics (Patten & Newhart, 2018). The correlational design allows the researcher to determine the degree, strength, and type of relationship between two or more variables (Bloomfield & Fisher, 2019). The study utilized the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach et al., 1996) and the Minnesota Satisfaction Questionnaire (MSQ) short form (Weiss et al., 1977) to acquire quantitative data to assess the relationship between the level of burnout and factors of job satisfaction of behavior technicians that work in public school settings. According to McMillan and Schumacher (2014), doctorate students often use survey research as it is a quick, low-cost, efficient, and easy way to determine people's attitudes, beliefs, values, demographics, and behaviors. Therefore, a survey design was appropriate as it allowed for a sample of the population to be assessed on their attitudes or opinions and produced a numeric description of trends (Creswell & Poth, 2018).

The conceptual framework of this research study was guided by retention. Using a correlational survey design allowed the researcher to determine if burnout predicts job satisfaction of behavior technicians in public schools to inform stakeholders (Bloomfield & Fisher, 2019). Educator vacancies have been shown to strain schools to find coverage, and research indicates burnout is one of the leading causes of attrition (Donley et al., 2019; Park & Shin, 2020; Sims, 2020). As defined by Maslach and Jackson (1981), burnout theory outlines an individual experiencing increased levels of emotional exhaustion and depersonalization while

having a decreased sense of personal accomplishment. The utilization of the MBI-ES (Maslach et al., 1996) within this study provided the opportunity to easily assess the three characteristics of burnout within this population. In conjunction with the MSQ short form (Weiss et al., 1977) short form to assess job satisfaction, this research study determined if there was a relationship between burnout and job satisfaction to mitigate attrition of behavior technicians in public schools potentially.

Site Information and Demographics

This study identified behavior technicians that provide services within a public school setting serving students from pre-kindergarten to 12th grade. Participants served students of all populations within a public school setting in the United States, including those with and without disabilities and within a general or special education classroom. The researcher utilized the social media group School-Based ABA with 18,400 members on Facebook to locate and recruit participants within the United States. This group contains several different types of members, such as students of applied behavior analysis (ABA), parents, teachers, behavior analysts, and registered behavior technicians (RBTs), resulting in a much smaller portion of the total members potentially meeting the criteria for the study. The members of this group were made aware of the research study through recruitment postings (Appendix A) which had received permission from the administrators of School-Based ABA (Appendix B) that they adhered to the group's stated rules (Appendix C). In addition, members of the Facebook group and participants were encouraged to share the posting with other behavior technicians they might know.

Participants and Sampling Method

This study utilized a purposeful sampling method to include behavior technicians who work in public schools. Purposeful sampling “assumes that the investigator wants to discover,

understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam & Tisdell, 2016, p. 95). Since this research study addressed the specific population of behavior technicians who work in public schools, purposive sampling lends itself to ensuring participants met the setting and job requirements. Based on a G*Power sample size calculator for multiple linear regression analysis with an effect size of .15, an alpha level of .05, a minimum power of .80, and three predictors, the minimum sample size needed was 77 participants (Appendix D).

To qualify as a participant, behavior technicians were 18 years or older. They worked full-time within a public school setting either hired by the district or local ABA company for at least six months. Behavior technicians also include RBTs or any other job title that perform the following job requirements:

- Assist teachers in the supervision of student(s) presently being served by the case supervisor, BCBA, behavior support team, etcetera.
- Works primarily one-on-one or with a small group of students
- Assists in the implementation of behavior intervention plans
- Monitors responsiveness to behavior intervention plans
- Assists in the data collection of students behaviors
- Implements crisis management protocols
- If applicable, conduct services based on the student’s IEP.

For this study, a behavior intervention plan (BIP) includes intervention strategies that relate to the function determined in the functional behavior assessment (FBA), including preventative, educational, and reinforcement strategies (Cooper et al., 2019). In addition, crisis management protocols include specific interventions outlined when a student’s behaviors

escalate to a point that requires immediate attention to protect the physical safety of the student, teachers, and others (Cooper et al., 2019). Only those behavior technicians who voluntarily completed the survey and met the setting and job requirements were included in this study.

Instrumentation and Data Collection

This quantitative correlational study allowed the researcher to assess burnout and job satisfaction of behavior technicians in public school settings and to determine if there was a relationship between the variables. This study utilized one online survey, using REDCap as the hosting site, consisting of three components combined for participants to complete, which was sent via the social media group with directions about how and when to complete the survey (Appendix A). After the initial posting, three additional postings were utilized over eight weeks to acquire the required participants. The first component was the MBI-ES (Appendix E; Maslach et al., 1996), which measured the participant's perceptions of burnout. The Maslach Burnout Inventory (MBI) is the most utilized questionnaire to assess burnout and is frequently combined with other survey instruments using online survey platforms in research (Barnes et al., 2018; Brouwers & Tomic, 2016; Dauster, 2017; Heinemann & Heinemann, 2017). The survey consisted of 22 items using a six-point Likert-type scale that produced ratings for each item and three scale scores for the characteristics of burnout: emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 1996). This survey tool required a remote online survey license for each survey administered due to attempting to meet at least the minimum sample size and cost efficiency; 100 licenses were acquired (Appendix F). With acquiring the remote online survey license, the researcher agreed to and ensured adherence to the terms of use (Appendix F), which included putting the copyright statement on every page containing questions specifically from the MBI-ES. In addition, survey administrators are required to avoid

the sensitization to burnout, so participants were unaware that the MBI-ES is a burnout measure, and the term survey of job-related attitudes was utilized (Appendix G). As a result, the name of the study was not included in the social media posting (Appendix A) and the participant information sheet (Appendix R) when presented to participants. In addition, when referring to burnout, the terms job-related issues were utilized, and the acronym MBI-ES Assessment was used to replace the name of the entire survey instrument on the social media posting (Appendix A) and participant information sheet (Appendix R). A debriefing form was utilized once the survey was completed outlining burnout and the use of the MBI, to which the participant then indicated if they agreed to participate for their results to be utilized (Appendix H). The researcher acquired written clarification from Mind Garden to ensure the utilization of the MBI-ES based on the nature of the study (Appendix I).

The second component comprised the MSQ short form to assess job satisfaction factors (Appendix J; Weiss et al., 1977). The survey consists of 20 questions using a five-point Likert-type scale resulting in a general satisfaction score and two sub-scale scores for extrinsic and intrinsic satisfaction. Extrinsic satisfaction refers to factors related to the facility or organization that impact the individual's satisfaction. Questions within this sub-scale include those related to the supervisor's competency, company policies, pay, and opportunities for advancement. Intrinsic satisfaction refers to factors under the individual's control, such as doing things for others, keeping busy, steady employment, and feeling accomplished (Weiss et al., 1977). Vocational Psychology Research of the University of Minnesota no longer sells the use of the survey. Instead, it allows this instrument to be shared and adapted free of charge for research under adherence to the agreed upon creative commons license (Appendix K-M; Creative Commons, 2022; University of Minnesota, 2022). The researcher acquired written clarification

from Creative Commons to ensure the utilization of the MSQ short form based on the nature of the study (Appendix N). The third component included the demographic section to gather information about the participants and their employment (Appendix O). The demographic information gathered includes age, gender identity, ethnicity, degree, job title, state-employed, length of time working as a behavior technician, and if an RBT.

This survey was placed on REDCap to be accessed by the participants via a single link within the social media group post. When participants completed the survey, the researcher was immediately notified and could access the results. Once the eight weeks had lapsed and had reached the minimum number of participants, the link was deactivated.

Data Analysis

This quantitative correlational study started by the researcher scoring the MBI-ES and MSQ short form according to the keys provided (Appendix P-Q). The MBI-ES produced three scores across the sub-scales of emotional exhaustion, depersonalization, and personal accomplishment. A high degree of burnout was noted, with high scores in emotional exhaustion and depersonalization and low scores in personal accomplishment. A low degree of burnout was noted, with low scores in emotional exhaustion and depersonalization and high scores in personal accomplishment. The MBI-ES does not produce a single test score, so each participant had three scores computed based on the three characteristics of burnout. The MSQ short form (Weiss et al., 1977) produced a scale score for general satisfaction based on responses to all the survey items and two sub-scales for extrinsic and intrinsic satisfaction. A high level of job satisfaction would be indicated with a higher scale score, and a low level of job satisfaction would be indicated with a lower scale score. Three scores were computed for each participant.

The researcher utilized Statistical Package for the Social Sciences (SPSS) to calculate descriptive statistics for both the MBI-ES and MSQ short form to describe the data set by reporting on range, mean, standard deviation, skewness, and kurtosis. In addition, Cronbach's alpha was calculated to measure the reliability of each survey tool. Cronbach alpha calculates the internal consistency of the survey tools to determine how closely they are related to each other to ensure they are measuring the same construct (Cronbach, 1951). Next, a Pearson correlation coefficient was conducted for each sub-scale of the MBI-ES in relation to each scale of the MSQ to determine the strength and direction of the linear relationship. Finally, the demographic data were analyzed using response frequency to provide context regarding the participants.

To conduct the correlational analysis, the researcher used SPSS to perform a multiple linear regression to compare the MBI-ES and MSQ short form results. Linear Regression "is a statistical procedure used to determine the equation of a regression line to a set of data points and to determine the extent to which the regression equation can be used to predict values of one factor, given known values of a second factor in a population" (Privitera, 2020, p. 251). Using linear regression, the researcher detected if burnout predicts low job satisfaction. This statistical analysis allowed the researcher to assess the three sub-scales of burnout: emotional exhaustion, depersonalization, and personal accomplishment effects on general, intrinsic, and extrinsic job satisfaction factors. This not only allowed the researcher to determine if burnout predicted low job satisfaction but determined which factors have the most significant impact. The terms of use for both survey tools allowed for this cross-analysis (Appendix F, K, L, M).

Limitations, Delimitations, and Ethical Issues

A limitation is any potential weakness the researcher identifies, which can impact validity and generalizability but also allow others a basis to expand or replicate (Creswell & Guetterman,

2019). Delimitations are identified to understand the constraints of the research scope (Ellis & Levy, 2009). Ethical issues are considered per the Belmont principles (Department of Health, Education, and Welfare, 1978). The researcher has outlined this study's limitations, delimitations, and ethical issues.

Limitations

Due to the use of self-report surveys, a limitation of this study included the potential impact based on the type of day the participant was having and if the participants rushed through the completion of the survey. In addition, the study's results may be more moderate, as those experiencing higher burnout levels may choose not to volunteer to complete the survey due to the impact of feeling fatigued. A limitation of using correlation in this study is that only an association can be determined between the variables and not a causal relationship. Also, using a correlational study limits the generalizability of the results to the specific group of behavior technicians who work in public schools.

Delimitations

Delimitations of the study are related to the limited scope of the research on behavior technicians in public schools and relied solely on survey questions. The lack of open-ended questions or the ability to ask follow-up questions negated the ability of the researcher to discover other or new themes. Since research on burnout and job satisfaction in public education is limited, the researcher chose to focus on a quantitative approach for the initial research on the specific population. However, future research may want to consider a qualitative or mixed approach and target the population compared to other settings.

Ethical Issues

When considering ethical issues, the Belmont principles outline the need to ensure respect for persons, beneficence, and justice (Department of Health, Education, and Welfare, 1978). Respect for persons outlines the need to ensure participants have autonomy, and those incapable of self-determination require protection (Department of Health, Education, and Welfare, 1978). The participant information sheet was on the first page of the online survey (Appendix R). Participants must have read and determined if they agreed to complete the survey with the terms outlined. Due to the use of deception, per the note to survey administrators of the MBI-ES (Appendix G), the participant information sheet did not include the title of the project, the term burnout, or that the MBI-ES assesses burnout. A debriefing form (Appendix H) was utilized once the survey was completed to clarify that the study assessed burnout using the MBI-ES, and participants were then required to agree to participate for their completed surveys to be utilized.

Due to the internet-based survey, the researcher relied on the participant to be honest when self-reporting that they were over 18 years of age and could complete the survey. Participants who did not meet the minimum requirement were excluded from the survey results. Beneficence refers to doing no harm, maximizing the benefits, and minimizing harm for participants (Department of Health, Education, and Welfare, 1978). Unfortunately, there was a minimal risk of asking participants to complete the MBI-ES and MSQ due to potentially exacerbating the feelings of burnout or low job satisfaction with reflection. In addition, deception regarding the study assessing burnout using the MBI-ES could have impacted participants agreeing to participate once the debriefing form was reviewed. To minimize risk, the survey participants remained anonymous. Even if they chose to participate at first, they could decline to

answer any questions within the survey and decline to participate after reviewing the debriefing form. Justice is the final Belmont principle and outlines the need for the protection of research on vulnerable populations; the researcher only targeted normal and healthy adults based on the participant requirements (Department of Health, Education, and Welfare, 1978).

To maintain the confidentiality of data, raw data were stored using REDCap and then downloaded to a password protected personal computer to which the researcher only had access, and a numerical identifier was utilized for each participant. Once the retention period for the data has been met, the data will be disposed of per the Belmont principles (Department of Health, Education, and Welfare, 1978). Approval from the University of New England Institutional Review Board was attained before the commencement of the research (Appendix S)

Trustworthiness

To establish trustworthiness in quantitative research, the researcher established credibility, transferability, validity, and confirmability (Lincoln & Guba, 1985). Credibility refers to maintaining internal validity or limiting confounding variables (Heffner, 2018). Transferability establishes the generalizability of the results due to external validity (Trochim, 2019). Validity entails providing the same results by establishing reliability (Trochim, 2019). Finally, confirmability ensures the researcher is objective and lessens bias (Payne & Payne, 2004). The researcher has outlined the factors of trustworthiness for this study.

Credibility

To maintain credibility, the researcher adhered to the study protocols outlined in this study to limit the threats to internal validity. In addition, the MBI-ES has been demonstrated as a reliable and valid tool for assessing educators' burnout characteristics (Maslach et al., 1996). The MSQ short form has also been demonstrated as reliable and valid for assessing the factors of job

satisfaction (Weiss et al., 1977). The researcher adhered to the strict guidelines outlined in terms of use for both surveys and analyzed the data based on the scoring guides provided by the creator to ensure ease of replication.

Transferability

To establish transferability, the job and setting requirements of the participants were strictly followed to ensure the generalizability of the results to the larger population of behavior technicians working in public schools. In addition, recruiting behavior technicians across 12 states using the School-Based ABA Facebook group allowed the sample population to be more representative of the larger population to establish external validity. Finally, 78 participants were included in this study, meeting the minimum sample size needed to identify a statistically significant difference based on a G*Power sample size calculator for multiple linear regression analysis (Appendix D).

Validity

To maintain validity, the researcher conducted a Cronbach's alpha to ensure the reliability of the MBI-ES and MSQ short form completed by the participants. For each sub-scale of the MBI-ES, emotional exhaustion was $\alpha = .96$, depersonalization was $\alpha = .83$, and personal accomplishment was $\alpha = .77$. For the MSQ, Cronbach's alpha for the general was $\alpha = .92$, extrinsic was $\alpha = .87$, and intrinsic was $\alpha = .88$. Results indicate high internal consistency across the survey instruments.

Confirmability

Finally, to ensure confirmability, the participants remained anonymous from the researcher to lessen bias and present only the facts produced from the data analysis to ensure objectivity. Although the researcher published the post to the School-Based ABA Facebook

group under their name and participants were given the researcher's contact information, all survey responses were anonymous. The researcher was notified when a survey was completed, but no identifying information was collected, and each participant was given a numerical identifier. This allowed the researcher to remain distanced from the participants and lessened bias.

Summary

The purpose of this quantitative correlational study was to examine the relationship between job satisfaction factors and the level of burnout of behavior technicians in public schools. The researcher utilized a three-component online survey of the MBI-ES, MSQ short form, and demographic questions sent through a social media platform. The participants of this study worked full-time for at least the past six months in a public school setting, in addition to meeting the specified job requirements. The MBI-ES and MSQ short form were scored using the provided scoring rubrics, and Cronbach's alpha was calculated to ensure reliability. A correlational analysis was conducted using multiple linear regression to determine if there was a relationship between burnout and job satisfaction of behavior technicians in public schools and which factors had the most significant impact.

CHAPTER 4: RESULTS

The purpose of this quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technicians in public schools. In addition, this study could provide school districts and school sites with a better understanding of the needs of behavior technicians, potentially leading to the retention of behavior technicians. As a result, keeping the support of behavior technicians in schools could potentially lead to more support provided to students, teachers, and paraprofessionals.

To determine the relationship between burnout and job satisfaction, this researcher sought to answer the following research question and associated hypotheses:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

This study utilized a quantitative correlational design to answer the research question. A quantitative methodology allows researchers to conclude using statistics to analyze the collected data (Patten & Newhart, 2018). In addition, the correlational design allows researchers to determine the degree, strength, and type of relationship between two or more variables (Bloomfield & Fisher, 2019).

This quantitative correlational study utilized the Maslach Burnout Inventory – Educators Survey (MBI-ES; Maslach et al., 1996) and the Minnesota Satisfaction Questionnaire (MSQ) short form (Weiss et al., 1977) to acquire data to assess the relationship between the level of burnout and factors of job satisfaction of behavior technicians that work in public school settings. The MBI-ES is a reliable and valid tool for assessing educators' burnout characteristics (Maslach et al., 1996). A Cronbach's alpha was calculated for internal consistency and found $\alpha = .90$ for emotional exhaustion, $\alpha = .76$ for depersonalization, and $\alpha = .76$ for personal accomplishment (Maslach et al., 1996). In addition, the MSQ short form has also been demonstrated as reliable and valid for assessing job satisfaction factors with a Cronbach alpha of $\alpha = .87$ (Weiss et al., 1977). This survey was placed on REDCap to be accessed by the participants, and then all survey results were downloaded to SPSS for analysis.

Since the research study addressed the specific population of behavior technicians who work in public schools, this study utilized purposive sampling as it lent itself to ensuring participants met the setting and job requirements (Merriam & Tisdell, 2016). This study met the minimum sample size needed based on the G*Power sample size calculator for multiple linear regression analysis with an effect size of .15, an alpha level of .05, a minimum power of .80, and three predictors by including 78 participants (Appendix D). Behavior technicians across the country were invited to complete the survey who were 18 years or older and worked full-time within a public school setting either hired by the district or local ABA company for at least six months. All participants met the minimum requirements, and only five surveys were eliminated due to incomplete survey responses.

Members of the social media group School-Based ABA on Facebook, which consists of 18,400 members, were made aware of the research study through postings over eight weeks

(Appendix A), which had received permission from the group administrators (Appendix B). Members of the Facebook group and participants were encouraged to share the posting with other behavior technicians they might know. The survey link was activated and initially posted on December 13th, 2022. When participants clicked on the link, the Participant Information Sheet was on the first page of the online survey (Appendix R), the MBI-ES (Appendix E; Maslach et al., 1996) was on the second page, the MSQ short form (Appendix J; Weiss et al., 1977) was on the third page, followed by the demographic questionnaire (Appendix O). Finally, a debriefing form (Appendix H) was the final page. Due to the use of deception, per the note to survey administrators of the MBI-ES (Appendix G), a debriefing form (Appendix H) was utilized once the survey was completed to clarify the study. Subsequent posts were made on December 27th, 2022, January 15th, 2023, and January 29th, 2023. The survey link was deactivated after eight weeks on February 7th, 2023, as the minimum number of participants had been met.

Analysis Method

This quantitative correlational study utilized the Statistical Package for the Social Sciences (SPSS) for all analyses in this study. The researcher started by scoring the MBI-ES and MSQ short form according to the keys provided (Appendix P-Q). The MBI-ES consists of 22 items, producing three scores across the sub-scales of emotional exhaustion, depersonalization, and personal accomplishment for each participant. Emotional exhaustion consists of survey items 1, 2, 3, 6, 8, 13, 14, 16, and 20. Depersonalization consists of survey items 5, 10, 11, 15, and 22. Personal accomplishment consists of survey items 4, 7, 9, 12, 17, 18, 19, and 21. The three sub-scales were determined by calculating the mean of the survey items within each scale; scores can range from 0-6. A high degree of burnout was noted, with high scores in emotional exhaustion and depersonalization and low scores in personal accomplishment. A low degree of burnout was

noted, with low scores in emotional exhaustion and depersonalization and high scores in personal accomplishment.

The MSQ short form (Weiss et al., 1977) consists of 20 items that produced a scale score for general satisfaction based on responses to all the survey items and two sub-scales for extrinsic and intrinsic satisfaction. General satisfaction was determined by calculating the sum of all survey items, with a score range of 20-100. Extrinsic satisfaction was determined by calculating the sum of survey items 5, 6, 12, 13, 14, and 19, with a score range of 6-30. Intrinsic satisfaction was determined by calculating the sum of survey items 1, 2, 3, 4, 7, 8, 9, 10, 11, 15, 16, and 20, with a score range of 14-70. A high level of job satisfaction would be indicated with a higher scale score, while a low level of job satisfaction would be indicated with a lower scale score. The demographic data were analyzed using descriptive statistics to calculate the frequency and percentage of responses for each question.

To determine if a statistically significant relationship existed between each sub-scale of the MBI-ES (emotional exhaustion, depersonalization, and emotional exhaustion) and the three scores of the MSQ (general, intrinsic, and extrinsic), a multiple linear regression was run using SPSS. Before completing the multiple linear regression, Cronbach's alpha was calculated for both the MBI-ES and MSQ to ensure the reliability of the scales. Next, descriptive statistics were conducted to describe the data set by reporting on range, mean, standard deviation, skewness, and kurtosis. Finally, a Pearson correlation coefficient was conducted for each sub-scale of the MBI-ES in relation to each scale of the MSQ to determine the strength and direction of the linear relationship.

Assumptions of Multiple Linear Regression

Before utilizing a multiple linear regression, eight assumptions had to be met. The first assumption is that there was a continuous dependent variable, which was met as the sub-scale scores for the MSQ are considered interval data. The second assumption is that two or more independent variables were either continuous or categorical, which was met as the sub-scale scores of the MBI-ES are considered interval data. The third assumption is to demonstrate the independence of residuals, verified by conducting a Durbin-Watson statistic for each score of the MSQ compared to the three scales of the MBI-ES. The Durbin Watson for the MSQ General scale was 1.63, the MSQ Extrinsic sub-test was 2.17, and MSQ Intrinsic was 1.65 (Appendix T). Since scores were close to two, the results indicate no correlation between residuals. The fourth assumption is that there must be a linear relationship between the dependent variable and each independent variable, as well as the dependent and independent variables collectively. The researcher inspected the scatter plots of studentized residuals against the unstandardized predicted values and partial regression plots and found a linear relationship between each MSQ score and each MBI-ES sub-scale (Appendix U and V).

The fifth assumption is that the data variance along the line of best fit remains similar as you move along the line, known as homoscedasticity. Homoscedasticity was verified by visually examining a plot of studentized residuals versus unstandardized predicted values (Appendix U). The sixth assumption is that two or more independent variables cannot be highly correlated, known as multicollinearity. The Pearson correlation coefficients were consulted, and there was a statistically significant correlation of $r = .76$ between two independent variables: depersonalization and emotional exhaustion (Appendix W). Fortunately, when the Variance Inflation Factors (VIF) were consulted, results showed VIFs of 2.37 for emotional exhaustion,

3.04 for depersonalization, and 1.88 for personal accomplishment, indicating no issues with multicollinearity (Appendix W).

The seventh assumption is that no significant outliers, high-leverage points, or highly influential points should exist. Outliers are those points that have residual scores ± 3 . In running a case-wise diagnostic within the multiple regression for the MSQ Intrinsic scale, participant 10 had a standardized residual of 3.28 (Appendix X). Also, while inspecting the studentized deleted residuals, participant 6 had a -3.29, participant 10 had a 3.70 for the MSQ Intrinsic scale, and participant 29 had a 3.24 for the MSQ Extrinsic scale. When reviewing the leverage points, all values are at or below .13, with a score below 2 to be considered safe (Appendix X). To assess if there were highly influential points, Cook's Distance values were reviewed, and all were at or below .27, with a score below one considered not highly influential (Appendix X). The three outlier scores were not removed since the leverage points and Cook's Distance values were acceptable. Finally, the eighth assumption is that the residuals are approximately normally distributed (Appendix Y). The P-P Plot graphs were visually inspected and showed an approximately normal distribution. Since all eight assumptions were met, the researcher could proceed with analyzing the results of the multiple linear regression.

Presentation of Results and Findings

A total of 83 participants participated in the survey. However, five did not complete the entire MBI-ES or MSQ survey. Therefore, the final sample consisted of $N = 78$, which exceeded the minimum requirement of $n = 77$ participants based on the G*Power calculation (Appendix D). All participants answered the demographic questions for age, job title, and state they work in, but some participants did not answer all demographic questions.

Demographics

All participants indicated that they were 18 or older, so none of the participants had to be excluded for this factor. Table 1 indicates the age groups according to the frequency and percentage of participants within the study. The age group with the most participants was 33-40, with 35.9% ($n = 28$) for this survey.

Table 1

Age Range of Participants

Age Group	N	%
18-25	3	3.8%
26-32	19	24.4%
33-40	28	35.9%
41-47	18	23.1%
48-55	6	7.7%
55+	4	5.1%
Total	78	100%

As for gender, all participants were given gender options and a write-in option, with only one participant choosing not to respond. Of the participants, 26.9% ($n = 21$) were male, and 71.8% ($n = 56$) were female. As for ethnicity, participants were given options, and two chose not to respond. Table 2 represents the ethnicity breakdown of the participants, with 47.4% ($n = 37$) indicating they were White, which comprised the highest percentage of participants. Two participants chose not to respond. Participants were asked how long they had been a behavior technician. Table 3 represents participant responses, with the highest percentage of 34.65% ($n =$

27) being those that have worked for 1-2 years. Five participants chose not to respond to this question.

Table 2

Ethnicity of Participants

Ethnicity Group	N	%
White	37	47.4%
Black or African America	22	28.2%
Asian	3	3.8%
Two or more races	14	17.9%
Missing	2	2.6%
Total	78	100%

Table 3

Months/Years as a Behavior Technician

Months/Years	N	%
6-12 months	6	7.7%
1-2 years	27	34.6%
3-5 years	17	21.8%
5+ years	23	29.5%
Missing	5	6.4%
Total	78	100%

Table 4 represents participant responses regarding job title; 65.4% ($n = 51$) indicated they were behavior technicians making up the highest percentage, and 21.8% ($n = 17$) indicated they were RBTs. One participant chose not to respond. Next, participants were asked if they were certified as RBTs. Of the participants, 69.2% ($n = 54$) indicated they were not RBTs, 29.5% ($n =$

23) indicated they were RBTs, and one participant chose not to respond. Indicating that six participants were RBTs with different job titles. Participants were then asked about their highest degree earned. Table 5 indicates participant responses, with 60.3% ($n = 47$) of participants having an associate degree as the highest percentage. One participant chose not to respond.

Table 4

Job Title

Job Title	N	%
Behavior Aid	3	3.8%
Behavior Specialist	1	1.3%
Behavior Support Aid	3	3.8%
Behavior Technician	51	65.4%
Behavioral Health Technician	1	1.3%
Behavioral Tutor	1	1.3%
Registered Behavior Technician	17	21.8%
Missing	1	1.3%
Total	78	100%

Table 5

Highest Degree Earned

Degree Earned	N	%
High School Diploma/GED	20	25.6%
Associate degree	47	60.3%
Bachelor's Degree	9	11.5%
Master's Degree	1	1.3%
Missing	1	1.3%
Total	78	100%

Participants then indicated the state in which they work as behavior technicians. The highest percentage of participants indicated they worked in Florida, with 44.9% ($n = 35$), and the second highest was California, with 28.2% ($n = 22$). Table 6 represents participant responses to what state they work in.

Table 6

State Participants Work In

State Work In	N	%
Alabama	1	1.3%
California	22	28.2%
Colorado	1	1.3%
Connecticut	1	1.3%
Florida	35	44.9%
Georgia	1	1.3%
Massachusetts	1	1.3%
New Jersey	3	3.8%
New York	8	10.3%
Oklahoma	1	1.3%
Pennsylvania	3	3.8%
Utah	1	1.3%
Total	78	100%

Reliability

To measure the reliability of each survey tool, Cronbach's alpha was calculated for each score produced by the MBI-ES and MSQ. Cronbach's alpha is calculated to ensure questions are interrelated by measuring the same concept and are considered high if above $\alpha = .7$. For the

MBI-ES, Cronbach's alpha was $\alpha = .80$ for the entire instrument. For each sub-scale, emotional exhaustion was $\alpha = .96$, depersonalization was $\alpha = .83$, and personal accomplishment was $\alpha = .77$. For the MSQ, Cronbach's alpha for the general was $\alpha = .92$, extrinsic was $\alpha = .87$, and intrinsic was $\alpha = .88$. All measures of Cronbach alpha for the MBI-ES and MSQ demonstrated high levels of internal consistency.

Descriptive Statistics

The MBI-ES comprises 22 questions and produces three sub-scales for emotional exhaustion, depersonalization, and personal accomplishment. The three sub-scale scores are calculated by the mean of the survey items within each scale; scores can range from 0-6. The range, mean, standard deviation, skewness, and kurtosis for the MBI-ES can be found in Table 7. The means for emotional exhaustion, depersonalization, and personal accomplishment were 3.50, 1.92, and 4.37, respectively, indicating an overall higher sense of emotional exhaustion, lower sense of depersonalization, and higher sense of personal accomplishment across participants. Burnout is an increased sense of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach & Jackson, 1981). Results indicate that although participants experienced higher rates of emotional exhaustion, they did not experience burnout across all three sub-scales.

Table 7*Descriptive Statistics of MBI-ES*

Scales	N	Minimum	Maximum	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
MBI-EE	78	.11	5.89	3.50	1.31	-.63	-.16
MBI-DP	78	.00	5.40	1.92	1.24	.61	.11
MBI-PA	78	2.25	6.00	4.37	.78	-.49	.30
Valid N	78						

Note. MBI-EE refers to the emotional exhaustion sub-scale of the Maslach Burnout Inventory-Educator's Survey, MBI-DP refers to the depersonalization sub-scale, and the MBI-PA refers to the personal accomplishment sub-scale.

Due to the nature of the job as a behavior technician and dealing with students individually demonstrating challenging behaviors, specific questions within depersonalization and personal accomplishment could have been impacted. Within depersonalization, such questions include treating students as impersonal objects, student's blaming them for problems, and not caring what happens to students. Within personal accomplishment, questions could include easily understanding how students feel, dealing effectively with students' problems, creating a relaxed atmosphere, and dealing with emotional problems calmly. Skewness and kurtosis were calculated for each sub-scale score to test for the normality of the distribution in Table 7. Emotional exhaustion had a skewness of -.63 indicating a moderate skewness of data but low kurtosis of -.16. Depersonalization had a skewness of .61 indicating a moderate skewness of data but low kurtosis of .11. Personal accomplishment had a skewness of -.49 indicating a symmetrical data set and a low kurtosis of .30.

The MSQ consists of 20 questions resulting in a general satisfaction score and two sub-scales for extrinsic and intrinsic satisfaction. The sum of scores calculated for general

satisfaction is 20-100, intrinsic satisfaction range is 14-70, and extrinsic satisfaction range is 6-30. The range, mean, standard deviation, skewness, and kurtosis for the MBI-ES can be found in Table 8. The means for general satisfaction, intrinsic, and extrinsic were 60.44, 39.04, and 14.09, respectively, indicating that behavior technicians working in public schools have a moderate level of satisfaction across all scales. Skewness and kurtosis were calculated for a score to test for the normality of the distribution, as shown in Table 8. General satisfaction had a skewness of .09, indicating a symmetry of data and low kurtosis of 1.06. Intrinsic satisfaction had a skewness of -.01, indicating symmetry of data and low kurtosis of 1.32. Extrinsic had a skewness of .17 indicating a symmetrical data set and a low kurtosis of -.39.

Table 8

Descriptive Statistics of MSQ

Scales	N	Minimum	Maximum	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
MSQ General	78	31.00	93.00	60.44	11.68	.09	1.06
MSQ Intrinsic	78	21.00	58.00	39.04	7.17	-.01	1.32
MSQ Extrinsic	78	6.00	25.00	14.09	4.53	.17	-.39
Valid N	78						

Note. MSQ General refers to the general scale of the Minnesota Satisfaction Questionnaire short form, MSQ Intrinsic refers to the intrinsic sub-scale, and MSQ Extrinsic refers to the extrinsic sub-scale.

Pearson Correlation

A Pearson correlation coefficient was calculated to determine the strength and direction of the linear relationship between the independent variables from the MBI-ES and the dependent variable from each score of the MSQ. Table 9 displays the results. The general satisfaction scale

of the MSQ had a significant negative correlation with emotional exhaustion ($r = .73$) and depersonalization ($r = -.69$) sub-scales of the MBI-ES and a significant positive correlation with personal accomplishment ($r = .69$). The intrinsic satisfaction sub-scale of the MSQ had a significant negative correlation with emotional exhaustion ($r = -.67$) and depersonalization ($r = -.67$) and a significant positive correlation with personal accomplishment ($r = .68$). The extrinsic satisfaction sub-scale of the MSQ also had a significant negative correlation with emotional exhaustion ($r = -.68$) and depersonalization ($r = .61$) and a significant positive correlation with personal accomplishment ($r = .61$). All variable relationships demonstrated a statistically significant correlation with a $p < .001$ value. As expected, participants experiencing lower levels of general, extrinsic, and intrinsic job satisfaction were found to be associated with higher levels of emotional exhaustion and depersonalization. In addition, higher levels of general, extrinsic, and intrinsic job satisfaction are associated with high levels of personal accomplishment.

Table 9

Pearson Correlation of MSQ vs. MBI-ES

Variable	MSQ General	MSQ Intrinsic	MSQ Extrinsic
MBI-EE	-.72*	-.67*	-.68*
MBI-DP	-.69*	-.67*	-.61*
MBI-PA	.69*	.68*	.61*

Note. N=78. MBI-EE refers to the emotional exhaustion sub-scale of the Maslach Burnout Inventory-Educator's Survey, MBI-DP refers to the depersonalization sub-scale, and the MBI-PA refers to the personal accomplishment sub-scale. MSQ General refers to the general scale of the Minnesota Satisfaction Questionnaire short form, MSQ Intrinsic refers to the intrinsic sub-scale, and MSQ Extrinsic refers to the extrinsic sub-scale.

* $p < .001$

Multiple Linear Regression

Using multiple linear regression, the researcher sought to determine to what extent the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools. Multiple regression analysis assesses the relationship between one outcome variable and the combined relationship of the predictor variables (Creswell & Guetterman, 2019). Three multiple regressions were conducted between each score produced from the MSQ (general, intrinsic, and extrinsic satisfaction) as the dependent variable and the three scores produced from the MBI-ES (emotional exhaustion, depersonalization, and personal accomplishment) as the independent variables.

MSQ General

Multiple linear regression was used to determine if the three subscales of the MBI-ES (emotional exhaustion, depersonalization, and personal accomplishment) significantly predicted the MSQ overall score for general satisfaction. Emotional exhaustion, depersonalization, and personal accomplishment significantly predicted general satisfaction with an adjusted $R^2 = .63$, $F(3, 74) = 44.58$, $p < .001$. The fitted regression model was calculated: General Satisfaction = $51.88 + (-4.01 * \text{emotional exhaustion}) + (-.86 * \text{depersonalization}) + (5.54 * \text{personal accomplishment})$. Indicating that a 4.01 decrease ($\pm .95$) in the general satisfaction score accounted for one mean score increase in emotional exhaustion. In addition, a .86 decrease (± 1.14) in the general satisfaction score accounted for one mean score increase in depersonalization. Finally, a 5.54 increase (± 1.42) in the general satisfaction score accounted for one mean score increase in personal accomplishment. It was found that the slope coefficient for emotional exhaustion of $\beta = -4.01$ had a 95% CI $[-5.90, -2.11]$, which was found to be

statistically significant with general satisfaction $p < .001$. The slope coefficient for depersonalization of $\beta = -.86$ had a 95% CI [-3.13, 1.42], which was not statistically significant with general satisfaction $p = .456$. It was found that the slope coefficient for personal accomplishment of $\beta = 5.54$ had a 95% CI [2.71, 8.36], which was found to be statistically significant with general satisfaction $p < .001$. The null hypothesis could not be entirely rejected as depersonalization was found not to predict general satisfaction. Table 10 displays the intercept, slope coefficients, statistical significance, and confidence intervals.

Table 10

Regression Coefficients for MSQ General

Variable	<i>B</i>	95.0% CI for <i>B</i>		<i>SE B</i>	β	<i>t</i>	<i>p</i>
		<i>LL</i>	<i>UL</i>				
(Constant)	51.88	36.15	67.62	7.90		6.57	<.001
MBI-EE	-4.01	-5.90	-2.11	.95	-.45	-4.21	<.001
MBI-DP	-.86	-3.13	1.42	1.14	-.09	-.75	.456
MBI-PA	5.54	2.71	8.36	1.42	.37	3.91	<.001

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit. The dependent variable is the Minnesota Satisfaction Questionnaire General score. MBI-EE refers to the emotional exhaustion sub-scale of the Maslach Burnout Inventory-Educator's Survey, MBI-DP refers to the depersonalization sub-scale, and the MBI-PA refers to the personal accomplishment sub-scale.

MSQ Intrinsic

Multiple linear regression was used to determine if the three subscales of the MBI-ES (emotional exhaustion, depersonalization, and personal accomplishment) significantly predicted the MSQ score for intrinsic satisfaction. Emotional exhaustion, depersonalization, and personal accomplishment statistically significantly predicted intrinsic satisfaction with an adjusted $R^2 =$

.57, $F(3,74) = 35.45$, $p < .001$. The fitted regression model was calculated: Intrinsic Satisfaction = $31.97 + (-1.84 * \text{emotional exhaustion}) + (-.91 * \text{depersonalization}) + (3.49 * \text{personal accomplishment})$. Indicating that a 1.84 decrease ($\pm .63$) in the intrinsic satisfaction score accounted for one mean score increase in emotional exhaustion. In addition, a .91 decrease ($\pm .75$) in the intrinsic satisfaction score accounted for one mean score increase in depersonalization. Finally, a 3.49 increase ($\pm .93$) in the intrinsic satisfaction score accounted for one mean score increase in personal accomplishment. It was found that the slope coefficient for emotional exhaustion of $\beta = -1.84$ had a 95% CI $[-3.09, -.60]$, which was found to be statistically significant with intrinsic satisfaction $p = .004$. It was found that the slope coefficient for depersonalization of $\beta = -.91$ had a 95% CI $[-2.41, .59]$, which was found to not be statistically significant with intrinsic satisfaction $p = .231$. It was found that the slope coefficient for personal accomplishment of $\beta = 3.49$ had a 95% CI $[1.63, 5.35]$, which was found to be statistically significant with intrinsic satisfaction $p < .001$. The null hypothesis could not be entirely rejected as depersonalization was found not to predict intrinsic satisfaction. Table 11 displays the intercept, slope coefficients, statistical significance, and confidence intervals.

Table 11*Regression Coefficients for MSQ Intrinsic*

Variable	<i>B</i>	95.0% CI for <i>B</i>		<i>SE B</i>	β	<i>t</i>	<i>p</i>
		<i>LL</i>	<i>UL</i>				
(Constant)	31.97	21.60	21.60	5.20		6.15	<.001
MBI-EE	-1.84	-3.09	-3.09	.63	-.34	-2.94	.004
MBI-DP	-.91	-2.41	-2.41	.75	-.16	-1.21	.231
MBI-PA	3.49	1.63	1.63	.93	.38	3.74	<.001

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit. The dependent variable is the Minnesota Satisfaction Questionnaire Intrinsic score. MBI-EE refers to the emotional exhaustion sub-scale of the Maslach Burnout Inventory-Educator's Survey, MBI-DP refers to the depersonalization sub-scale, and the MBI-PA refers to the personal accomplishment sub-scale.

MSQ Extrinsic

Multiple linear regression was used to determine if the three subscales of the MBI-ES (emotional exhaustion, depersonalization, and personal accomplishment) significantly predicted the MSQ overall score for extrinsic satisfaction. Emotional exhaustion, depersonalization, and personal accomplishment statistically significantly predicted extrinsic satisfaction with an adjusted $R^2 = .52$, $F(3,74) = 28.98$, $p < .001$. The fitted regression model was calculated: Extrinsic Satisfaction = 11.69 + (-1.62*emotional exhaustion) + (-.12*depersonalization) + (1.90*personal accomplishment). Indicating that a 1.62 decrease ($\pm .42$) in the extrinsic satisfaction score accounted for one mean score increase in emotional exhaustion. In addition, a .12 decrease ($\pm .50$) in the extrinsic satisfaction score accounted for one mean score increase in depersonalization. Finally, a 1.90 increase ($\pm .62$) in the extrinsic satisfaction score accounted for one mean score increase in personal accomplishment. It was found that the slope coefficient for emotional exhaustion of $\beta = -1.62$ had a 95% CI [-2.46, -.79], which was found to be statistically

significant with extrinsic satisfaction $p < .001$. It was found that the slope coefficient for depersonalization of $\beta = -.12$ had a 95% CI [-1.12, .89], which was found not to be statistically significant with extrinsic satisfaction $p = .816$. It was found that the slope coefficient for personal accomplishment of $\beta = 1.90$ had a 95% CI [.66, 3.14], which was found to be statistically significant with extrinsic satisfaction $p = .003$. The null hypothesis could not be entirely rejected as depersonalization was found not to predict extrinsic satisfaction. Table 12 displays the intercept, slope coefficients, statistical significance, and confidence intervals.

Table 12

Regression Coefficients for MSQ Extrinsic

Variable	<i>B</i>	95.0% CI for <i>B</i>		<i>SE B</i>	β	<i>t</i>	<i>p</i>
		<i>LL</i>	<i>UL</i>				
(Constant)	11.69	4.76	18.62	3.48		3.36	.001
MBI-EE	-1.62	-2.46	-.79	.42	-.47	-3.87	<.001
MBI-DP	-.12	-1.12	.89	.50	-.03	-.23	.816
MBI-PA	1.90	.66	3.14	.62	.33	3.04	.003

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit. MBI-EE refers to the emotional exhaustion sub-scale of the Maslach Burnout Inventory-Educator's Survey, MBI-DP refers to the depersonalization sub-scale, and the MBI-PA refers to the personal accomplishment sub-scale.

Summary

The problem to be studied was the need to ensure that the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that have resulted in high rates of attrition do not also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, the purpose of this

quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technicians in public schools utilizing the following research question and associated hypotheses:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

Results of this study indicate that although participants experienced higher rates of emotional exhaustion, they are not experiencing burnout across depersonalization or personal accomplishment. In addition, participants indicated an overall moderate level of satisfaction across all scales. The Pearson correlation coefficients demonstrated that participants experiencing lower levels of general, extrinsic, and intrinsic job satisfaction were associated with higher levels of emotional exhaustion and depersonalization. Also, higher levels of general, extrinsic, and intrinsic job satisfaction were associated with high levels of personal accomplishment. The multiple regression analysis found that a statistically significant relationship existed between each score of the MSQ (general, intrinsic, and extrinsic satisfaction) and two sub-scales of the MBI-ES: emotional exhaustion and personal accomplishment. The null hypothesis could not be entirely rejected as depersonalization was not found to predict general, intrinsic, or extrinsic job satisfaction. Chapter 5 will further explore the findings of this study and

the implications for behavior technicians that work in public schools while providing recommendations and feedback for future research.

CHAPTER 5: CONCLUSION

This quantitative correlational study was conducted to determine if burnout predicted job satisfaction of behavior technicians in public schools. An online survey was created using REDCap consisting of the Maslach Burnout Inventory – Educators Survey (MBI-ES; Maslach et al., 1996), the Minnesota Satisfaction Questionnaire (MSQ) short form (Weiss et al., 1977), a demographic questionnaire, and a debriefing form. The School-Based ABA Facebook group, consisting of 18,400 members, agreed to have the survey posted in the group for over eight weeks to allow for participant recruitment. Members of the Facebook group and participants were encouraged to share the posting with other behavior technicians they knew. This researcher sought to answer the following research question and associated hypotheses:

Research Question One: To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

In total, 78 participants completed all survey questions and agreed to participate after reviewing the debriefing form. Based on the results, participants were not experiencing burnout across depersonalization or personal accomplishment but were experiencing higher rates of emotional exhaustion. Results of the MSQ indicated a moderate level of job satisfaction across

general, intrinsic, and extrinsic satisfaction. Pearson correlation coefficients indicated that participants experiencing lower levels of job satisfaction had higher levels of emotional exhaustion and depersonalization. Also, higher levels of job satisfaction were associated with high personal accomplishment. The null hypothesis could not be entirely rejected based on the multiple linear regression as depersonalization was not found to predict general, intrinsic, or extrinsic job satisfaction. Although, the multiple regression analysis found that a statistically significant relationship existed between each score of the MSQ (general, intrinsic, and extrinsic satisfaction) and two sub-scales of the MBI-ES: emotional exhaustion and personal accomplishment.

The importance of retention in education guided this study's conceptual framework. The National Center for Educational Statistics (NCES, 2022) reported that the national educator attrition rate in the United States is around 8% annually, equating to hundreds of thousands of educators leaving the field each year and exceeding like countries with a 3-4% attrition rate. To decrease the demands and stress of managing challenging behavior and to possibly increase retention of teachers and paraprofessionals, school districts have recently utilized behavior technicians, who are specifically trained in managing student behavior (Novack & Dixon, 2019). Unfortunately, research outlines the negative impact of managing challenging behaviors on an individual's feelings of burnout. However, research on burnout of behavior technicians was limited to home, community, or specialized private school settings only with students with ASD (Hester et al., 2020; Novack & Dixon, 2019; Oberle et al., 2020; Owens et al., 2018; Saloviita & Pakarinen, 2021; Wiggs et al., 2021).

Burnout theory, which guided the theoretical framework of this study, was first introduced by Freudenberg in 1974, and Maslach and colleagues used a quantitative approach

to define further and assess burnout (Maslach & Jackson, 1981; Maslach et al., 1996; Maslach et al., 2001). Maslach and Jackson (1981) defined burnout as increased emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment. These three characteristics of burnout informed the development of the Maslach Burnout Inventory (MBI), which has since been adapted specifically for the field of education, known as the Maslach Burnout Inventory – Educators Survey (MBI-ES; Maslach et al., 1996).

Grounded in the above frameworks, this study utilized the MBI-ES to assess burnout of the behavior technicians in public schools to expand upon burnout research in education. In addition, since high levels of burnout have been correlated with a decreased level of job satisfaction in educators, this study also utilized the Minnesota Satisfaction Survey short form to address the research question and determine if that correlation exists with behavior technicians in public schools (Madigan & Kim, 2021; Saloviita & Pakarinen, 2021). Finally, the researcher assessed relationships between variables using Pearson Correlation coefficients and multiple linear regression. Chapter 5 explores the findings of this study, implications for behavior technicians that work in public schools, recommendations for action, and recommendations for future studies.

Interpretation and Importance of Findings

The correlational design of this study allowed the researcher to determine the degree, strength, and type of relationship between the characteristics of burnout and job satisfaction factors (Bloomfield & Fisher, 2019). There was a need to ensure that the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that has resulted in high rates of attrition did not also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). This section will share the

interpretation and importance of findings of the correlation between burnout and job satisfaction of behavior technicians in public schools.

Research Question

The purpose of this quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technician in public schools. Three findings and one sub-finding addressed the following research question:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Finding 1: Burnout Significantly Impacted Overall Job Satisfaction

The first finding of this study expanded the literature by suggesting that the characteristics of burnout, according to Maslach and Jackson's (1981) burnout theory, are significantly impacted by overall job satisfaction for behavior technicians in public schools. A 5.54 increase (± 1.42) in general satisfaction resulted in one mean score increase in personal accomplishment. In addition, a 4.01 decrease ($\pm .95$) in general satisfaction resulted in one mean score increase in emotional exhaustion. Increasing job satisfaction among behavior technicians working in public schools can significantly impact burnout, which has also been demonstrated by special education teachers (Robinson et al., 2019). Maslach et al. (2001) found that burnout causes individuals to withdraw from the working environment, both emotionally and cognitively, reducing their capacity to meet the needs of those that they serve. In addition, low job satisfaction has been shown to decrease retention and increase shortages in education and behavior technicians in private settings (Kazemi et al., 2015; Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, increasing job satisfaction of behavior technicians in

public schools would mitigate or prevent the impact of burnout and ensure that students with significantly challenging behaviors get the support that is needed. In addition, this increases the availability of support to teachers and paraprofessionals who find working with students with challenging behaviors to be stressful and has led those individuals to experience the characteristics of burnout (Garwood et al., 2017; Hester et al., 2020; Walker et al., 2017).

Considering the conceptual framework of retention for this study, results imply that stakeholders should focus on addressing job satisfaction.

Finding 2: Did Not Meet All Requirements of Burnout

The second finding of this study was that behavior technicians in public schools did not meet all the requirements of burnout as demonstrated by a mean of 3.50 for emotional exhaustion, 1.92 for depersonalization, and 4.27 for personal accomplishment, which burnout is indicated by high levels of emotional exhaustion and depersonalization and low levels of personal accomplishment. Using the characteristics of burnout according to Maslach and Jackson's (1981) burnout theory, behavior technicians in this study were not experiencing the same high rates of burnout compared to teachers and paraprofessionals in public school settings. As a result, the impact of burnout, as seen with teachers and paraprofessionals, such as quality of instruction and health issues, would not be as significant with this population of behavior technicians (Ansley et al., 2016; Gilmour et al., 2022; Hester et al., 2020).

Sub-finding 2: Depersonalization Similar Across Settings

The results of this study aligned with the research on behavior technicians in private settings, which found that high levels of depersonalization were not expected (Novack & Dixon, 2019). However, the literature notes that high levels of depersonalization significantly correlate with teaching students with disabilities, especially those with emotional disorders who display

significant challenging behaviors (Park & Shin, 2020; Saloviita & Pakarinen, 2021). In addition, due to the nature of the job as a behavior technician and dealing with students individually demonstrating challenging behaviors, specific questions within depersonalization, such as treating students as impersonal objects, students blaming them for problems, and not caring what happens to students, could be the rationale for lower scores. Therefore, based on the study results and literature, the setting in which behavior technicians work, whether public schools, home, clinic, or private schools, has not shown a difference related to depersonalization.

Finding 3: Intrinsic Job Satisfaction Significantly Impacted Personal Accomplishment

The third finding of this study indicated that intrinsic satisfaction significantly impacted personal accomplishment for behavior technicians in public schools. A 3.49 increase ($\pm .93$) in the intrinsic satisfaction score accounted for one mean score increase in personal accomplishment. Intrinsic job satisfaction questions within the MSQ comprised 12 out of the 20 questions. They were related to such things as keeping busy, working alone, doing different things, steady employment, a chance to do things for other people, making use of abilities, telling others what to do, using own judgment, and feeling accomplished on the job (Weiss et al., 1977). Although Schreyer and Krause (2016) outlined job satisfaction in relation to identifying with the nature of work, social experiences, security, compensation, and a sense of responsibility, most of the literature comparing burnout and job satisfaction focuses on professional development, compensation, recognition, personal factors, and administrative support (Madigan & Kim, 2021; Robinson et al., 2019; Sims, 2020; Skaalvik & Skaalvik, 2020). This study demonstrated the importance of how behavior technicians in public schools perceive the nature of work, security, and sense of responsibility to job satisfaction. Understanding the role of such intrinsic job

satisfaction factors can benefit stakeholders in increasing the overall level of job satisfaction and sense of personal accomplishment of behavior technicians in public schools.

Implications

The implications of this study's findings could positively impact behavior technicians, teachers, paraprofessionals, and, most notably, students in public schools. Since the registered behavior technician (RBT) position was created in 2014, the number of individuals with the certification has grown to 130,273 in the United States. Of those, 5,471 identified as working in education (BACB, 2022). In this study, only 29.5% of the participants were RBTs, indicating that the number of behavior technicians that work in public schools could be far more significant. There were three implications of this study. First, the findings of this study are significant as they provide insight into a literature gap since behavior technicians had only been assessed for burnout in private settings (Novack & Dixon, 2019). Participants had a higher level of emotional exhaustion, but burnout was not seen across depersonalization and personal accomplishment. Indicating that although participants felt competent and were not developing cynical attitudes about the students, they were struggling with giving of themselves to their students because their emotional resources were depleted (Maslach & Jackson, 1981). Even though they did not meet all the characteristics of burnout, this should still be of concern because although they may have the necessary skills and positive attitude about their students, they cannot fully utilize those because they feel emotionally drained.

The second implication of this study's findings is that it provides more insight into the impact of job satisfaction on behavior technicians in public schools. Participants only indicated a moderate level of job satisfaction. In addition, this study demonstrated the importance of how behavior technicians in public schools perceive intrinsic job satisfaction, such as the nature of the

work, security, and sense of responsibility, as the characteristics of burnout were significantly impacted by general and intrinsic job satisfaction for behavior technicians in public schools. Indicating that putting in processes to address intrinsic satisfaction could increase the overall job satisfaction of behavior technicians in public schools and decrease emotional exhaustion. As a result, behavior technicians in public schools would not feel emotionally depleted and could fully utilize their competency and positive attitudes about the students they serve.

The third implication of this study relates to the significant impact that acquiring and retaining behavior technicians in public schools can have on teachers, paraprofessionals, and students. Increasing job satisfaction and decreasing the level of burnout have both been attributed to retention, which is of significance as behavior technicians are critical in the public school setting as teachers and paraprofessionals identify dealing with student behavior as one of the most stressful components of their jobs (Hester et al., 2020; Kazemi et al., 2015; Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). In addition, the passing of the Individuals with Disabilities Act (IDEA) in 2004 added more strain to teachers and paraprofessionals as students with disabilities are more likely to spend most of their time in a general education setting. As a result, students with challenging behavior, with and without disabilities, must receive increasing levels of interventions with fidelity (U.S. Department of Education, 2017). Since higher levels of burnout have been attributed to educator attrition, acquiring and retaining behavior technicians could be of significance for school districts to ensure students with challenging behavior receive the required support, as outlined in IDEA, and potentially lower levels of burnout experienced by teachers and paraprofessionals resulting in increased job satisfaction (Madigan & Kim, 2021; Park & Shin, 2020; Sims, 2020).

Recommendations for Action

Stakeholders should focus on addressing job satisfaction since it is critical in decreasing burnout, increasing retention, and decreasing shortages in education and behavior technicians (Kazemi et al., 2015; Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). The literature suggests addressing professional development, administrative support, personal factors, compensation and recognition, and self-efficacy to increase job satisfaction (Madigan & Kim, 2021; Robinson et al., 2019; Sims, 2020; Skaalvik & Skaalvik, 2020). In addition, this study demonstrated the importance of addressing how behavior technicians in public schools perceive the nature of the work, security, and sense of responsibility. Key components to effective professional development should include a group of behavior technicians, opportunities for active learning methods such as role-playing scenarios of students demonstrating challenging behaviors, collaborative learning, and presented on several occasions (Sims, 2020). Also, comprehensive initial training should be emphasized. Kazemi et al. (2015) found that behavior technicians who worked in private ABA agencies reported an overall increase in job satisfaction when receiving 30 or more hours of initial training. In addition, school districts should consider paying behavior technicians commensurate with expectations and certifications.

Behavior technicians are akin to paraprofessionals but specialize in supporting students with challenging behaviors and disabilities, and sometimes are RBTs and should be compensated accordingly. School districts should also consider providing opportunities for advancement, such as opportunities or discounted coursework to attain higher degrees, guidance to attain teacher certification, guidance to attain an RBT, or becoming a board-certified behavior analyst with a qualified supervisor. Supervisors of behavior technicians in public schools should ensure praise is being delivered for doing a good job and provide resource support (Compton et al., 2015). In

addition, behavior technicians with supervisors who provided emotional and professional support, guidance, and performance feedback indicated higher rates of job satisfaction (Compton et al., 2015; Kazemi et al., 2015). Behavior technicians in public schools need to ensure that they acquire a work-life balance by prioritizing mental health, family, and a clear separation between work and home life (Dauster, 2017). Behavior technicians should also consider ways to relate to their students and establish relationships, which has been shown to increase self-efficacy (Saloviita & Pakarinen, 2021; Zee & Koomen, 2016). These recommendations could substantially impact job satisfaction and improve burnout and retention levels. These recommendations provide a starting point for stakeholders in addressing job satisfaction based on feedback from educators and behavior technicians in private settings. Further analysis into what actions behavior technicians in public schools find increase or decrease their job satisfaction should be addressed.

Recommendations for Further Study

Since research on burnout and job satisfaction of behavior technicians in public education is limited, the researcher chose to focus on a quantitative approach for the initial research on the specific population. Since the use of the MBI-ES demonstrated that the participants did not meet the criteria for burnout, a qualitative or mixed methods approach could further expand as to why participants did not meet criteria and what factors play a role. In addition, could target the population compared to other settings. This study found that intrinsic job satisfaction factors such as the nature of work, security, and sense of responsibility were significantly correlated with burnout. However, adding open-ended questions or follow-up interviews could provide vital information related to these specific factors and what stakeholders can do to address them. In addition, although demographic information was collected, future research could look at the

correlation between demographic factors, burnout, and job satisfaction. Research could address if RBTs are more or less likely to experience burnout or job satisfaction when working in public schools. In addition, 44.9% of the participants were from Florida, so researchers could consider a more representative sample of the country. Research of behavior technicians in private settings has looked at other factors concerning burnout and job satisfaction, such as employee and organizational factors, which should also be considered for future research (Novack & Dixon, 2019). Employee factors include attitudes towards specific disabilities, commitment to philosophy, coping, personality traits, and self-efficacy. Employee factors include benefits, hours, pay, setting of services, supervisor support, training, travel time, and work demands. Finally, researchers could consider a longitudinal approach and have the participants take the survey across the school year to see if the time of year impacts results or if burnout or job satisfaction changes yearly.

Conclusion

The problem studied was the need to ensure that the high levels of burnout and low job satisfaction experienced by teachers and paraprofessionals that had resulted in high rates of attrition did not also impact behavior technicians in public school settings (Madigan & Kim, 2021; NCES, 2022; Sims, 2020; Skaalvik & Skaalvik, 2020). Therefore, the purpose of this quantitative correlational study was to determine if burnout predicts job satisfaction of behavior technician in public schools utilizing the following research question and hypotheses:

Research Question One. To what extent do the characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) predict job satisfaction for behavior technicians in public schools?

Null Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do not predict job satisfaction for behavior technicians in public schools.

Alternative Hypothesis: The characteristics of burnout (increased emotional exhaustion, increased depersonalization, and decreased personal accomplishment) do predict job satisfaction for behavior technicians in public schools.

Burnout impacts the personal wellness of the educator as well as impedes the individual's ability to provide quality instruction to students (Ansley et al., 2016; Hester et al., 2020; Park & Shin, 2020). Examining the impact of burnout and job satisfaction and the management of challenging behavior by teachers, paraprofessionals, and behavior technicians in private settings was critical to understanding the potential effects on behavior technicians working in public school settings. In general education teachers, special education teachers, and paraprofessionals, burnout was found to have a correlation with job satisfaction, working with students with disabilities, role conflict, self-efficacy, administrative support, and specific student disabilities (Ford et al., 2019; Hester et al., 2020; Park & Shin, 2020; Saloviita & Pakarinen, 2021; Sims, 2020). Job satisfaction was found to be impacted by compensation, recognition, professional development, personal factors, and support (Brouwers & Tomic, 2016; Robinson et al., 2019; Sims, 2020; Soini et al., 2019). Unfortunately, behavior technicians were only assessed for burnout and job satisfaction in the home, clinic, or private school settings (Novack & Dixon, 2019). Within those settings, supervisor support, wishful-thinking coping, neuroticism, and negative implicit attitudes towards students with autism spectrum disorder were correlated to burnout (Novack & Dixon, 2019). Job satisfaction was impacted by pay, support, training,

opportunities for advancement, and praise for doing an excellent job (Dauster, 2017; Kazemi et al., 2015).

This study expanded on the literature by assessing burnout and job satisfaction of behavior technicians that work in public schools. Overall, participants were not experiencing burnout across depersonalization or personal accomplishment but were experiencing higher rates of emotional exhaustion. Participants also indicated a moderate level of job satisfaction across general, intrinsic, and extrinsic satisfaction. Participants experiencing lower levels of job satisfaction were associated with higher levels of emotional exhaustion and depersonalization. Also, higher levels of job satisfaction were associated with high levels of personal accomplishment. Although the null hypothesis could not be entirely rejected, the multiple linear regression found that a statistically significant relationship existed between each score of the MSQ (general, intrinsic, and extrinsic satisfaction) and two sub-scales of the MBI-ES, emotional exhaustion, and personal accomplishment.

This study expanded the literature by suggesting that the characteristics of burnout, according to Maslach and Jackson (1981) burnout theory, are significantly impacted by general and intrinsic job satisfaction for behavior technicians in public schools. In addition, this study demonstrated the importance of addressing how behavior technicians in public schools perceive the nature of work, security, and sense of responsibility to job satisfaction. Stakeholders should focus on addressing job satisfaction since it is critical in decreasing burnout, increasing retention, and decreasing shortages in education and behavior technicians (Kazemi et al., 2015; Madigan & Kim, 2021; Sims, 2020; Skaalvik & Skaalvik, 2020). The literature suggests addressing professional development, administrative support, personal factors, compensation and recognition, and self-efficacy to increase job satisfaction (Madigan & Kim, 2021; Robinson et

al., 2019; Sims, 2020; Skaalvik & Skaalvik, 2020). Increasing job satisfaction of behavior technicians in public schools would mitigate the impact of burnout and ensure that students with significant challenging behaviors continue to get the support required by IDEA and maximize their success in a public school setting.

REFERENCES

- Akram, B., Batool, M., Rafi, Z., & Akram, A. (2017). Prevalence and predictors of non-suicidal self-injury among children with autism spectrum disorder. *Pakistan Journal of Medical Sciences*, 33(5). <https://doi.org/10.12669/pjms.335.12931>
- American Association of Colleges for Teacher Education. (2022). *Colleges of education: A national portrait second edition*. <https://aacte.org/wp-content/uploads/2022/03/Colleges-of-Education-A-National-Portrait-Executive-Summary.pdf>
- Ansley, B. M., Houchins, D., & Varjas, K. (2016). Optimizing special educator wellness and job performance through stress management. *Teaching Exceptional Children*, 48(4), 176–185. <https://doi.org/10.1177/0040059915626128>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Barnes, T. N., Cipriano, C., McCallops, K., Cucuini-Harmon, C., & Rivers, S. E. (2018). Examining the relationship between perceptions of teaching self-efficacy, school support, and teacher and paraeducator burnout in a residential school setting. *Emotional and Behavioral Difficulties*, 23(3), 284–295. <https://doi.org/10.1080/13632752.2018.1461452>
- Behavior Analyst Certification Board. (2017). *Registered Behavior Technician - Behavior Analyst Certification Board*. Behavior Analyst Certification Board. <https://www.bacb.com/rbt/>
- Behavior Analyst Certification Board. (2022). *BACB certificant data*. Behavior Analyst Certification Board. <https://www.bacb.com/bacb-certificant-data/>
- Bettini, E. A., Cumming, M. M., Merrill, K. L., Brunsting, N. C., & Liaupsin, C. J. (2016). Working conditions in self-contained settings for students with emotional

- disturbance. *The Journal of Special Education*, 51(2), 83–94.
<https://doi.org/10.1177/0022466916674195>
- Bloomfield, J., & Fisher, M. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses' Association*, 22(2), 27–30. <https://doi.org/10.33235/jarna.22.2.27-30>
- Brouwers, A., & Tomic, W. (2016). Job-demands, job control, social support, self-efficacy, and burnout of staff of residential children's homes. *Educational Practice and Theory*, 38(1), 89–107. <https://doi.org/10.7459/ept/38.1.07>
- Brown, T. S., & Stanton-Chapman, T. L. (2017). Experiences of paraprofessionals in US preschool special education and general education classrooms. *Journal of Research in Special Educational Needs*, 17(1), 18–30. <https://doi.org/10.1111/1471-3802.12095>
- Compton, M. V., Appenzeller, M., Kemmery, M., & Gardiner-Walsh, S. (2015). Itinerant teachers' perspectives of using collaborative practices in serving students who are deaf or hard of hearing. *American Annals of the Deaf*, 160(3), 255–272.
<https://doi.org/10.1353/aad.2015.0023>
- Cooper, J. O., Herron, T. E., & Heward, W. L. (2019). *Applied Behavior Analysis* (3rd ed.). Pearson.
- Creative Commons. (2022). *Attribution-Noncommercial 4.0 International*.
 Creativecommons.org. <https://creativecommons.org/licenses/by-nc/4.0/>
- Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage, Cop.

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. <https://doi.org/10.1007/bf02310555>
- Cymbal, D. J., Litvak, S., Wilder, D. A., & Burns, G. N. (2021). An examination of variables that predict turnover, staff and caregiver satisfaction in behavior-analytic organizations. *Journal of Organizational Behavior Management*, *42*(1), 1–20. <https://doi.org/10.1080/01608061.2021.1910099>
- Dauster, M. M. (2017). *Job retention and job satisfaction at the behavior therapist level working in ABA companies in the home setting* [Doctoral Dissertation, Brandman University].
- Department of Health, Education, and Welfare. (1978). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research*. United States. https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report-508c_FINAL.pdf
- Donley, J., Detrich, R., Keyworth, R., & States, J. (2019). *Teacher retention*. The Wing Institute.
- Ellis, T., & Levy, Y. (2009). Towards a Guide for Novice Researchers on Research Methodology: Review and Proposed Methods. *InSITE Conference*. <https://doi.org/10.28945/3325>
- Fabiano, G. A., Vujnovic, R. K., Waschbusch, D. A., Yu, J., Mashtare, T., Pariseau, M. E., Pelham, W. E., Parham, B. R., & Smalls, K. J. (2013). A comparison of workshop training versus intensive, experiential training for improving behavior support skills in early educators. *Early Childhood Research Quarterly*, *28*(2), 450–460. <https://doi.org/10.1016/j.ecresq.2012.12.001>
- Ford, T. G., Olsen, J., Khojasteh, J., Ware, J., & Urick, A. (2019). The effects of leader support for teacher psychological needs on teacher burnout, commitment, and intent to

leave. *Journal of Educational Administration*, 57(6), 615–634.

<https://doi.org/10.1108/jea-09-2018-0185>

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159–165.

<https://doi.org/10.1111/j.1540-4560.1974.tb00706.x>

Gaon, F. (2018). *Self-compassion as a buffer from burnout of teaching assistants working with students on the autism spectrum: A quantitative study* [Doctoral Dissertation, Manhattanville College].

Garwood, J. D., Van Loan, C. L., & Werts, M. G. (2017). Mindset of paraprofessionals serving students with emotional and behavioral disorders. *Intervention in School and Clinic*, 53(4), 206–211. <https://doi.org/10.1177/1053451217712958>

Gilmour, A. F., Sandilos, L. E., Pilny, W. V., Schwartz, S., & Wehby, J. H. (2022). Teaching students with emotional/behavioral disorders: Teachers' burnout profiles and classroom management. *Journal of Emotional and Behavioral Disorders*, 30(1), 106342662110202. <https://doi.org/10.1177/10634266211020258>

Green Mountain Behavior Consulting. (2021). *School based behavior instructor/technician*. Indeed.com.

<https://www.indeed.com/viewjob?jk=ed29393a7ec51493&q=School%20Based%20Behavior%20Technician&tk=1f11o6qv5au800&from=web&advn=1422354927352910&adid=378596993&ad=->

6NY1bfkN0AgSjwMOY8LWv5OyqzNxB4EpbaDpzCSWU3reLkvmAKNlwuMOisDGEfxX-

jLrI7LlQc9qy2mTLf7xh27Y6z4W6EzfnUA1Yw4178pFfcMAilGo8vQgMPMDO3HQ1talNaEav-3QqrY5vXpJMsoJgmzpOM9f0gfH6v2P0BJ_SV0h-

zEUN0XDruGSOhCZwrE_ZDEle6GkIhNw4-5vd2McuEfZRqc7jNMXAIsOco-
 mdgKF2kju4Ikw3m6h5X7ObAppU6UaJbOFXleJ6rAEloqONItvrQQ6emTLhtGkGnIpIu
 TzSiH_4LOdWQYMP8diec6xsAH_x8ue3ieAG-16INB-
 FGnCAQAZzi1FQ3AKe_Ga2dDJJ0R308GIm76nGbysHqeOGZkeU%3D&pub=4a1b36
 7933fd867b19b072952f68dceb&vjs=3

Heffner, C. (2018). *Research methods*. Allpsych.com.

<https://allpsych.com/researchmethods/experimentalvalidity/>

Heinemann, L. V., & Heinemann, T. (2017). Burnout research: Emergence and scientific investigation of a contested diagnosis. *SAGE Open*, 7(1), 1–12.

<https://doi.org/10.1177/2158244017697154>

Hester, O. R., Bridges, S. A., & Rollins, L. H. (2020). “Overworked and underappreciated”: Special education teachers describe stress and attrition. *Teacher Development*, 24(3), 348–365. <https://doi.org/10.1080/13664530.2020.1767189>

Individuals With Disabilities Education Act, 20 U.S.C. § 1400 (2004)

Kazemi, E., Shapiro, M., & Kavner, A. (2015). Predictors of intention to turnover in behavior technicians working with individuals with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 17, 106–115. <https://doi.org/10.1016/j.rasd.2015.06.012>

Kelly, A., & Barnes-Holmes, D. (2013). Implicit attitudes towards children with autism versus normally developing children as predictors of professional burnout and psychopathology. *Research in Developmental Disabilities*, 34(1), 17–28.

<https://doi.org/10.1016/j.ridd.2012.07.018>

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

- Madigan, D. J., & Kim, L. E. (2021). Towards an understanding of teacher attrition: A meta-analysis of burnout, job satisfaction, and teachers' intentions to quit. *Teaching and Teacher Education, 105*, 103425. <https://doi.org/10.1016/j.tate.2021.103425>
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior, 2*(2), 99–113. <https://doi.org/10.1002/job.4030020205>
- Maslach, C., Jackson, S., & Leiter, M. (1996). *The Maslach Burnout Inventory* (3rd ed.). Consulting Psychologist Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*(1), 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Mason, R. A., Gunersel, A. B., Irvin, D. W., Wills, H. P., Gregori, E., An, Z. G., & Ingram, P. B. (2020). From the frontlines: Perceptions of paraprofessionals' roles and responsibilities. *Teacher Education and Special Education, 44*(2), 088840641989662. <https://doi.org/10.1177/0888406419896627>
- McMillan, J. H., & Schumacher, S. (2014). *Research in education: Evidence-based inquiry*. Pearson.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation*. Jossey-Bass, Cop.
- National Center for Education Statistics. (2022). *Teacher turnover: Stayers, movers, and leavers*. U.S. Department of Education, Institute of Education Sciences.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B. A., & Wright, P. M. (2010). *Fundamentals of human resource management*. New York, Ny McGraw-Hill Education C.
- Novack, M. N., & Dixon, D. R. (2019). Predictors of burnout, job satisfaction, and turnover in behavior technicians working with individuals with autism spectrum disorder. *Review*

- Journal of Autism and Developmental Disorders*, 6(4), 413–421.
<https://doi.org/10.1007/s40489-019-00171-0>
- Oberle, E., Gist, A., Cooray, M. S., & Pinto, J. B. R. (2020). Do students notice stress in teachers? Associations between classroom teacher burnout and students' perceptions of teacher social–emotional competence. *Psychology in the Schools*, 57(11).
<https://doi.org/10.1002/pits.22432>
- Owens, J. S., Holdaway, A. S., Smith, J., Evans, S. W., Himawan, L. K., Coles, E. K., Girio-Herrera, E., Mixon, C. S., Egan, T. E., & Dawson, A. E. (2018). Rates of common classroom behavior management strategies and their associations with challenging student behavior in elementary school. *Journal of Emotional and Behavioral Disorders*, 26(3), 156–169. <https://doi.org/10.1177/1063426617712501>
- Park, E., & Shin, M. (2020). A meta-analysis of special education teachers' burnout. *SAGE Open*, 10(2), 215824402091829. <https://doi.org/10.1177/2158244020918297>
- Patten, M. L., & Newhart, M. (2018). *Understanding research methods: An overview of the essentials*. Routledge, Cop.
- Pavlović, M., Žunić-Pavlović, V., & Glumbić, N. (2013). Students' and teachers' perceptions of aggressive behaviour in adolescents with intellectual disability and typically developing adolescents. *Research in Developmental Disabilities*, 34(11), 3789–3797.
<https://doi.org/10.1016/j.ridd.2013.07.035>
- Payne, G., & Payne, J. (2004). *Key concepts in social research*. London Sage.
- Powell, D., Dunlap, G., & Fox, L. (2006). Prevention and intervention for the challenging behaviors of toddlers and preschoolers. *Infants & Young Children*, 19(1), 25–35.
<https://doi.org/10.1097/00001163-200601000-00004>

- Privitera, G. J. (2020). *Research methods for the behavioral sciences*. Sage Publications, Inc.
- Robinson, O. P., Bridges, S. A., Rollins, L. H., & Schumacker, R. E. (2019). A study of the relation between special education burnout and job satisfaction. *Journal of Research in Special Educational Needs, 19*(4), 295–303. <https://doi.org/10.1111/1471-3802.12448>
- Ruddick, L., Davies, L., Bacarese-Hamilton, M., & Oliver, C. (2015). Self-injurious, aggressive and destructive behaviour in children with severe intellectual disability: Prevalence, service need and service receipt in the UK. *Research in Developmental Disabilities, 45*, 307–315. <https://doi.org/10.1016/j.ridd.2015.07.019>
- Saloviita, T., & Pakarinen, E. (2021). Teacher burnout explained: Teacher-, student-, and organization-level variables. *Teaching and Teacher Education, 97*, 103221. <https://doi.org/10.1016/j.tate.2020.103221>
- San Bernardino District. (2021). *Behavior Therapist/Technician*. Indeed.com. https://www.indeed.com/viewjob?jk=4c0285cb1ee4dd10&q=School%20Based%20Behavior%20Technician&tk=1f11o6qvet5au800&from=web&advn=8578903112934261&adid=375696146&ad=-6NYlbfkN0DKDNmSq4zm6bYIeDY19M6Lso8bF_ooOx1UG2I1wUYLUWiJg05CdeONn2MUFxyX-GuWxU5frULb42_y3IpPNbbFPoqmH7pDgela-e6CXiu666g2J2tBSqu8z5Vik0OJ6Zg9X8Ski0yxzFdyqhFgfmLhYW6xczQvNuB82ZozZsGXUMDVbfXhAqYmX0_sCeU7BAo-JK3GhbFDLCT7sQQZBjzr0OAQyG1qNoZV8NXkpZEsXWPBPiZzOMhzbXNIxzeFidsQ2fuN_6dfKHnUIQptk9yr11CbvJuMGBVzVx-7N9dR9ZWq1qpWBcFwdFX5456s6G6auBJ5dn3ly8uM8UHJgusxDtAwwfzCWqBSP5F eaAxYIrYevPEsf9Lh&pub=4a1b367933fd867b19b072952f68dceb&vjs=3

- Schilling, E. J., Randolph, M., & Boan-Lenzo, C. (2017). Job burnout in school psychology: How big is the problem? *Contemporary School Psychology, 22*(3), 324–331.
<https://doi.org/10.1007/s40688-017-0138-x>
- School District of Manatee County. (2018). *Job description: Behavior Technician*.
 Careers.manateeschools.net.
https://careers.manateeschools.net/psc/HCPRD/EMPLOYEE/HRMS/c/HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBL?Page=HRS_CAREERS_FL&Action=U&FOCUS=Applicant&SiteId=1&
- Schreyer, I., & Krause, M. (2016). Pedagogical staff in children’s day care centers in Germany – links between working conditions, job satisfaction, commitment and work-related stress. *Early Years, 36*(2), 132–147. <https://doi.org/10.1080/09575146.2015.1115390>
- Simó-Pinatella, D., Mumbardó-Adam, C., Alomar-Kurz, E., Sugai, G., & Simonsen, B. (2019). Prevalence of challenging behaviors exhibited by children with disabilities: Mapping the literature. *Journal of Behavioral Education, 28*(3), 323–343.
<https://doi.org/10.1007/s10864-019-09326-9>
- Sims, S. (2020). Modelling the relationships between teacher working conditions, job satisfaction and workplace mobility. *British Educational Research Journal, 46*(2), 301–320. <https://doi.org/10.1002/berj.3578>
- Skaalvik, E. M., & Skaalvik, S. (2020). Teacher burnout: Relations between dimensions of burnout, perceived school context, job satisfaction and motivation for teaching. A longitudinal study. *Teachers and Teaching, 26*(7-8), 1–15.
<https://doi.org/10.1080/13540602.2021.1913404>

- Soini, T., Pietarinen, J., Pyhältö, K., Haverinen, K., Jindal-Snape, D., & Kontu, E. (2019). Special education teachers' experienced burnout and perceived fit with the professional community: A 5-year follow-up study. *British Educational Research Journal*, *45*(3), 622–639. <https://doi.org/10.1002/berj.3516>
- Steiner, E. D., & Woo, A. (2021, June 15). *Job-related stress threatens the teacher supply: Key findings from the 2021 state of the U.S. teacher survey*. www.rand.org.
https://www.rand.org/pubs/research_reports/RRA1108-1.html.
- Traub, M. R., Joslyn, P. R., Kronfli, F. R., Peters, K. P., & Vollmer, T. R. (2017). A model for behavioral consultation in rural school districts. *Rural Special Education Quarterly*, *36*(1), 5–16. <https://doi.org/10.1177/8756870517703404>
- Trochim, W. M. (2019). *Social research methods*. socialresearchmethods.net.
<https://www.socialresearchmethods.net/>
- U.S. Department of Education. (2015). *The NCES fast facts tool provides quick answers to many education questions (national center for education statistics)*. [Ed.gov](http://ed.gov); National Center for Education Statistics. <https://nces.ed.gov/fastfacts/display.asp?id=59>
- U.S. Department of Education. (2017). *Individuals with Disabilities Education Act*. Individuals with Disabilities Education Act. <https://sites.ed.gov/idea/about-idea/#IDEA-Purpose>
- University of Minnesota. (2022). *(MSQ) Minnesota Satisfaction Questionnaire | Vocational Psychology Research*. [Umn.edu](http://umn.edu). <https://vpr.psych.umn.edu/msq-minnesota-satisfaction-questionnaire>
- Walker, V., Douglas, K., & Chung, Y.-C. (2017). An evaluation of paraprofessionals' skills and training needs in supporting students with severe disabilities. *INTERNATIONAL*

JOURNAL of SPECIAL EDUCATION, 32(3).

<https://files.eric.ed.gov/fulltext/EJ1184152.pdf>

Weiss, D. J., Gibson, D. L., Dawis, R. V., & Lofquist, L. H. (1977). *Minnesota Satisfaction Questionnaire*. University of Minnesota.

Wiggs, N. B., Reddy, L. A., Bronstein, B., Glover, T. A., Dudek, C. M., & Alperin, A. (2021). A mixed-method study of paraprofessional roles, professional development, and needs for training in elementary schools. *Psychology in the Schools*, 58(11), 2238–2254.

<https://doi.org/10.1002/pits.22589>

Williams, J., & Dikes, C. (2015). The implications of demographic variables as related to burnout among a sample of special education teachers. *Education*, 135(3), 337–345.

<https://eric.ed.gov/?id=EJ1095411>

Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being. *Review of Educational Research*, 86(4), 981–1015. <https://doi.org/10.3102/0034654315626801>

Appendix A

RECRUITMENT POST



I am looking for Behavior Technicians who work in public schools who would be willing to participate in a voluntary study as part of a doctoral dissertation through the University of New England!

Purpose: The purpose of this study is to better understand the factors related to job satisfaction and other job-related attitudes of behavior technicians who work in public schools.

Who: You are eligible to participate in the research study if all of the following are true about you.

- 18 years or older
- Work full-time within a public school setting either hired by the district or local ABA company for at least six months
- Assist teachers in the supervision of student(s) presently being served by the Case Supervisor, BCBA, Behavior Support Team, etcetera
- Work primarily one-on-one or with a small group of students
- Assists in the implementation of Behavior Intervention Plans
- Monitors responsiveness to Behavior Intervention Plans
- Assists in the data collection of students behaviors
- Implements Crisis Management Protocols
- If applicable, conduct services based on the student's IEP

If you do not meet the description and criteria noted above, you are not able to be in the study.

If you know someone who meets the criteria, please feel free to share this posting directly with them.

Your perspective as a Behavior Technicians is very important. By completing the electronic survey your input along with others will confidentially be compiled and produce data that may help to provide insight to the challenges presented by Behavior Technicians who work in public schools

How: If you are interested in potentially participating in the research study, please click the link below, which will take you to the electronic survey that includes informed consent, the two surveys, and demographic questions. The period for a response is eight weeks from the initial post of this information on social media. For confidentiality reasons and to ensure validity of research data, please do not respond directly to this social media thread or make public comments regarding the study. I appreciate your cooperation and support!

Appendix B

PERMISSION FROM SCHOOL-BASED ABA ADMIN

Facebook Messenger Conversation with School-Based ABA Admin

Dita, Tracy, Kevin

You created this group

Sat 10:29 AM

You sent

Hi there, I am currently writing my dissertations regarding burnout and job satisfaction of behavior technicians that work in public schools. I will be utilizing an online survey and was interested in potentially posting it on School-Based ABA to find participants. Is this type of post acceptable within your group? My advisor wants me to get written permission from the admin to include within my proposal to ensure this type of post would be allowed. I would post an initial time then up to 2 additional times within 6 weeks unless I get the 100 participants without needing the additional posts. I hope this would be acceptable and look forward to hearing back from you!

Sat 2:48 PM

Dita replied to you

Yes I think that's great. It's an important topic across the field. Techs at schools is just the start. Techs in all locations and professionals at all levels are experiencing burn out. Thank you for asking and best of luck in your studies.

Appendix C

SCHOOL-BASED ABA GROUP POSITING RULES

Welcome to School-based ABA. Be sure to check out our rules before posting and commenting.

DO NOT ENGAGE IN TREATMENT PLANNING

Providing clinical advice or assistance without direct supervision of a specific individual or case is against the BACB code of conduct. This includes asking for specific advice on how to treat a specific topography.

Respect the Diversity of Our Audience

This group is open to parents, teachers, admins, OT/PT/Spch, counselors, social workers, psychs, persons w/disabilities, community members & other Behavior Analysts to share/learn about ABA in Schools

Be Empathetic: Understand Each Others Viewpoint

◆ Be kind, respectful, understanding, sympathetic, and reflective to each other.

◆Special Note to Board Certified Behavior Analysts

Please remember to adhere to the BACB Professional and Ethical Compliance Code

(<https://www.bacb.com/ethics/ethics-code>).

◆DO ASK about....

◆DO ASK about resources, publications, methods, skills, hey what does ?? mean, bring up ethical issues, --and when in doubt---ask. DO NOT ASK FOR TREATMENT

RECOMMENDATIONS for a SPECIFIC CASE

Advertisements and Job Postings

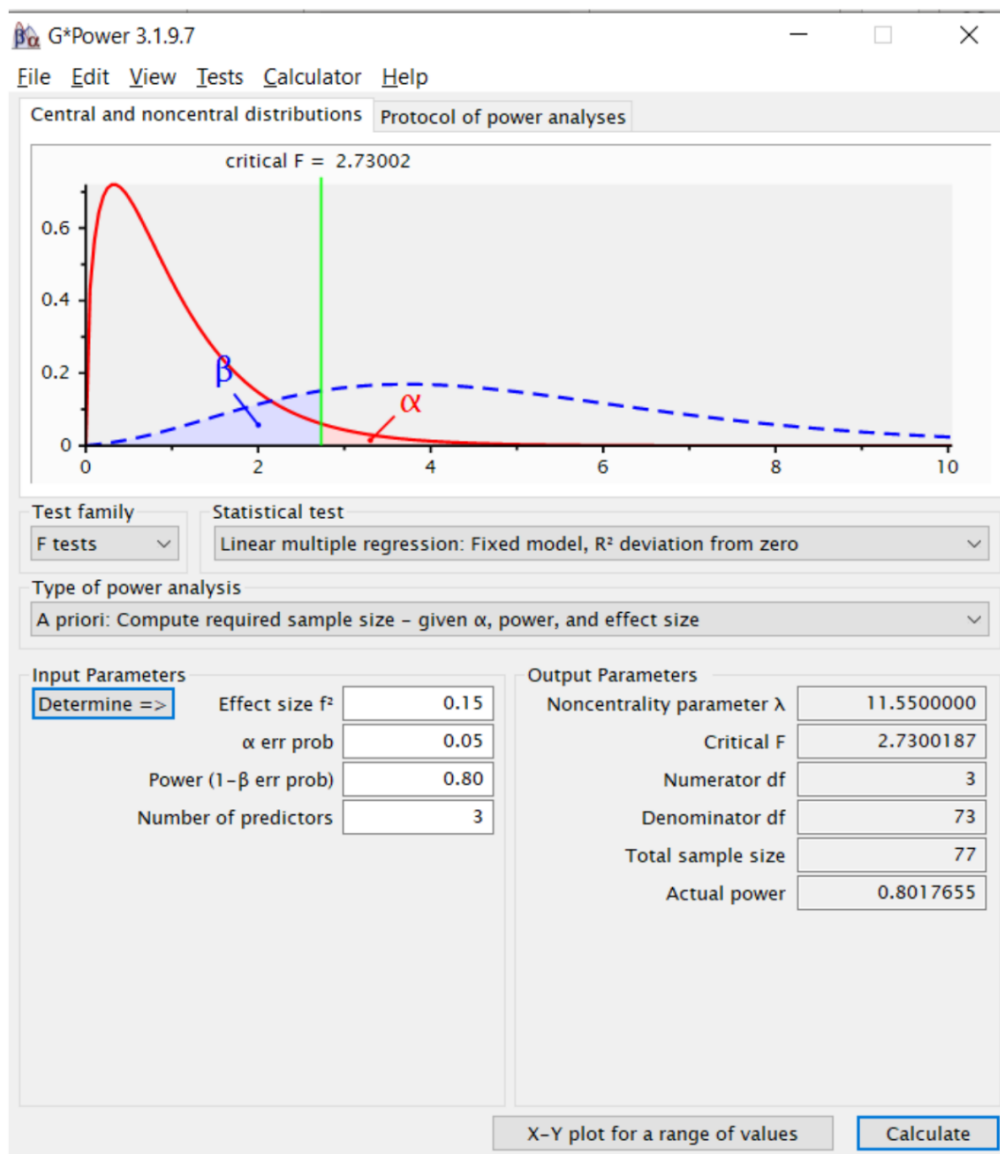
◆Please keep Advertisements and Job Postings for your business to a minimum, we will remove them if they become excessive. The Admins have chosen Mondays as "Job posting" days.

Admins Reserve the Right

The School-Based ABA admins reserve the right to close a discussion, delete/approve posts, and remove/ban members for egregious posts that are unproductive or do not adhere to the rules of the page

Appendix D

G*POWER



Appendix E

MASLACH BURNOUT INVENTORY – EDUCATORS SURVEY

MBI for Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How often
0-6

Statements:

1. _____ I feel emotionally drained from my work.
15. _____ I don't really care what happens to some students.
19. _____ I have accomplished many worthwhile things in this job.

Appendix F

BURNOUT INVENTORY (MBI) - REMOTE ONLINE SURVEY LICENSE

Terms of Use for Remote Online Survey License

The Remote Online Survey License is a data license for **research purposes only**. This license grants you permission to collect and disclose (a) item scores and scale scores, (b) statistical analyses of those scores (such as group average, group standard deviation, T-scores, etc.) and (c) pre-authorized sample items only, as provided by Mind Garden, for results write-up and publication.

For example, with purchase of the Remote Online Survey License and when presenting your findings:

- **You may** share the group's mean scale scores with survey participants and others.
- **You may not** share item text in publications with the exception of the pre-authorized sample items included with license purchase.
- **You may not** copy, modify, or paraphrase content from Mind Garden Individual Reports and release that content to your survey participants or others.

Note: this list illustrates some permitted and prohibited uses of the instrument and is not meant to be all-encompassing.

The instrument items, directions, manual, individual report, group report, and any other descriptive information available through Mind Garden is the intellectual property of the copyright holder and can be used only with purchase or written permission from Mind Garden.

Distributing an entire instrument in either the text of an email or as an email attachment is strictly prohibited.

The Remote Online Use Application requires the following information, which is subject to verification.

- Name
- Email address
- Company/institution
- Mind Garden order or invoice number
- Mind Garden instrument name
- The remote online survey website that you will be using.

Additionally, we require agreement to the following conditions of use.

- I will administer this Mind Garden instrument for research purposes only.
- I will not send Mind Garden instruments in the text of an email or as a PDF file to survey participants.
- I will put the instrument copyright statement (from the footer of my license document; includes the copyright date, copyright holder, and publisher details) on every page containing questions/items from this instrument.
- I will send screenshots of my online survey to info@mindgarden.com so that Mind Garden can verify that the copyright statement appears.
- I will compensate Mind Garden, Inc. for each license use; one license is used when a participant first accesses the online survey.
- I will track my license use.
- Once the number of administrations reaches the number purchased, I will purchase additional licenses or the survey will be closed to use.

- I will remove this online survey at the conclusion of my data collection and I will personally confirm that it cannot be accessed.

Please note: if you cannot build and administer your online survey in compliance with our conditions of use, we will not approve your application.

CAUTION: If you do not require a unique login for each respondent, the survey method you use may elicit a large number of responses to your survey. You are responsible for compensating Mind Garden for every administration, regardless of circumstances.

Appendix G

NOTE TO ADMINISTRATORS

Note to Survey Administrators

Avoid Sensitization to Burnout. People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the labels used on the survey do not include the word “burnout”. You will often see survey administrators use one of the following acceptable terms or similar wording on the survey or referring to it:

- MBI Assessment
- Wellness Survey
- Job Attitudes Assessment
- Employee Well-Being Survey

The scale should be presented as a survey of job-related attitudes and not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then an explanation about burnout and the use of the MBI to assess it is appropriate.

Appendix H

DEBRIEFING SHEET

Debriefing Sheet Version Date:	<i>11/13/2022</i>
IRB Project #:	
Project Title:	Burnout and Job Satisfaction of Behavior Technicians working in Public schools: A Quantitative Correlational Study
Principal Investigator (PI):	Sara Dougherty
PI Contact Information:	Sbarnes5@une.edu , (508)933-7491

Thank you for your participation in our study! Your participation is greatly appreciated.

WHAT IS THE PURPOSE OF THIS PROJECT?

Earlier in our participant information sheet we informed you that the purpose of the study:

- Better understand the factors related to job satisfaction and other job-related attitudes of behavior technicians who work in public schools.

In actuality, the study is about:

- Better understand the factors related to job satisfaction and **burnout** of behavior technicians who work in public schools.

HOW WAS DECEPTION USED?

- The term job-related attitudes was used instead of burnout and you were not made aware that the MBI-ES survey specifically assessed burnout.

WHY WAS DECEPTION USED?

- To minimize the sensitivity to the term due to people having widely varying beliefs about burnout

IMPORTANCE OF THE PROJECT

- The study is important to ensure that high rates of burnout and low job satisfaction experienced by teachers and paraprofessionals, that has resulted in high rates of attrition, does not also impact Behavior Technicians in public school settings.

Unfortunately, in order to properly test our hypothesis, we could not provide you with all of these details prior to your participation. This ensures that your reactions in this study were spontaneous and not influenced by prior knowledge about the purpose of the study. If we had told you the actual purposes of our study, your ability to answer the survey questions without bias could have been affected. We regret the deception but we hope you understand the reason for it.

CONFIDENTIALITY:

Please note that although the purpose of this study has changed from the originally stated purpose, everything else on the consent form is correct. This includes the ways in which we will keep your data confidential. All responses to the survey will be anonymous. Survey data will be stored on a password protected personal computer only accessed by the researcher. Once the retention period for the data has been met (at least 3 years), the data will be disposed of in accordance to the Belmont principles.

Now that you know the true purpose of our study and are fully informed, you may decide that you do not want your data used in this research. If you would like your data removed from the study and permanently deleted, please select “disagree” below.

Please do not disclose research procedures and/or hypotheses to anyone who might participate in this study in the future as this could affect the results of the study.

FINAL REPORT:

If you would like to receive a copy of the final report of this study (or a summary of the findings) when it is completed, please feel free to contact us.

USEFUL CONTACT INFORMATION:

If you have any questions or concerns regarding this study, please feel free to contact the researcher, Sara Dougherty, Sbarnes5@une.edu.

If you have other concerns about this study or would like to speak with someone not directly involved in the research study, you may contact the Office of Research Integrity at (207) 602-2244 or via e-mail at irb@une.edu.

Please keep a copy of this form for your future reference. Once again, thank you for your participation in this study!

Do you still consent to participate in this study after review of the debriefing form?

Agree

Disagree

Appendix I

PERMISSION FROM MIND GARDEN

Re: [Mind Garden] Message from contact form - General Questions

Mind Garden Inc <info@mindgarden.com>

Mon 7/18/2022 12:08 PM

To:

- Sara Dougherty <sbarnes5@une.edu>

1 attachments (144 KB)

ROSL-Terms-of-Use.pdf;

You don't often get email from info@mindgarden.com. [Learn why this is important](#)

Hello Sara,

Thank you for your interest.

There are two parts to the MBI Remote Online Survey License: the license document; an application in which you agree to our conditions of use (more information in an attachment).

As long as you build and administer the online survey in compliance with our conditions of use, we are agnostic on the platform (many of our customers use REDCap).

We have no conditions on non-MBI items in your online survey, as long as it is clear which items in your survey are the copyrighted MBI ones.

Best wishes,

Ken

Mind Garden, Inc.

Appendix J

MINNESOTA SATISFACTION QUESTIONNAIRE SHORT FORM

Ask yourself: How **satisfied** am I with this aspect of my job?

Very Sat. means I am very satisfied with this aspect of my job.

Sat. means I am satisfied with this aspect of my job.

N means I can't decide whether I am satisfied or not with this aspect of my job.

Dissat. means I am dissatisfied with this aspect of my job.

Very Dissat. means I am very dissatisfied with this aspect of my job.

On my present job, this is how I feel about . . .	Very Dissat.	Dissat.	N	Sat.	Very Sat.
1. Being able to keep busy all the time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The chance to work alone on the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The chance to do different things from time to time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The chance to be "somebody" in the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The way my boss handles his/her workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The competence of my supervisor in making decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Being able to do things that don't go against my conscience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The way my job provides for steady employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The chance to do things for other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The chance to tell people what to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The chance to do something that makes use of my abilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The way company policies are put into practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. My pay and the amount of work I do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The chances for advancement on this job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The freedom to use my own judgment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The chance to try my own methods of doing the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The working conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. The way my co-workers get along with each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The praise I get for doing a good job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The feeling of accomplishment I get from the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Very Dissat.	Dissat.	N	Sat.	Very Sat.

Appendix K

MINNESOTA SATISFACTION QUESTIONNAIRE PERMISSIONS

10/30/22, 11:09 AM

(MSQ) Minnesota Satisfaction Questionnaire | Vocational Psychology Research

[One Stop](#) [MyU](#) : [For Students, Faculty, and Staff](#)

Department of Psychology

Vocational Psychology Research

Menu ☰

[Home](#) > [node](#) > (MSQ) Minnesota Satisfaction Questionnaire**(MSQ) Minnesota Satisfaction Questionnaire**

VPR no longer sells the MSQ questionnaires. All forms are available under a [Creative Commons Attribution-NonCommercial 4.0 International License](#). This license allows the instrument to be used for research or clinical work free of charge and without written consent, provided that you acknowledge Vocational Psychology Research, University of Minnesota, as the source of the material in your reproduced materials (printed or electronic). This license does not allow commercial use or reproduction for sale. The MSQ may be used without cost, however, for employee surveys provided that the survey is implemented within an organization and that no charges are made for its use.

VPR and the University of Minnesota do not offer scoring for the MSQ and cannot answer questions about its administration or scoring. Directions for scoring the MSQ are in its manual.

Appendix L

MINNESOTA SATISFACTION QUESTIONNAIRE CREATIVE COMMONS LICENSE

DEED

This page is available in the following languages:



Creative Commons License Deed

Attribution-NonCommercial 4.0 International (CC BY-NC 4.0)

This is a human-readable summary of (and not a substitute for) the [license](#).

You are free to:

Share — copy and redistribute the material in any medium or format

Adapt — remix, transform, and build upon the material

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:



Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.



NonCommercial — You may not use the material for commercial purposes.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Notices:

You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.

No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

Appendix M

MINNESOTA SATISFACTION QUESTIONNAIRE FULL TERMS OF USE

Creative Commons Attribution-Noncommercial 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution-Noncommercial 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 – Definitions.

Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.

Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in accordance with the terms and conditions of this Public License.

Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation, performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For

purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.

Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.

Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights that applies to Your use of the Licensed Material.

Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.

Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.

Licensor means the individual(s) or entity(ies) granting rights under this Public License.

Noncommercial means not primarily intended for or directed towards commercial advantage or monetary compensation. For purposes of this Public License, the exchange of the Licensed Material for other material subject to Copyright and Similar Rights by digital file-sharing or similar means is Noncommercial provided there is no payment of monetary compensation in connection with the exchange.

Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.

Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.

You means the individual or entity exercising the Licensed Rights under this Public License. **Your** has a corresponding meaning.

Section 2 – Scope.

License grant.

Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:

reproduce and Share the Licensed Material, in whole or in part, for Noncommercial purposes only; and

produce, reproduce, and Share Adapted Material for Noncommercial purposes only.

Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public License does not apply, and You do not need to comply with its terms and conditions.

Term. The term of this Public License is specified in Section 6(a).

Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created, and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective

Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a)(4) never produces Adapted Material.

Downstream recipients.

Offer from the Licensor – Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.

No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.

No endorsement. Nothing in this Public License constitutes or may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

Other rights.

Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed Rights, but not otherwise.

Patent and trademark rights are not licensed under this Public License.

To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor

expressly reserves any right to collect such royalties, including when the Licensed Material is used other than for Noncommercial purposes.

Section 3 – License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

Attribution.

If You Share the Licensed Material (including in modified form), You must:

retain the following if it is supplied by the Licensor with the Licensed Material:

identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);

a copyright notice;

a notice that refers to this Public License;

a notice that refers to the disclaimer of warranties;

a URI or hyperlink to the Licensed Material to the extent reasonably practicable;

indicate if You modified the Licensed Material and retain an indication of any previous modifications; and

indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.

You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.

If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.

If You Share Adapted Material You produce, the Adapter's License You apply must not prevent recipients of the Adapted Material from complying with this Public License.

Section 4 – Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database for Noncommercial purposes only;

if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material; and

You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.

For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 – Disclaimer of Warranties and Limitation of Liability.

Unless otherwise separately undertaken by the Licensor, to the extent possible, the Licensor offers the Licensed Material as-is and as-available, and makes no representations or warranties of any kind concerning the Licensed Material, whether express, implied, statutory, or other. This includes, without limitation, warranties of title, merchantability, fitness for a particular purpose, non-infringement, absence of latent or other defects,

accuracy, or the presence or absence of errors, whether or not known or discoverable.

Where disclaimers of warranties are not allowed in full or in part, this disclaimer may not apply to You.

To the extent possible, in no event will the Licensor be liable to You on any legal theory (including, without limitation, negligence) or otherwise for any direct, special, indirect, incidental, consequential, punitive, exemplary, or other losses, costs, expenses, or damages arising out of this Public License or use of the Licensed Material, even if the Licensor has been advised of the possibility of such losses, costs, expenses, or damages. Where a limitation of liability is not allowed in full or in part, this limitation may not apply to You.

The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 – Term and Termination.

This Public License applies for the term of the Copyright and Similar Rights licensed here.

However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.

Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates: automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or

upon express reinstatement by the Licensor.

For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop distributing the Licensed Material at any time; however, doing so will not terminate this Public License.

Sections 1, 5, 6, 7, and 8 survive termination of this Public License.

Section 7 – Other Terms and Conditions.

The Licensor shall not be bound by any additional or different terms or conditions communicated by You unless expressly agreed.

Any arrangements, understandings, or agreements regarding the Licensed Material not stated herein are separate from and independent of the terms and conditions of this Public License.

Section 8 – Interpretation.

For the avoidance of doubt, this Public License does not, and shall not be interpreted to, reduce, limit, restrict, or impose conditions on any use of the Licensed Material that could lawfully be made without permission under this Public License.

To the extent possible, if any provision of this Public License is deemed unenforceable, it shall be automatically reformed to the minimum extent necessary to make it enforceable. If the provision cannot be reformed, it shall be severed from this Public License without affecting the enforceability of the remaining terms and conditions.

No term or condition of this Public License will be waived and no failure to comply consented to unless expressly agreed to by the Licensor.

Nothing in this Public License constitutes or may be interpreted as a limitation upon, or waiver of, any privileges and immunities that apply to the Licensor or You, including from the legal processes of any jurisdiction or authority.

Appendix N

PERMISSION FROM CREATIVE COMMONS

Re: Clarification Regarding Attribution-Noncommercial 4.0 International License

Creative Commons <info@creativecommons.org>

Tue 7/19/2022 3:45 AM

To:

- Sara Dougherty <sbarnes5@une.edu>

You don't often get email from info@creativecommons.org. [Learn why this is important](#)

Hey Sara,

When you find a CC licensed work that you wish to reuse, simply read the license and comply with those terms. As long as you do this, you don't need to ask anyone's permission. We have more than one license so be sure to do your due diligence to find out which one is on the work you wish to reuse.

For instance, say you wanted to use this image of [a beach in Portugal](#). You can view the license by clicking on "Some Rights Reserved" -- you can read there that all you must do is give the creator credit and you have permission to reuse the image.

Here are some tips for giving

credit: https://wiki.creativecommons.org/wiki/Best_practices_for_attribution

If you want to use the work in a way that is not permitted by the license (for example, if you want to include an NC-licensed work in something that you plan to make money from), you must ask the author! CC can't give permission for this, only the author or copyright holder can.

Hope this helps!

Connor

Appendix O

DEMOGRAPHIC QUESTIONNAIRE

Please answer the questions below:

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 identity?

0=Male

1=Female

2=Transgender

3=Non-binary/non-conforming

4=prefer not to answer

Write in:

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 months/years have you been a Behavior Technician?

0= less than 6 months

1= 6-12 months

2= 1-2 years

3= 3-5 years

4= 5+ years

5. How many months/years have you been a Behavior Technician in Public Schools?

0= less than 6 months

1= 6-12 months

2= 1-2 years

3= 3-5 years

4= 5+ years

6. What is your job title?

Write in

7. Highest degree earned?

0= High School Diploma/GED

1= Associates Degree

2= Bachelor's Degree

3= Master's Degree

4= Specialist Degree

5= Doctoral Degree

8. What state do you work?

Write in

9. Are you certified as a Registered Behavior Technician?

0= Yes

1= No

Appendix P

MASLACH BURNOUT INVENTORY- EDUCATORS SURVEY SCORING GUIDE

**MBI – Human Services, Medical Personnel, and Educators Scoring Key
Emotional Exhaustion (EE) Subscale**

Directions: Line up this scoring key with the MBI survey form. Sum the survey responses on EE items # 1, 2, 3, 6, 8, 13, 14, 16, and 20 that correspond to the unshaded areas on this scoring key. Enter this EE total score on the survey form. Divide the EE total score by the number of answered EE items for an EE average score. Research usually reports the average score.

**MBI – Human Services, Medical Personnel, and Educators Scoring Key
Depersonalization (DP) Subscale**

Directions: Line up this scoring key with the MBI survey form. Sum the survey responses on DP items # 5, 10, 11, 15, and 22 that correspond to the unshaded areas on this scoring key. Enter this DP total score on the survey form. Divide the DP total score by the number of answered DP items for a DP average score. Research usually reports the average score.

**MBI – Human Services, Medical Personnel, and Educators Scoring Key
Personal Accomplishment (PA) Subscale**

Directions: Line up this scoring key with the MBI survey form. Sum the survey responses on PA items # 4, 7, 9, 12, 17, 18, 19, and 21 that correspond to the unshaded areas on this scoring key. Enter this PA total score on the survey form. Divide the PA total score by the number of answered PA items for a PA average score. Research usually reports the average score.

Appendix Q

MINNESOTA SATISFACTION QUESTIONNAIRE SHORT FORM – SCORING GUIDE

Scoring—Response choices for both forms of the MSQ are weighted in the following manner:

<i>Response Choice</i>	<i>Scoring Weight</i>
Very Dissatisfied (VDS)	1
Dissatisfied (DS)	2
Neither (N)	3
Satisfied (S)	4
Very Satisfied (VS)	5

Thus, responses are scored 1 through 5 proceeding from left to right in the answer spaces. Scale scores are determined by summing the weights for the responses chosen for the items in each scale.

The three scales of the short-form MSQ consist of the following items:

<i>Scale</i>	<i>Items</i>												
Intrinsic	1	2	3	4	7	8	9	10	11	15	16	20	
Extrinsic	5	6	12	13	14	19							
General satisfaction	1	2	3	4	5	6	7	8	9	10	11	12	13
	14	15	16	17	18	19	20						

Appendix R

PARTICIPANT INFORMATION SHEET

Participant Information Sheet

Information Sheet Version	
Date:	<i>11/13/2022</i>
IRB Project #:	
Principal Investigator (PI):	Sara Dougherty
PI Contact Information:	<i>Sbarnes5@une.edu, (508)933-7491</i>

INTRODUCTION

- This is a project being conducted for research purposes.
- The intent of the Participant Information Sheet is to provide you with pertinent details about this research project.
- You are encouraged to ask any questions about this research project, now, during or after the project is complete.
- Your participation is completely voluntary.
- The use of the word ‘we’ in the Information Sheet refers to the Principal Investigator and/or other research staff.
- If you decide to participate, you have the right to withdraw from this research project at any time without penalty.

If you choose to withdraw from this project, any data collected will be deleted and will not be used in the project.

WHAT IS THE PURPOSE OF THIS PROJECT?

The general purpose of this research project is to:

- Better understand the factors related to job satisfaction and other job-related attitudes of behavior technicians who work in public schools
- For scientific reasons, this Information Sheet does not contain all of the information about the research question being tested. The Principal Investigator will give you more information when your participation in the project is over.

Why is this important?

- Educators have indicated certain job-related attitudes as one of the main reasons for leaving the field
- Educators also indicate that managing challenging behaviors is one of the most stressful components of their job.
- There is a need to ensure that certain job-related attitudes and low job satisfaction experienced by teachers and paraprofessionals, that has resulted in high rates of attrition, does not also impact Behavior Technicians in public school settings.

This study will entail the completion of an online survey including questions related to demographics, job-related attitudes, and factors of job satisfaction. The data will then be reviewed to determine if certain job-related attitudes predict low job satisfaction. This research project is being conducted as part of a dissertation.

WHY AM I BEING ASKED TO PARTICIPATE IN THIS PROJECT?

You are being asked to participate in this research project because you are a Behavior Technician working in a public school setting who:

- Is 18 years or older
- Has worked full-time for at least 6 months
- Supports students with and without disabilities from grades K-12.

What qualifies a Behavior Technicians? Since districts might use different title, below is a list of required job components.

- Assist teachers in the supervision of student(s) presently being served by the Case Supervisor, Board Certified Behavior Analyst, Behavior Support Team, etc.
- Works primarily one-on-one or with a small group of students
- Assists in the implementation of Behavior Intervention Plans
- Monitors responsiveness to Behavior Intervention Plans
- Assists in the data collection of students behaviors
- Implements Crisis Management Protocols
- If applicable, conduct services based on the student's Individualized Education Plan

WHAT IS INVOLVED IN THIS PROJECT?

This study will utilize an online survey consisting of three components for participants to complete, which will be shared via the School-Based ABA group on Facebook to direct participants to the survey on REDCap. The survey shouldn't take longer than 20 minutes to complete.

1. Participants will first agree to participate in the survey
2. Participants will complete the MBI-ES Assessment consisting of 22 items

3. Participants will complete the Minnesota Satisfaction Survey consisting of 20 items
4. Participants will then complete the demographic section consisting of 9 items
5. Finally, participants will review the debriefing form regarding the purpose of this study.

WHAT ARE THE POSSIBLE RISKS OR DISCOMFORTS INVOLVED FROM BEING IN THIS PROJECT?

The risks involved with participation in this research project are minimal and may include:

- Potentially exacerbate the feelings of certain job-related attitudes or low job satisfaction while completing the survey

In order to, minimize the risk:

- Even if a participant agrees to participate, they may choose to decline to answer any questions within the survey or opt out at any time

WHAT ARE THE POSSIBLE BENEFITS FROM BEING IN THIS PROJECT?

There are no likely benefits to you by being in this research project; however, the information we collect may help us understand if certain job-related attitudes predict job satisfaction to inform districts to potentially prevent the turnover of Behavior Technicians in public schools.

WILL YOU BE COMPENSATED FOR BEING IN THIS PROJECT?

You will not be compensated for being in this research project.

WHAT ABOUT PRIVACY AND CONFIDENTIALITY?

The following measures will be taken to protect your privacy and confidentiality:

- All responses to the survey will be anonymous
- Participant consent will be required before completing the survey
- Survey data will be stored on a password protected personal computer only accessed by the researcher
- Once the retention period for the data has been met (at least 3 years), the data will be disposed of in accordance to the Belmont principles.

WHAT IF YOU HAVE QUESTIONS ABOUT THIS PROJECT?

You have the right to ask, and have answered, any questions you may have about this research project. If you have questions about this project, complaints or concerns, you should contact the Principal Investigator listed on the first page of this document.

WHAT IF YOU HAVE QUESTIONS ABOUT YOUR RIGHTS AS A RESEARCH PARTICIPANT?

If you have questions or concerns about your rights as a research participant, or if you would like to obtain information or offer input, you may contact the Office of Research Integrity at (207) 602-2244 or via e-mail at irb@une.edu.

Appendix S

IRB APPROVAL LETTER



INNOVATION FOR A HEALTHIER PLANET

Institutional Review Board
Julie Longua Peterson, Chair

Biddeford Campus
11 Hills Beach Road
Biddeford, ME 04005
(207) 602-2244 T
(207) 602-5905 F

Portland Campus
716 Stevens Avenue
Portland, ME 04103

DATE OF LETTER: December 8, 2022

PRINCIPAL INVESTIGATOR: Sara Dougherty
FACULTY ADVISOR: Audrey Rabas, PhD

PROJECT NUMBER: 1122-07
RECORD NUMBER: 1122-07-01
PROJECT TITLE: Burnout and Job Satisfaction of Behavior Technicians Working in Public-Schools: A Quantitative Correlational Study

SUBMISSION TYPE: Exempt Project
SUBMISSION DATE: 11/14/2022

ACTION: Determination of Exempt Status
DECISION DATE: 12/8/2022

REVIEW CATEGORY: Exemption Category # 2(i)

The UNE Institutional Review Board (IRB) for the Protection of Human Subjects has reviewed the materials submitted in connection with the above referenced project and has determined that the proposed work is exempt from IRB review and oversight as defined by 45 CFR 46.104.

Additional IRB review is not required for this project as submitted. However, if any changes to the design of the study are contemplated (e.g., revision to the protocol, data collection instruments, interview/survey questions, recruitment materials, participant information sheet, and/or other IRB-reviewed documents), the Principal Investigator must submit an amendment to the IRB to ensure the requested change(s) will not alter the exempt status of the project.

Please feel free to contact me at (207) 602-2244 or irb@une.edu with any questions.

Best Regards,

A handwritten signature in black ink that reads "Bob Kennedy". The signature is written in a cursive, flowing style.

Bob Kennedy, MS
Director, Research Integrity

Appendix T
DURBIN WATSON

MBI vs. MSQ General

Model	R	R^2	ΔR^2	SE	d
MSQ General	.802 ^a	.644	.629	7.10840	1.749

MBI vs. MSQ Intrinsic

Model	R	R^2	ΔR^2	SE	d
MSQ Intrinsic	.768 ^a	.590	.573	4.68385	1.720

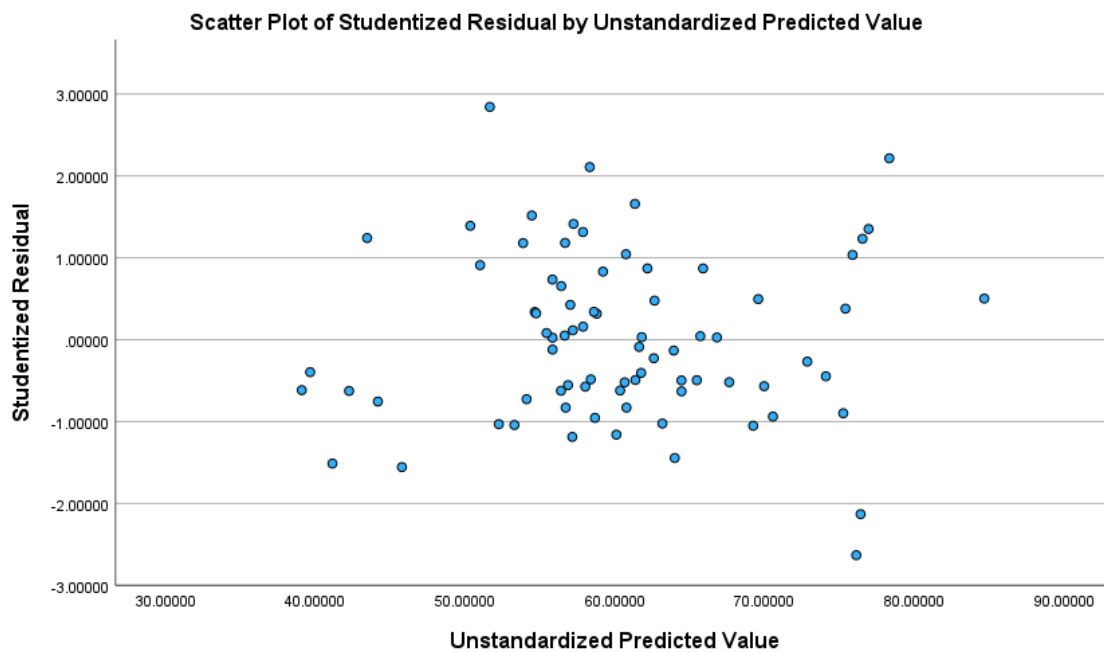
MBI vs. MSQ Extrinsic

Model	R	R^2	ΔR^2	SE	d
MSQ Extrinsic	.735 ^a	.540	.522	3.13165	1.808

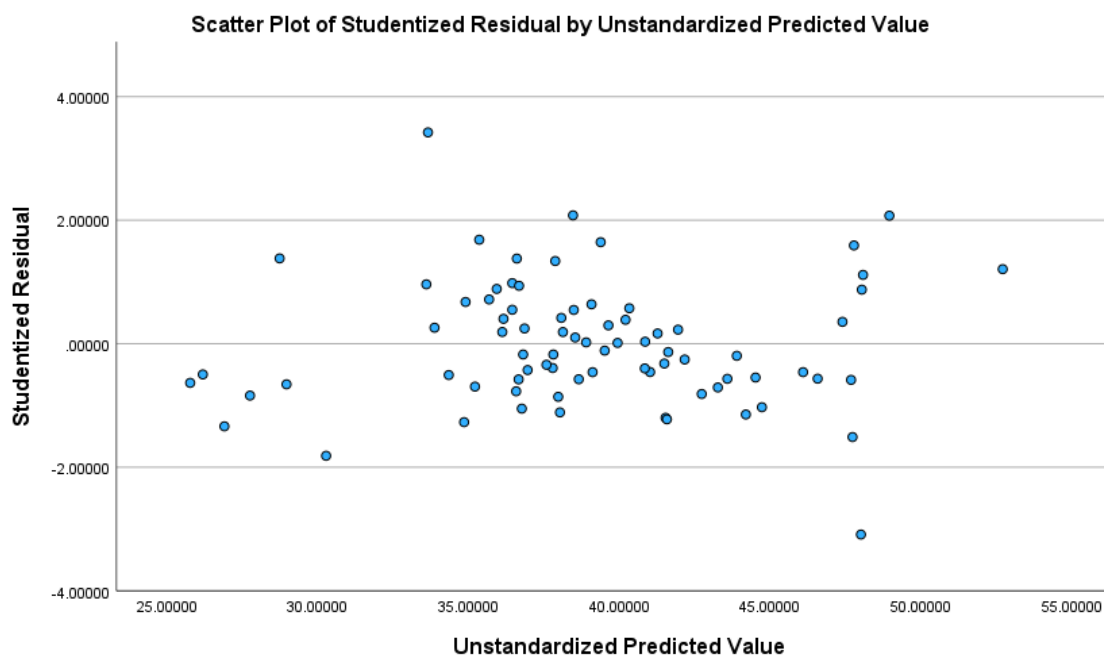
Appendix U

SCATTER PLOTS

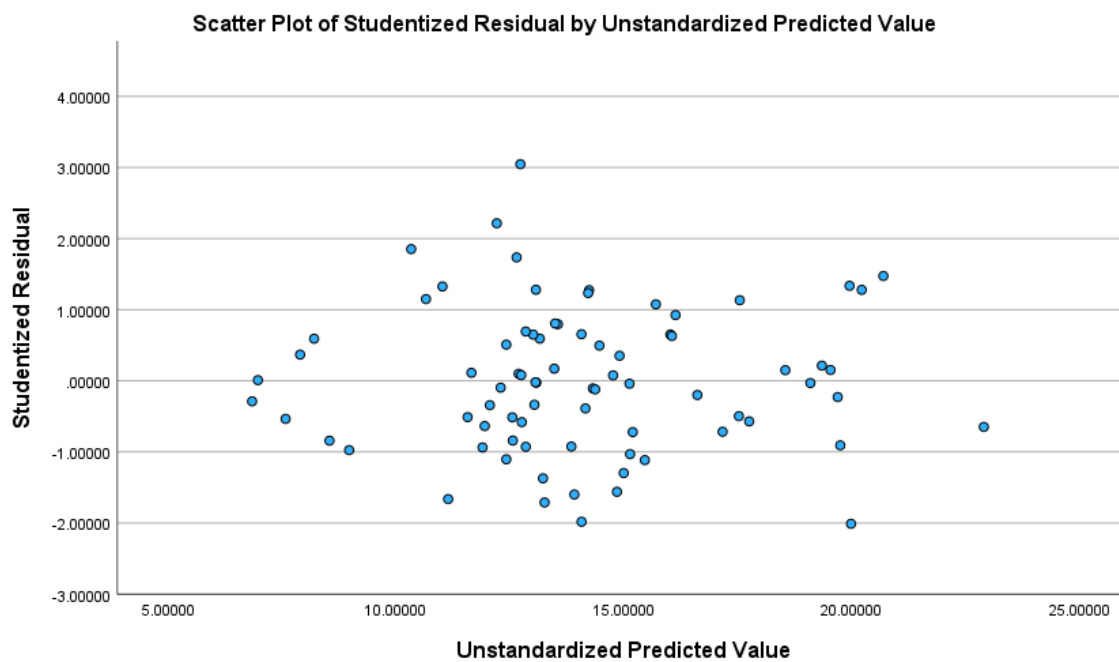
MSQ General vs. Emotional Exhaustion, Depersonalization, and Personal Accomplishment



MSQ Intrinsic vs. Emotional Exhaustion, Depersonalization, and Personal Accomplishment

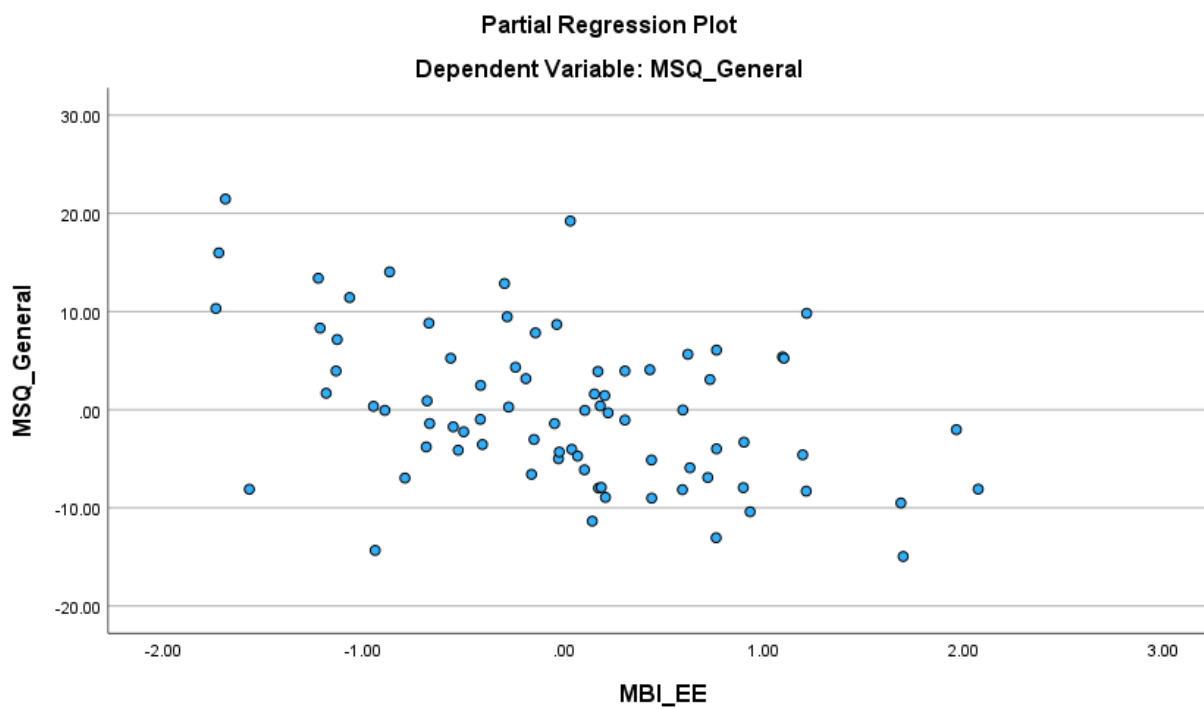


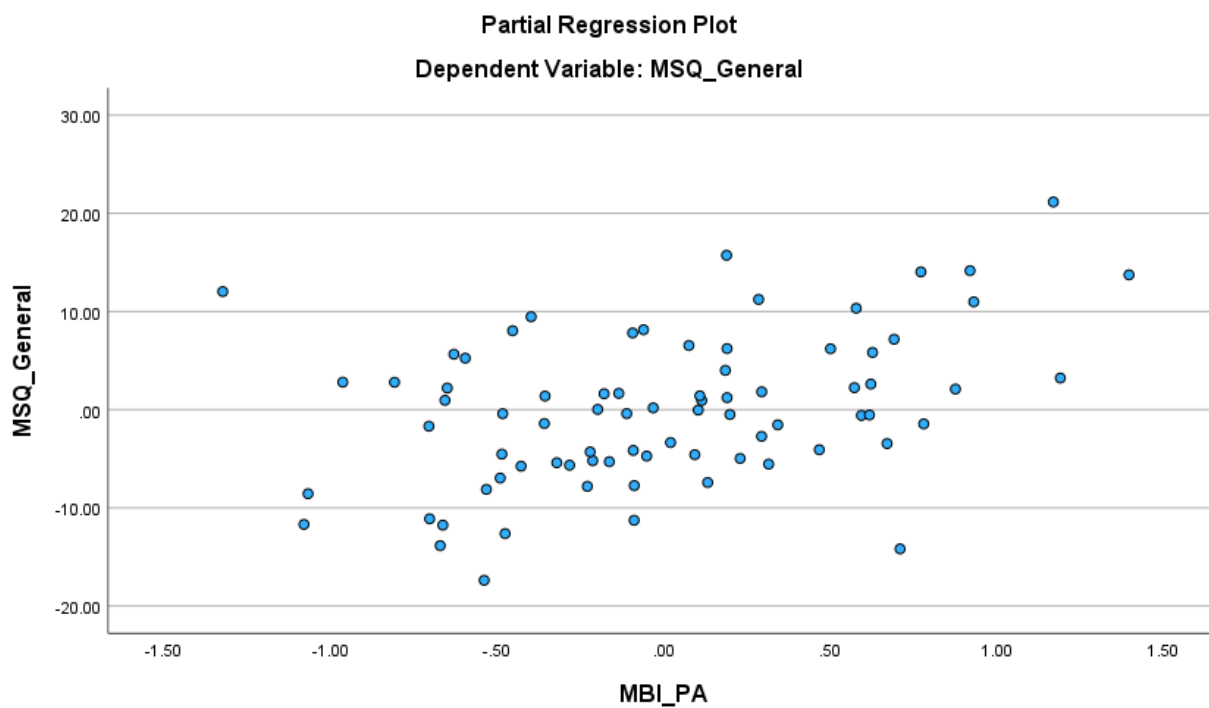
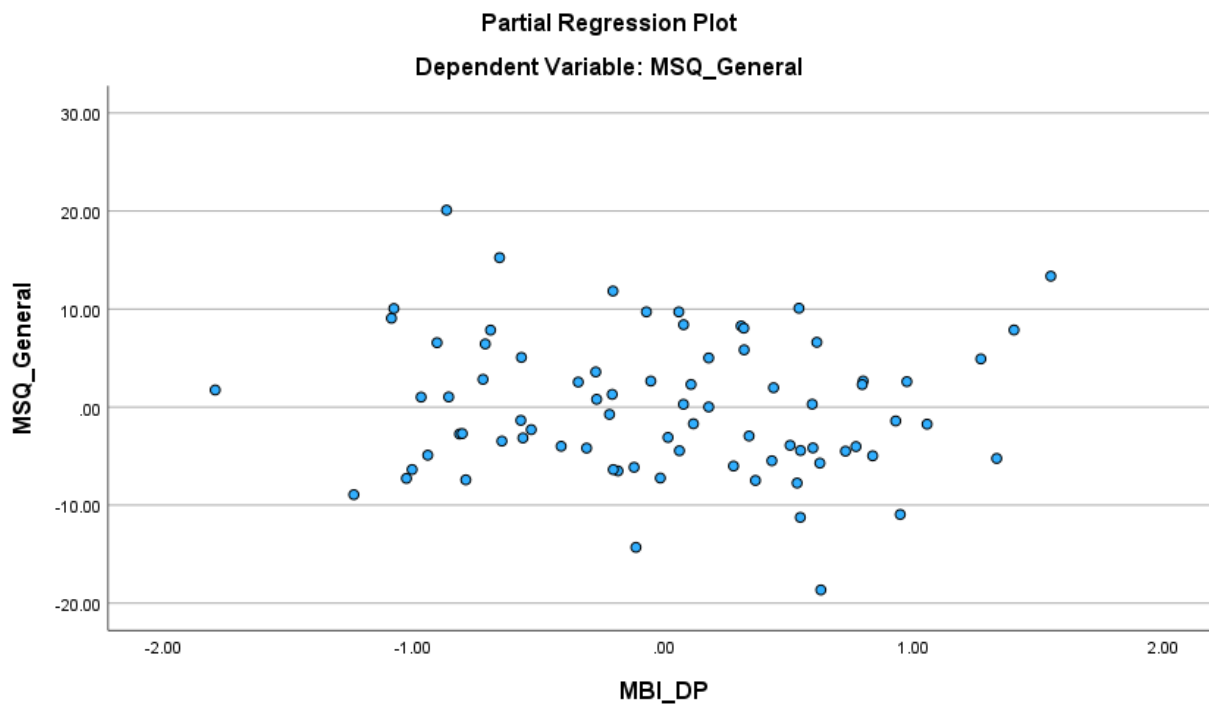
MSQ Extrinsic vs. Emotional Exhaustion, Depersonalization, and Personal Accomplishment

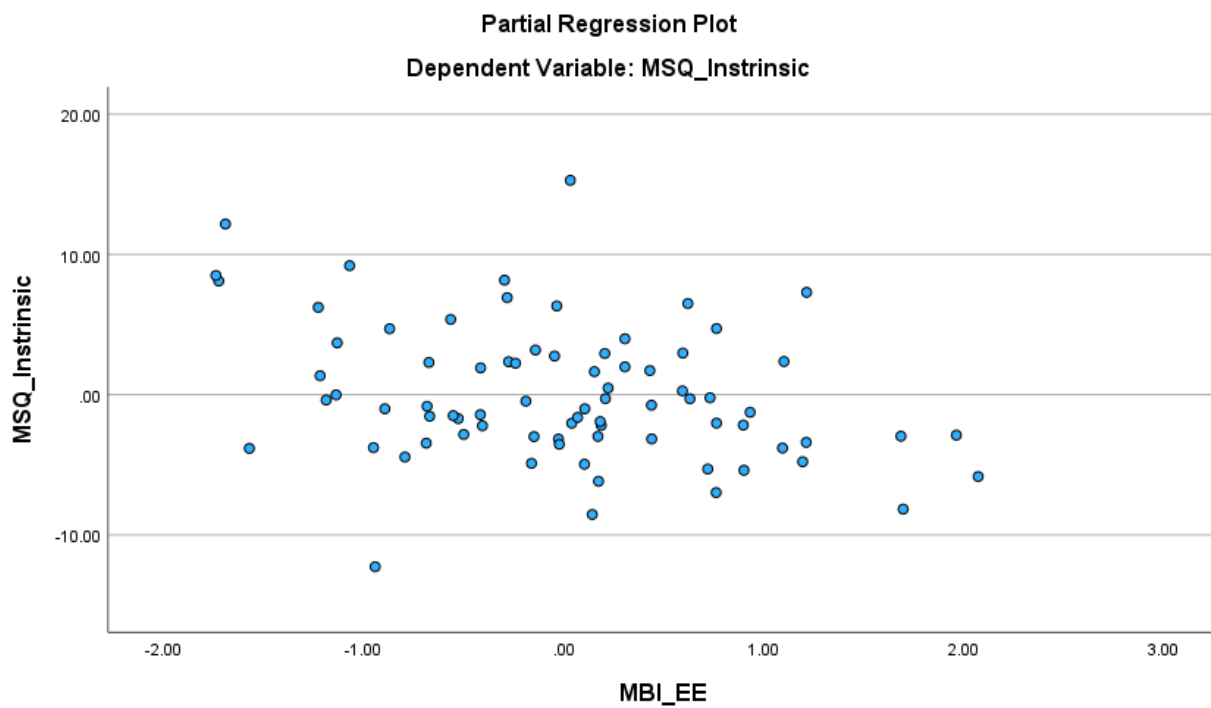


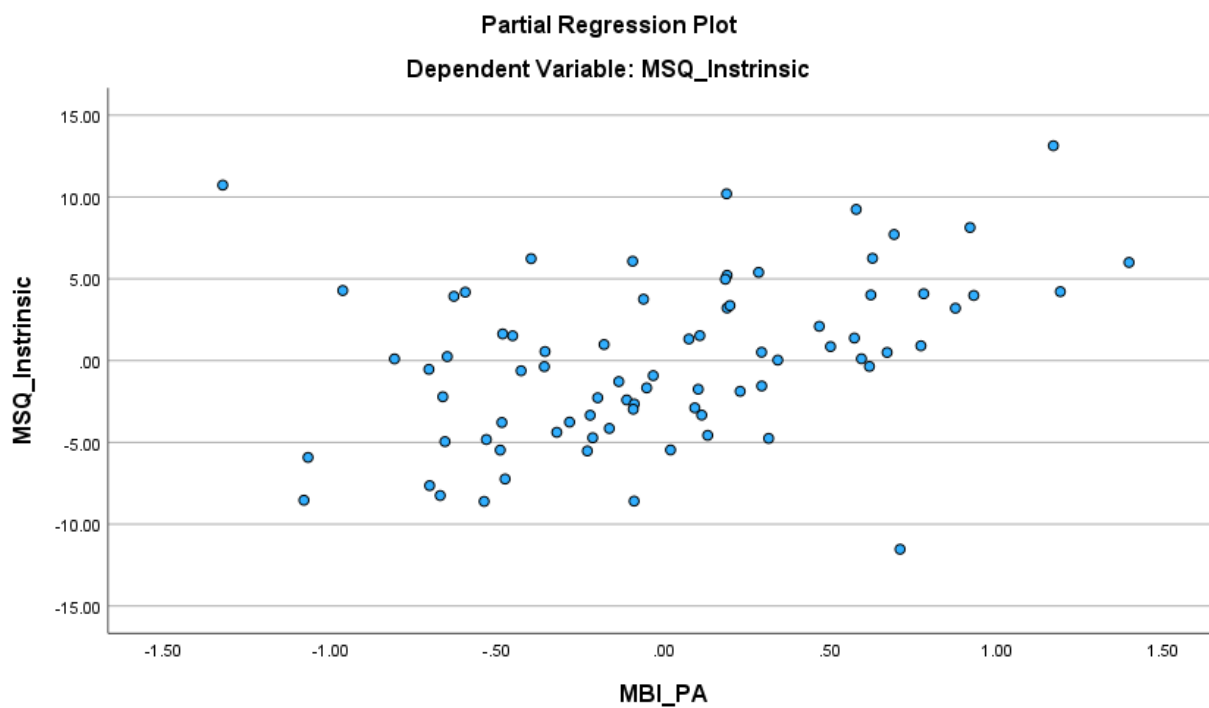
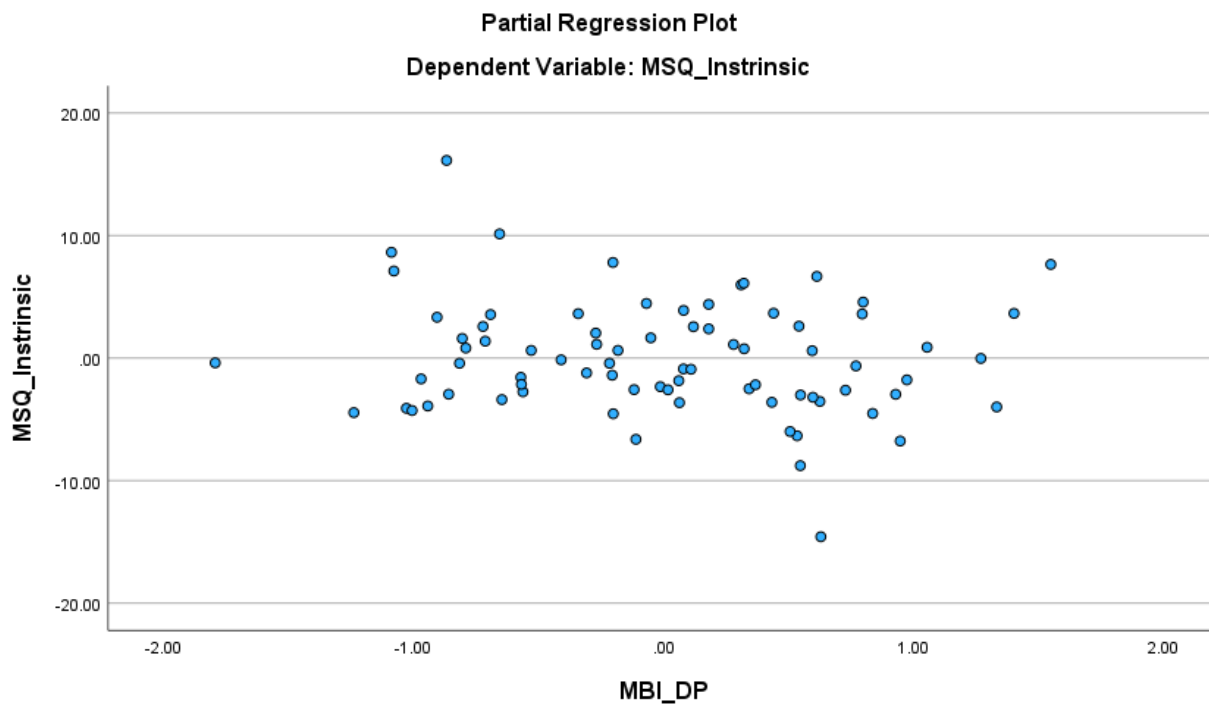
Appendix V

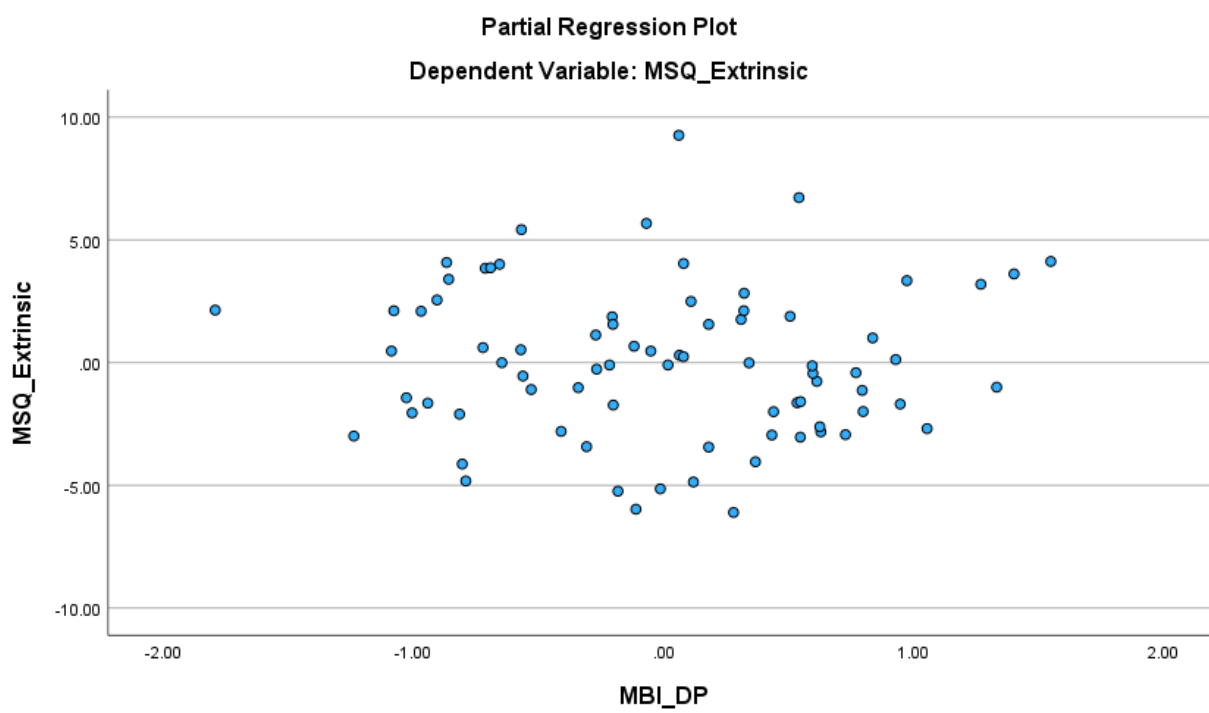
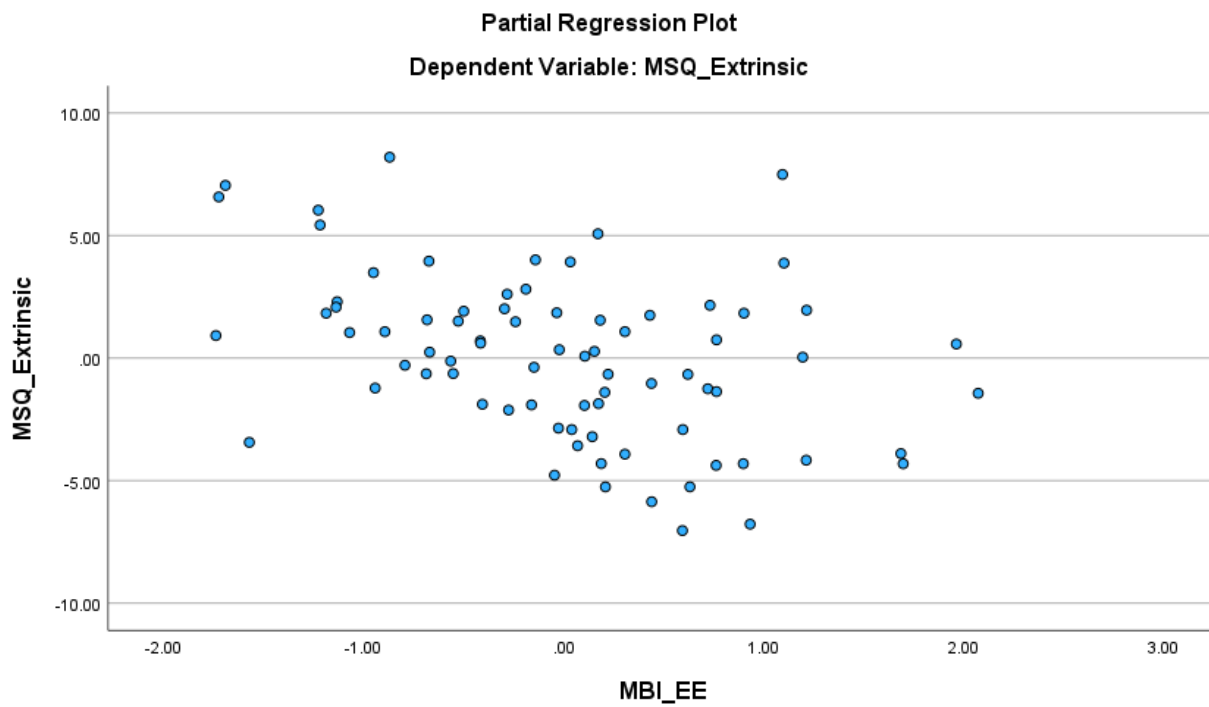
PARTIAL REGRESSION PLOTS

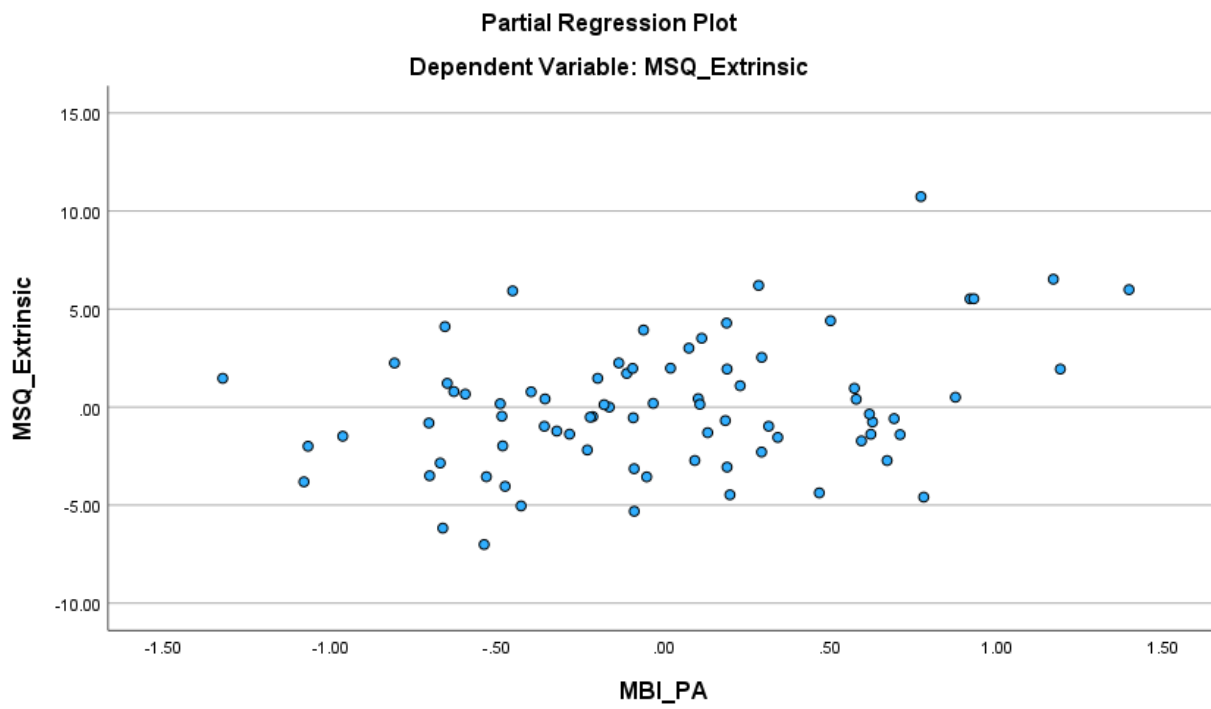












Appendix W

PEARSON CORRELATION AND VIFS

Pearson Correlation MSQ General vs. MBI

Variable	1	2	3	4
1. MSQ_General	-	-.727**	-.685**	.685**
2. MBI_EE	-.727*	-	.758*	-.559*
3. MBI_DP	-.685*	.758*	-	-.681*
4. MBI_PA	.685*	-.559*	-.681*	-

Note. N=78. *p = .000. **p<.001

Collinearity Statistics

Variable	Tolerance	VIF
MBI_EE	.421	2.373
MBI_DP	.329	3.040
MBI_PA	.533	1.878

Appendix X

OUTLIERS, LEVERAGE POINTS, AND INFLUENTIAL POINTS

MSQ General Residual Statistics

Variable	Minimum	Maximum	<i>M</i>	<i>SD</i>
Predicted Value	39.0970	84.6588	60.4359	9.36837
Std. Predicted Value	-2.278	2.586	.000	1.000
Standard Error of Predicted Value	.859	2.660	1.542	.466
Adjusted Predicted Value	39.6895	84.1884	60.4161	9.31657
Residual	-18.11201	19.34996	.00000	6.96855
Std. Residual	-2.548	2.722	.000	.980
Stud. Residual	-2.632	2.843	.001	1.013
Deleted Residual	-19.32490	21.10470	.01980	7.44737
Stud. Deleted Residual	-2.746	2.992	.003	1.029
Mahal. Distance	.137	9.792	2.962	2.424
Cook's Distance	.000	.185	.018	.035
Centered Leverage Value	.002	.127	.038	.031

Note. N = 78.

MSQ Intrinsic Residual Statistics

Variable	Minimum	Maximum	<i>M</i>	<i>SD</i>
Predicted Value	25.7770	52.7075	39.0385	5.50495
Std. Predicted Value	-2.409	2.483	.000	1.000
Standard Error of Predicted Value	.566	1.752	1.016	.307
Adjusted Predicted Value	26.1785	51.9624	39.0323	5.46045
Residual	-14.00860	15.34157	.00000	4.59170
Std. Residual	-2.991	3.275	.000	.980
Stud. Residual	-3.089	3.421	.001	1.013
Deleted Residual	-14.94670	16.73281	.00616	4.90383
Stud. Deleted Residual	-3.288	3.703	.003	1.039

Mahal. Distance	.137	9.792	2.962	2.424
Cook's Distance	.000	.265	.017	.040
Centered Leverage Value	.002	.127	.038	.031

Note. N = 78.

MSQ Intrinsic Casewise Diagnostics

Case Number	Std. Residual	MSQ_Intrinsic	Predicted Value	Residual
10	3.275	49.00	33.6584	15.34157

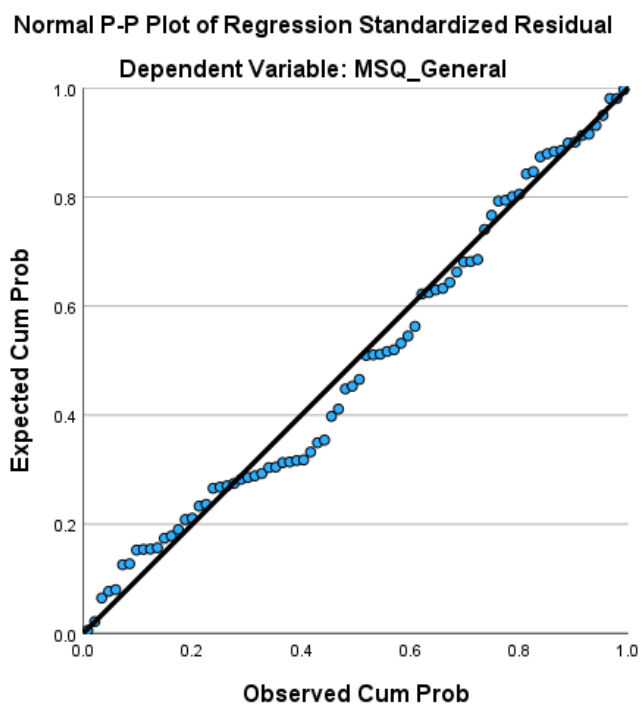
MSQ Intrinsic Residual Statistics

Variable	Minimum	Maximum	M	SD
Predicted Value	6.8460	22.9017	14.0897	3.32764
Std. Predicted Value	-2.177	2.648	.000	1.000
Standard Error of Predicted Value	.378	1.172	.679	.205
Adjusted Predicted Value	6.9683	23.1694	14.0718	3.33241
Residual	-6.07483	9.26753	.00000	3.07004
Std. Residual	-1.940	2.959	.000	.980
Stud. Residual	-2.011	3.046	.003	1.007
Deleted Residual	-6.62434	9.81979	.01797	3.24373
Stud. Deleted Residual	-2.054	3.235	.005	1.022
Mahal. Distance	.137	9.792	2.962	2.424
Cook's Distance	.000	.138	.014	.024
Centered Leverage Value	.002	.127	.038	.031

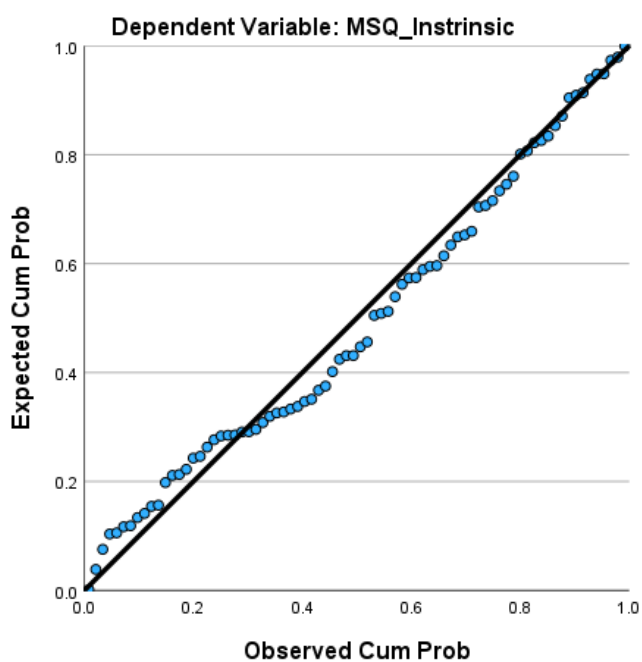
Note. N = 78.

Appendix Y

P-PLOT



Normal P-P Plot of Regression Standardized Residual



Normal P-P Plot of Regression Standardized Residual

