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IS FACEBOOK USE HELPING OR HURTING YOUR HEALTHCARE EMPLOYEES DURING COVID?

A Dissertation

Submitted to the Graduate Faculty of the University of South Alabama in partial fulfillment of the requirements for the degree of

Doctor of Business Administration

in

Management

by Melanie M. Boudreaux B.S., Nicholls State University, 2009 M.B.A., Nicholls State University, 2012 May 2022

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TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	X
CHAPTER I INTRODUCTION	1
CHAPTER II LITERATURE REVIEW AND HYPOTHESES	5
2.1 Key Workplace Outcomes	5
2.1.1 Mental Health	
2.1.2 Counterproductive Work Behavior (CWB)	6
2.1.3 Workplace Social Courage	
2.2 Affective Events Theory (AET)	
2.3 Personality Traits	
2.3.1 Neuroticism	
2.3.2 Extraversion	13
2.4 The Mediating Role of Positive and Negative Affect	14
2.4.1 Positive Affect	
2.4.2 Negative Affect	15
2.5 The Moderating Role of Social Media-Facebook Use	16
CHAPTER III METHODS	20
3.1 Participants	20
3.2 Procedure	21
3.3 Measures	22
CHAPTER IV RESULTS	25
4.1 Analysis	26
4. 2 Measurement Model Evaluation – PLS-SEM	26
4.3 Structural Model Evaluation – PLS-SEM	
4.3.1 Direct Relationships	30
4.3.2 Indirect Relationships- Mediation	30

4.3.3 Indirect Relationships – Moderation	31
4.3.4 Predictive Relevance	31
CHAPTER V DISCUSSION	33
5.1 Theoretical Implications and Future Directions	34
5.2 Practical Implications	
5.3 Limitations	37
5.4 Conclusion	37
REFERENCES	38
APPENDICES	49
Appendix A IRB Approval to Conduct Research	49
Appendix B Codebook for Dissertation Data Collection Collected Fall 2020	50
Appendix C Tables 1 – 10	56
Appendix D Figures 1 – 5	75
BIOGRAPHICAL SKETCH	80

LIST OF TABLES

Appendix Table Page
PLS-SEM: Constructs Measures and Indicator Loadings/Weights— of the Full PANAS Moderated Mediation Model Scale Items Prior to Removal
2. PLS-SEM: Constructs Measures and Indicator Loadings/Weights— of the Full PANAS Moderated Mediation Model after Removal of Low Item Loadings61
3. PLS-SEM: Constructs Measures and Indicators Loadings/Weights— of the Alternate Parsimonious Model after Removal of Low Item Loadings
4. Means, Standard Deviations and Correlations— of the Full PANAS Moderated Mediation Model and Constructs
5. PLS-SEM: Reliability, Validity, and AVEs— of the Full PANAS Moderated Mediation Model and Constructs
6. PLS- SEM Direct Relationships: Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated Mediation Model70
7. PLS- SEM Indirect Relationships (Mediation): Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated Mediation Model71
8. PLS- SEM Indirect Relationships (Moderation): Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated Mediation Model72
9. Means, Standard Deviations and Correlations of the Alternate Parsimonious Model73
10. PLS-SEM: Reliability, Validity, and AVEs of the Alternate Parsimonious Model74

LIST OF FIGURES

Appendix Figure	Page
Full Theoretical Model of PANAS Mediating the Relationship between Neuroticism and Extraversion and Employee Outcomes; Including the Moderating Role of Facebook Use	75
2. Alternate Theoretical Model of PANAS Mediating the Relationship between Neuroticism and Employee Outcomes; Including the Moderating Role of Facebook Use	76
3. PLS-SEM Structural Model with Path Coefficients and Significant Values—Full Model of PANAS Mediating the Relationship between Neuroticism and Extraversion and Employee Outcomes; Including the Moderating Role of Facebook Use	77
4. PLS-SEM Structural Model with Path Coefficients and Significant Values—Alternate Model of PANAS Mediating the Relationship between Neuroticism and Employee Outcomes; Including the Moderating Role of Facebook Use	
5. Simple Slope Moderating Analyses: Significant Moderation of Facebook Use between Positive Affect and Neuroticism	79

LIST OF ABBREVIATIONS

AET Affective Events Theory

AVE Average Variance Extracted

CCA Confirmatory Composite Analysis

CFA Confirmatory Factor Analysis

CWB Counterproductive Work Behaviors

CWBID Counterproductive Work Behavior Interpersonal Deviance

CWBOD Counterproductive Work Behavior Organizational Deviance

DASS Depression Anxiety and Stress Scale

HTMT Heterotrait-Monotrait

PANAS Positive and Negative Affect Scale

PLS-SEM Partial Least Squares Structural Equation Modeling

PPE Personal Protective Equipment

WHO World Health Organization

VIF Variance Inflation Factor

ABSTRACT

Boudreaux, Melanie M., Ph.D., University of South Alabama, May 2021. Is Facebook Use Helping or Hurting Your Healthcare Employees During COVID? Chair of Committee: Matt C. Howard, Ph.D.

The COVID pandemic has drastically impacted peoples' lives and workplaces, especially those who work in healthcare and have been on the forefront battling this global health crisis. There has been great uncertainty regarding how to effectively mitigate health risks due to the pandemic, and many healthcare employees have turned to social media outlets, such as Facebook, to express their thoughts and concerns. However, social media can either play a positive or negative role depending on what type of information is transmitted and how it is perceived. Some employees are more affected by social media than others regarding the pandemic, and people cope differently with this information based on their personality. Two prominent personality traits—extraversion and neuroticism—have been tied to positive and negative affect, respectively. Based on Affective Events Theory (AET), this paper will unpack these crucial relationships to analyze two key personality dimensions of healthcare employees, extraversion and neuroticism, the moderating role of Facebook use, and outcomes at work. This paper's purpose is to empirically investigate how, in the highly COVID affected healthcare industry, these variables impact employee mental health, counterproductive work behavior, and workplace social courage.

Keywords: Neuroticism, Extraversion, Personality, Facebook Use, COVID,

Positive and Negative Affect, Counterproductive Work Behaviors (CWB), Workplace

Social Courage, Mental Health, Healthcare Workers, and Affective Events Theory (AET)

CHAPTER I

INTRODUCTION

Healthcare workers in the United States have been on the frontlines battling COVID since its inception at the beginning of 2020. There are approximately 1.2 million healthcare workers in the U.S. (Ehrlich et al., 2020), and recently, these individuals have been placed under extreme pressure at work. Much of this pressure stems from changing rules and regulations, isolation, quarantine, fear of the unknown, lack of personal protective equipment (PPE), societal and media pressure, and much more (Greenberg et al., 2020). Many of the implications and trauma deriving from this pandemic are still unknown. Healthcare workers, now more than ever, are trying to find a balance between caring for others while caring for themselves, physically and mentally, amid a global health crisis.

Many have turned to social media outlets amid times of stay-at-home orders and social distancing to share and gather news, vent frustrations, connect with others, and more (Hussain, 2020). Social media use has become ubiquitous, and it is often the first thing a person views in the morning and the last thing they look at before going to sleep (Westwood, 2018). According to a Forbes report, seven out of ten employees even use social media during work time (Westwood, 2018). Constantly engaging in social media can potentially affect individuals' thoughts, feelings, and emotions, especially if what is

being viewed on social media is tumultuous (Aalbers et al., 2019; Hussain, 2020). Zhou et al. (2018) also explain that depending on what the employee views on social media, the employee can be greatly affected in all three of the following ways: emotionally, physically, and mentally. Given the additional stressors that healthcare workers face during the COVID pandemic, the following question appears essential to ensure the well-being and continued productivity of healthcare workers: how can healthcare companies help to minimize the negative impacts of social media in the midst of a global pandemic? We utilize Weiss and Cropanzano's (1996) Affective Events Theory (AET) to aid in unpacking these critical relationships.

AET explains how events can be proximal causes of affective reactions, which influences performance and other job-related outcomes. Individuals can be affected differently by various stimuli and events such as: what is viewed on social media sites, the news, the global pandemic, and more. Previous studies have tied personality to affect (Roberts et al., 1998; Smillie et al., 2006; Watson et al., 1998). For example, prior research has supported those individuals who exhibit neuroticism tend to have a more pessimistic view of various stimuli than those lower in neuroticism, which can lead to detrimental work outcomes (Smillie et al., 2006). Conversely, those higher in extraversion tend to have a more optimistic view of stimuli, which can result in beneficial work outcomes (Smillie et al., 2006). However, previous research has not shown how social media, and/or Facebook use specifically, influences the relationship of neuroticism and extraversion to affect and workplace outcomes, especially amid a global pandemic. Thus, this paper expands Affective Events Theory by focusing on these two prominent

personality traits and how Facebook use affects workplace outcomes in healthcare facilities.

Despite significant research on AET and Facebook Use, much is still yet to be known about how these constructs are impacting our workplaces. We contribute to the existing literature in multiple ways. First, the AET framework outlines how one's disposition can lead to positive or negative affective reactions, but we propose that something is missing in this framework. This research begins to provide support for a moderating effect of Facebook use between one's disposition and their affective reactions by changing these relationships. Second, some previous research has focused on the positive implications and benefits of connectivity and networking via social media. However, this research takes a contrasting view by focusing on the negative workplace implications and outcomes stemming from social media use. No author has fully analyzed the impacts on these specific workplace outcomes through the lens of AET, and these relationships can help to partially explain why so many employees are experiencing mental health issues, engaging in counterproductive work behaviors, and lacking in social courage. Thus, our study is the first one of its kind to incorporate two key personality dimensions, extraversion and neuroticism, Facebook use, and workplace outcomes (i.e., mental health, counterproductive work behaviors, and social courage) into the AET framework to identify the extent to which social media is impacting our workplaces.

From these efforts, this paper expands Affective Events Theory via incorporating a moderating effect on these key relationships, which also opens many avenues for future research regarding AET and social media. For example, other negative impacts of social media for employees could include burnout, life satisfaction in general, and more.

Additionally, this study provides practical applications for managers by bringing awareness to the impact of social media, specifically Facebook use, on employees and allows them to better develop policies and procedures to minimize negative employee outcomes and promote more positive employee outcomes. Overall, this paper provides relevant evidence of the important and volatile role social media use has on the workplace, specifically in a healthcare setting.

CHAPTER II

LITERATURE REVIEW AND HYPOTHESES

2.1 Key Workplace Outcomes

Managers are constantly trying to attract and retain the best talent to remain competitive, especially in the healthcare industry where jobs are in high demand (Zhang et al., 2021). To attract and retain healthcare workers, Robinson et al. (2005) explain how one effective approach that managers can utilize is to encourage, support, and promote mental and physical well-being. The mental health of employees is one critical factor to remain successful and competitive in today's business world to promote, attract, and retain top healthcare talent (Robinson et al., 2005). Likewise, some behavioral outcomes such as social courage and counterproductive work behaviors of employees are also key to ensuring the workplace is as productive as possible. Therefore, the current article tests a model to better understand both the mental well-being and behavioral outcomes of healthcare workers, and we begin below by discussing our three primary outcomes—mental health, counterproductive work behaviors (CWBs), and social courage—followed by a discussion that leads to our hypotheses.

2.1.1 Mental Health

Galderisi et al. (2015) explain that the World Health Organization (WHO) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (p. 231). Well-being is a key aspect to maintaining good mental health; however, some with poor mental health experience and are challenged with anxiety, depression, and a lower state of well-being (Galderisi et al., 2015). Mental health issues, specifically depression and anxiety, are some of the leading causes of absenteeism, increased health insurance costs, and longterm sickness in developed countries (Milligan-Saville et al., 2017). Additionally, mental health issues such as depression and anxiety have been linked to lower self-esteem, increased sickness, absenteeism, and other negative outcomes at work (Nieuwenhuijsen et al., 2003). To address this growing concern, many companies are implementing training programs to promote better understanding of mental health and its effects at work (Milligan-Saville et al., 2017). Depression, specifically, has been linked to heart disease, high blood pressure, high cholesterol, and those who suffer from depression are over four times as likely to have a heart attack (Goetzel et al., 2002). These are a few of the negative effects of poor mental health, and health insurance claims and costs for companies can greatly increase when employees experience poor mental health (Knapp, 2003).

2.1.2 Counterproductive Work Behavior (CWB)

All acts of CWB generally share some form of violation of the interests, goals, and activities of an organization (Marcus & Schuler, 2004). Fox et al. (2001) define

CWB as "behaviors that are intended to have detrimental effects on organizations" (p. 292). CWB can stem from a situation or environment where the employee wants to avoid unpleasant work situations or escape from hindrance stressors (Horan et al., 2019). Withdrawal is one form of CWB. Horan et al. (2019) explain withdrawal as "a form of counterproductive work behavior (CWB) in which employees intentionally limit their working time through specific behaviors," which can be particularly costly (p. 82). CWB can also include any of the following: stealing company time, cyber loafing, voluntary absenteeism, aggression, and more (Marcus & Schuler, 2004). These behaviors can be overt and intentional or deviant and passive-aggressive, and stressors have been identified as one of the precursors of CWB (Fox et al., 2001). Karimi et al. (2017) explain how some employees can engage in CWB via job neglect, and other diverting behaviors, as an outlet at work.

If employees are overly stressed and are experiencing negative affect, they could respond by engaging in one or multiple forms of counterproductive work behavior (Fox et al., 2001). Bowling et al. (2011) suggest neuroticism is a predictor of CWB. Job stressors and job strain have also been linked to CWB (Penney & Spector, 2005). Penney and Spector (2005) highlight multiple studies that have discussed the costs and repercussions of CWB, which include "a tremendous negative impact on both organizations in terms of lost productivity, increased insurance costs, lost or damaged property and increased turnover" (p. 778). Marcus and Schuler (2004) identify that certain situations and events can act as triggers, which can cause and/or provoke CWB as a response, such as viewing an upsetting social media post. Therefore, understanding these relations can help increase desired workplace behaviors to increase productivity.

2.1.3 Workplace Social Courage

Courage involves taking risks for the benefits of others, and general courage has various dimensions as explained by Howard et al. (2016). Some of these dimensions include physical courage, moral courage, social courage, and others. Howard et al. (2016) explain that "social courage is a courageous behavior in which the risks involved could damage the actor's esteem in the eyes of others" (p. 675). Additionally, although it is believed to be a unidimensional construct, there are two primary aspects to social courage. The first type of social courage is actions or behaviors that could damage the individual's relationships, and the second type of social courage involves actions that could damage the social image of the individual (Howard et al., 2016).

It takes courage to stand up to others, and courageous actions can involve various individual characteristics such as: bravery, persistence, integrity, and vitality (Sekerka et al., 2009). Sekerka et al. (2009) explains how "courage is needed to be effective within the field of management" (p. 566). Koerner (2014) explains how true courage involves acting morally despite risks or threats, and these courageous acts can influence the way an individual identifies him/herself. It took much social courage for these healthcare workers to show up to work and risk their lives every day amongst much fear, especially at the beginning of the COVID pandemic, when much was still unknown. Howard and Holmes (2019) explain how "typically, social courage behaviors involve risking one's social image and/or damaging their relationships, and both of these risks commonly occur in the workplace" (p. 4). Many nurses and healthcare professionals spoke up courageously to warn people to stay home, wear their masks, social distance, and more, and especially at the beginning of the pandemic, this was met with much resistance

(Gurwitz, 2020). Additionally, these nurses and healthcare workers spoke up utilizing social media. Therefore, employee courage, especially amid a pandemic in healthcare organizations are of critical importance.

2.2 Affective Events Theory (AET)

According to Affective Events Theory, organizational events are proximal bases of affective reactions (Weiss & Cropanzano, 1996). One of the main premises to Affective Events Theory states that a person's traits and outlook plays a role in the way individuals react to various situations and stimuli (Weiss & Cropanzano 1996). Employees' conduct, work behavior, and performance are all products of how these individuals feel in reaction to their environment. Weiss and Cropanzano (1996) discuss that according to Affective Events Theory, "individuals move through their lives both influencing and being influenced by their environments" (p. 39).

Recently, one major shift to the workplace environment stems from COVID.

COVID has spurred situations and events that have affected many, and the workplace is no exception to COVID's wrath. COVID's effects in 2020 and 2021 have shown to be an extremely stressful and mentally-trying situation for many, and this has resulted in many different perceptions and implications for employees and employers (Kniffin et al., 2021). Many employers switched to offering or requiring remote work; employees' lives have been disrupted; many have been isolated; and many are still teleworking (Kniffin et al., 2021). The landscape of the workplace has drastically shifted. Some view these changes as an opportunity, while others view these changes as a threat. According to Bartik et al. (2020), layoffs, closures, increasing unemployment rates, and more have all

affected the resilience of businesses throughout the COVID pandemic. Understandably, the longer the pandemic continues, the more employers and employees will be affected, not only financially, but also mentally. Therefore, many have been and continue to be greatly affected by this global pandemic, some have been able to cope more effectively and efficiently than others, and the way companies have responded and continue to respond are crucial to their success and even existence moving forward.

Based on Affective Events Theory, people react in response to events and situations, like COVID, in their environment; thus, positive and negative affect can stem from various stimuli, events, situations, or more encountered at work and/or at home. Positive affect is defined as individuals feeling pleasant, enthusiastic, alert, and having high energy (Watson et al., 1998). High negative affect is identified as "a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness, with low negative affect being a state of calmness and serenity" (p. 1063).

Thus, much of the way individuals respond to various events and circumstances stems from their affect. People process events and stimuli in different ways based on their affect, and when faced with various events, some cope more efficiently and effectively than others (Rodell & Judge, 2009). Wallace et al. (2009) explain how some events and stimuli can induce positive affective reactions such as increased confidence, performance, courage, and more. If someone is experiencing positive affect, their mental health, social courage, and productivity would also be higher. Conversely, those who are experiencing high levels of negative affect can be tied to mental and even physical responses like sweating, dizziness, nausea, aches and pains, headaches, ulcers, cardiac and breathing

issues, and more (Michie, 2002). Thus, those who are experiencing negative affect would have poorer or diminished mental health (Green et al., 2012), engage more in counterproductive behaviors at work (Whiting & Williams, 2013), and fail to perform social courage behaviors.

Hypothesis 1: Positive affect is positively related to mental health.

Hypothesis 2: Positive affect is negatively related to CWB.

Hypothesis 3: Positive affect is positively related to workplace social courage.

Hypothesis 4: Negative affect is negatively related to mental health.

Hypothesis 5: Negative affect is positively related to CWB.

Hypothesis 6: Negative affect is negatively related to workplace social courage.

2.3 Personality Traits

People respond differently to stressors, stimuli, and events based on their personality (Roberts et al., 1998). Schneider et al. (2012) explain how individuals respond to stressors, stimuli, and events based on the lens through which they view their environment, which is heavily influenced by personality, and personality dimensions tend to be relatively stable (Smillie et al., 2006). Watson et al. (1998) explain how positive and negative affect are linked to two prominent personality traits—neuroticism and extraversion. Thus, it is important to investigate how individuals with these two dominant personality characteristics experience affect, especially in the workplace.

2.3.1 Neuroticism

Roberts et al. (1998) explained neuroticism as being "associated with heightened sensitivity to stressors, high levels of worry, a tendency to experience negative emotions, and it is associated with risk for dysphoria and clinical depression" (p. 403). Numerous studies have tied neuroticism to various undesirable and/or adverse work outcomes such as lower employee performance and motivation, and a greater level of job exhaustion and emotional fatigue and stress at work (Smillie et al., 2006). Much research exists to support that highly neurotic individuals interpret stimuli and stressors more strongly and more negatively than their counterparts (Perry et al., 2008; Schaubroeck et al., 1992; Smillie et al., 2006). In addition, for highly neurotic individuals to cognitively function at an optimal level, they must continuously regulate their negative thoughts to reduce distractions and improve performance (Smillie et al., 2006).

Perry et al. (2008) studied the interaction of neuroticism, conscientiousness, and burnout; the authors found that neurotic individuals are at a higher risk for burnout at work when various stressful events and stimuli are present. Also, those who score higher on the neuroticism scale engage in more counterproductive work behavior as a coping strategy versus those who score lower in neuroticism. Additionally, Robinson et al. (2007) found that neuroticism has been linked to more negative schemas of thinking and found a positive correlation between neuroticism and negative affect. Therefore, consistent with the findings from Schaubroeck et al. (1992), those high in neuroticism are closely associated with negative affect, where these individuals experience greater negative affect when various negative and impacting stimuli and stressors are present.

Hypothesis 7. There is a positive relationship between neuroticism and negative affect.

2.3.2 Extraversion

Extraversion can be defined as a relatively stable personality dimension characterized by a tendency to experience more positive feelings, and those who score higher in extraversion have been linked to being more sociable, talkative, assertive, energetic, warm, and enjoy more social interactions (Jackson & Schneider, 2014). Sur and Ng (2004) explain how extraversion is also related to dominance and ambitiousness, and extroverts are generally associated with higher moods. Since extraverts tend to view and attach more positive aspects to events, research shows that more extroverted individuals tend to utilize better and more positive coping strategies when stressed (Jackson & Schneider, 2014). Extroverts are generally more social, active, assertive, and tend to take more of an optimistic view of the world, positive and/or negative experiences and stimuli, and stressors. Smillie et al. (2015) found that extraversion has been consistently found to be related to positive affect. Additionally, they state that "this finding is consistent with recent studies showing that extraverts are more susceptible than introverts to experimental inductions of more activated positive affective states" (p. 571). Thus, conceptually, those who score higher in extraversion tend to experience more positive affect to various stimuli than those who score lower in extroversion.

Hypothesis 8. There is a positive relationship between extraversion and positive affect.

2.4 The Mediating Role of Positive and Negative Affect

According to Hair et al. (2017), when a construct intervenes between two other and related constructs a mediating effect is created. For the purposes of our research, positive and negative affect help to explain the linkage between individual differences, (i.e., personality) and workplace outcomes. Individual differences, such as personality, can impact how situations and events are perceived, which leads to positive and negative affect, and these affective reactions can impact the behavior one engages in when faced with various situations/events (Rodell & Judge, 2009). Personality traits such as extraversion, openness to experience, agreeableness, etc. has been linked to individuals experiencing more positive perceptions towards experiences and situations, whereas more negative personality traits, such as neuroticism, can increase the probabilities of negative viewpoints of situations or events (Rodell & Judge, 2009). Individuals' traits and outlooks are, therefore, important to the way employees perceive events and stimuli, especially when this comes to managing employees in the workplace (Weiss & Cropanzano, 1996). Thus, according to Affective Events Theory, perceptions and personality traits can elicit positive and negative affect.

2.4.1 Positive Affect

A main premise of Affective Events Theory explains that the organization's environment can either boost or weaken employees' productivity and goals via positive or negative affective responses (Ashton-James & Ashkanasy, 2008). Positive affect-driven behaviors can include creativity and innovation, idea generation, problem-solving abilities, and increased productivity (Amabile et al., 2005). Positive affect is described by

Watson et al. (1998) as a feeling of joy, enthusiasm, energy, and more. When employees feel motivated, task-focused, and are experiencing more positive affect, they can be inspired, put more energy into their jobs, which can spur these more positive workplace outcomes.

Hypothesis 9. Positive affect mediates the relationship between extraversion and mental health, CWB, and workplace social courage.

2.4.2 Negative Affect

Watson et al. (1998) explain how negative affect is identified as "experiencing more negative emotions including anger, contempt, disgust, guilt, fear, and nervousness, with low negative affect being a state of calmness and serenity" (p. 1063). All of these mental and physical negative affective responses can also cause more employees to utilize sick time due to medical issues, and chronic stress can increase health claims (Michie, 2002). Rodell and Judge (2009) explain how these detrimental attitudes and behaviors can be harmful to workplace outcomes. Negative affect-driven behaviors can include various forms of counterproductive work behaviors, emotional outbursts, and rule-breaking tendencies (Amabile et al., 2005). Happell et al. (2014) explain how stressful the healthcare environment can be for nurses, doctors, and other healthcare employees, which is especially relevant in today's pandemic times. Additionally, other sources of pressure on healthcare employees can stem from high workloads, long work hours, unsupportive management, unhappy patients, others' views and comments, social media, and more (Happell et al., 2014).

Ashkanasy and Dorris (2017) describe how these unhappy healthcare employees can become more disengaged at work, which can greatly impact coworkers, patients,

productivity, and more. Therefore, depending on what employees are perceiving and experiencing, this can spur these positive and negative affective reactions which could greatly influence behaviors, outcomes, and productivity in the workplace.

Hypothesis 10. Negative affect mediates the relationship between neuroticism and mental health, CWB, and workplace social courage.

2.5 The Moderating Role of Social Media-Facebook Use

Social media use has become a part of an everyday routine for many, and often it is the first thing a person views in the morning and the last thing they look at before going to sleep (Westwood, 2018). This pattern of behavior can turn into a habit that is hard to break, and constantly looking at and engaging in social media can potentially impact individuals' thoughts, feelings, and emotions. According to a Forbes report, seven out of ten employees use social media during work time (Westwood, 2018). In recent years, social media use has become more utilized than ever before. Social media sites such as Facebook, Twitter, LinkedIn, Instagram, Snapchat, and others are now an integral part of most people's lives.

Many utilize social media to stay connected to friends and family, but social media use can also produce negative outcomes (Zhang et al., 2021). Social media is "a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content" (Kaplan & Haenlein, 2010, p. 61). Many people send messages and posts via Facebook to family and friends to stay in contact. Additionally, many companies utilize social media for advertising, communication, and marketing purposes (Manea et al., 2020). Despite there

being advantages to social media use, negative consequences can also occur with excessive social media use, including stress, information overload, anxiety, and lower productivity (Yu et al., 2018). Additionally, social media use, in itself, at work can be considered counterproductive behavior, which has been found to cost companies up to millions of dollars annually (Zhou et al., 2018). Cronquist and Spector (2011), explain how nurses and healthcare workers using social media are causing concern in the medical industry, especially when it comes to ensuring patients' privacy rights are protected. Due to these reasons and more, many organizations are developing stricter policies and guidelines regarding social media and internet use.

Facebook is currently the largest of the social media platforms with the highest use with over 2.4 billion active users (Brailovskaia et al., 2020). According to Business News Daily, Facebook users encompass more of the ages of the working population than other social media platforms like Instagram, Twitter, and even LinkedIn since older workers, ages 50 and up, do not utilize LinkedIn as much as Facebook (Morrison, 2021). Brailovskaia et al. (2020) explain how those who utilize and engage in social media and Facebook over an hour a day reported lower levels of well-being than those who utilize social media less frequently. While Facebook and various social media platforms can be used to instantly communicate, this can actually lead to technostress and/or information overload (Yu et al., 2018). Yu et al. (2018) describe technostress as stress incurred from excessive technology use and excessive views of upsetting or negative posts, which can spur negative consequences, especially in the workplace. Employees' productivity can be reduced, and people can become affected and/or distracted due to users suffering feelings of conflict and emotional exhaustion.

Yu et al. (2018) also refer to a concept called social media overload, which is when the demands of social media usage become too much. Additionally, Piscotty et al. (2013) explain how "one major negative effect of social media on healthcare workers is the potential to cause distractions and interruptions, and there have been several studies implicating that technology is a contributing factor in causing distractions and interruptions among nurses" (p. 52). Wang et al. (2016) describe an online Facebook experiment where the emotional content of posts on an individual's timelines was manipulated, and they found that those who saw positive content posted more positive content themselves, whereas those who saw more negative content posted more complaints and negative content. Tromholt (2016) mentions that previous studies have found "correlational evidence that Facebook use has several negative effects on people's well-being in terms of depressive symptoms and decreased life satisfaction," and that Facebook use can lead to "declines in the affective dimension of peoples' well-being" (p. 661). Thus, while Facebook and other social media sites can provide some connectedness with others, this connection can also adversely influence peoples' well-being, which can ultimately affect the workplace (Tromholt, 2016).

Weiss and Cropanzano (1996) suggest that according to Affective Events Theory, those who score higher in traits, like neuroticism and extraversion, behave differently than those who score lower on these traits. When neurotic individuals view and engage in posts that are displaying events occurring via social media, they could become more upset and take a negative view of social media posts than those who score lower in neuroticism. Simoncic et al. (2014) found that the outcomes that stem from Facebook use on affect has much to do with personality and gender, especially neuroticism. Abbasi and

Drouin (2019) also found that those higher in traits like neuroticism experienced more negative affect along with more of a negative mood when utilizing Facebook more due to social overload, technostress, jealousy, and even envy. They found that Facebook use could lead to even deteriorating their mood even further.

Overall, employees' work behavior and performance are in part a product of how they feel in reaction to their environment (Weiss & Cropanzano, 1996), and based on Affective Events Theory, various events and stimuli are the bases of these reactions. Thus, managers should be aware of how to minimize negative affect and utilize strategies to best fit their workplace, and this is particularly relevant in the high stress healthcare environment amid a global pandemic.

Hypothesis 11. Facebook use strengthens the positive relationship between neuroticism and negative affect.

Hypothesis 12. Facebook use weakens the positive relationship between extraversion and positive affect.

CHAPTER III

METHODS

3.1 Participants

Respondents were recruited via two methods. The first set of respondents, healthcare workers at a regional hospital, were recruited by a voluntary request to participate in a research survey through their hospital's monthly company newsletter. The monthly newsletters included anonymous links to each of the three surveys, each one month apart. The second set of respondents were recruited via LinkedIn, Facebook, and word of mouth by also asking for healthcare employees to volunteer to complete three rounds of surveys. Email addresses were collected for the second set of respondents, and anonymous survey links were delivered concurrently with the monthly newsletters sent to the first set of respondents. Thus, data for this study was collected over a three-month timeframe.

To qualify, participants had to be working in a healthcare related field. Before any survey questions could be completed, participants had to provide their informed consent. For survey distribution matching purposes, a unique identification was created by combining the answers for the first two characters of their mother's maiden name, city they were born, and date they were born. This unique identifier was used to match respondents across all three waves. If participants did not agree to participate, they could

opt out at any time. If the unique identifiers did not match across the three waves, then these respondents were excluded from the study.

Each survey also included demographic questions such as gender, age, employment status, and work hours per week, among others. Also, attention check questions were placed throughout the surveys (e.g., Mark *Agree* to show that you are paying attention). In total, Survey 1 had 220 respondents, Survey 2 had 121 respondents, and Survey 3 had 115 respondents. However, if the participant did not pass the attention check questions, they were removed from the study. Because this study required the matching of participant's responses across time, the sample size was 71 after employing the validation checks and matching responses over time. Of the 71 respondents, the sample consisted of 63 (89%) females and 8 (11%) males. The average age was 47.78 years old.

3.2 Procedure

The survey included three waves, and each wave was collected one month apart; thus, our study was a time-separated cross sectional designed study. Data was collected at multiple time points to reduce the risk of common method bias (Podsakoff et al., 2012). The participants received a new anonymous Qualtrics survey link each month, consented, completed the unique identifier questions for matching purposes across waves, and completed their survey fully online.

3.3 Measures

All responses were measured on a five-point Likert scale (1= *Very Rarely* to 5= *Very Often*) unless noted otherwise.

Neuroticism and Extraversion. Neuroticism and extraversion were measured at time one by eight-items each from Saucier's (1994). This measure consisted of a Likert scale ranging from 1 to 9, with 1 representing Extremely Inaccurate and 9 representing Extremely Accurate. Participants were asked to self-identify at the present time, not as they wish to be, the degree to which they are: "Energetic," "Extraverted," "Fretful," and other similar items. The Cronbach's alpha for "Neuroticism" was .77. The Cronbach's alpha for "Extraversion" was .85.

Facebook Addiction. Facebook addiction was measured at Time 1 by Andreassen et al.'s (2012) eighteen-item Bergen Facebook Addiction Scale. Example items included how often during the last year they Spent a lot of time thinking about Facebook or planned use of Facebook? and Used Facebook so much that it has had a negative impact on your job/studies? The Cronbach's alpha for Facebook Addiction was .90.

Positive and Negative Affect. Positive and negative affect was measured at Time 2 by Watson et al.'s (1998) twenty-item Positive and Negative Affect Scale (PANAS). Example items included the extent to which after viewing Facebook over the past few weeks due to COVID they felt "Interested" or "Distressed." The Cronbach's alpha for Positive Affect was .90. The Cronbach's alpha for Negative Affect was .91.

Mental Health. Mental health was measured at Time 3 by Antony et al.'s (1998) twenty-one-item Depression Anxiety and Stress Scale (DASS). This measure consisted of a Likert scale ranging from 1 to 6, with 1 representing Never and 6 representing Multiple

Times a Day. Example items included asking participants to indicate the extent to which they have engaged in the following since COVID began—I couldn't seem to experience any positive feeling at all, and I found it difficult to work up the initiative to do things.

The Cronbach's alpha for the stress dimension of DASS was .895. The Cronbach's alpha for the depression dimension of DASS was .913. The Cronbach's alpha for the anxiety dimension of DASS was .81.

Counterproductive Work Behaviors. Counterproductive Work Behaviors (CWB) were measured at Time 3 by Bennett and Robinson's (2000) nineteen-item scale. This measure consisted of a Likert scale ranging from 1 to 7, with 1 representing Never and 7 representing Several Times a Day. Example items included asking participants to indicate the extent to which they have engaged in the following since COVID began: Cursed at someone at work and Played a mean prank on someone at work. The Cronbach's (1951) alpha reliability for CWB was .615.

Workplace Social Courage. Workplace Social Courage was measured at Time 3 by Howard et al.'s (2016) eleven-item scale. This measure consisted of a Likert scale ranging from 1 to 7, with 1 representing *Strongly Disagree* and 7 representing *Strongly Agree*. Example items included asking participants to indicate the extent to which they have engaged in the following since COVID began: *Although it may damage our friendship, I would tell my superior when a coworker is doing something incorrectly*, and *Although my coworker may become offended, I would suggest to him/her better ways to do things*. The Cronbach's alpha for Workplace Social Courage was .84.

Control Variables. We controlled for age and gender. We measured age by asking respondents What is your current age in years? For gender, we asked the participants What is your gender? (Male = 0; Female = 1).

CHAPTER IV

RESULTS

To examine our reflective moderated-mediation model, we utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3 (Ringle et al., 2015). PLS-SEM allows the researcher the ability to examine complex direct, indirect, and moderated relationships (Hair et al., 2020), causing the analysis to be ideal for testing our proposed model. We performed a confirmatory composite analysis (CCA), which is the recommended method for PLS-SEM analysis and involves two steps (Hair et al., 2020). The first step analyses the measurement model, and the second step analyses the structural model (Sarstedt & Cheah, 2019). Figures 1 and 2 in the Appendix show the initial and supplemental theoretical models that were both assessed using PLS-SEM.

These models were developed by employing Affective Events Theory. The initial model's independent variables include two personality traits – neuroticism and extraversion. The mediation variables, based on the AET framework, include positive and negative affect. The moderating variable is Facebook Use during COVID, and finally, the dependent variables are workplace outcomes, which include poor mental health, counterproductive work behaviors, and workplace social courage.

To simplify our relationships and model, we also provide results for a supplemental model, which is also based on the AET framework and is shown in

Figure 2. The independent variable for this supplemental model is neuroticism, and the mediation variables are positive and negative affect. The first-stage moderation variable is Facebook Use during COVID, and the dependent variables are poor mental health and counterproductive work behaviors, specifically organizational deviance. Below we detail the data analysis and results.

4.1 Analysis

The descriptive statistics, including means, standard deviations, and correlations for all the variables included in the initial model can be found in Table 4. Table 9 displays the results for the smaller alternative model, which also shows significant relationships helping to increase our understanding among these constructs.

4. 2 Measurement Model Evaluation – PLS-SEM

First, we assess the measurement model by analyzing the reliability and validity of the outer models. When using PLS-SEM, we perform a CCA for our measurement model, which is similar to a CB-SEM Confirmatory Factor Analysis (CFA). The following steps to perform a CCA include estimating the outer loadings and significance, checking indicator reliability, analyzing Cronbach's alpha for reliability and composite reliability, confirming convergent validity by using the average variance extracted (AVE) from the indicators, examining discriminant validity between the latent constructs, assessing nomological validity, and assessing predictive validity (Hair et al., 2020).

When assessing CCA for our initial measurement model, several items did not meet the recommended outer loading criterion of .708 or above (Hair et al., 2017). As

shown in Table 1 in the Appendix, the items for neuroticism that were removed due to low loadings were B5N5r which was .34, B5N7 which was .30. The items that were removed due to low loadings for extraversion were B5E3 which was .18, B58r which was .36. However, for the Facebook Addiction Scale, all items loaded well and were retained. Additional items that were removed due to low loadings for negative affect were NA4 which was .38, and the items that were removed due to low loadings for positive affect were PA1 which was .56 and PA4 which was .40. The only mental health item that was removed was Anxiet20 which was .54. The items removed for CWB due to low loadings were CWBID2 which was .37, CWBID4 which was .39, CWBOD8 which was -.07, CWBOD9 which was -.09, CWBOD11 which was .59, CWBOD12 which was .54, and CWBOD13 which was .35. The items removed for WSCS were WSCS1 which was .43, WSCS3 which was .57, WSCS5 which was .41, WSCS6 which was .53, WSCS7 which was .48, and WSCS8 which was .50. We chose to retain all other remaining items due to theoretical alignment and the fact that other items were close to meeting the cutoff criteria. Again, Table 1 in the Appendix displays the individual items, their initial loadings, and whether they were retained or removed. Next, reliability for the measurement model was assessed. These results for the full model can be found in Table 5. All construct composite reliabilities were above the .70 threshold except for one, counterproductive work behavior interpersonal deviance (CWBID) at .40. This construct composite reliability was lower due to us not being able to ask participants all of the items for CWB. Overall, the requirements for the measurement model reliability were above the recommended minimum guidelines (Hair et al., 2017).

Next, we assessed convergent validity, which is analyzed based on the sizes of the average variance extracted (AVE). The AVEs for all constructs were at or above the minimum recommended level of .50, except the one dimension of CWB, CWBID. Thus, overall, this provides support for convergent validity (Hair et al., 2017). For the next step of CCA, we analyzed the heterotrait-monotrait (HTMT), which measures the discriminant validity between constructs. All of the measures of HTMT were at or below the recommended level of 0.85, except two CWB dimension items related to the CWB higher order construct. Additionally, all confidence intervals did not include a 0 (Henseler et al., 2015). Thus, discriminant validity among the constructs were confirmed.

Next, we assessed nomological validity (Hair et al., 2020). To analyze nomological validity, construct correlations within the theoretical model can be used to help empirically test and confirm theory (Hair et al., 2019). Within previous AET literature, seminal articles such as Weiss and Cropanzano (1996), Watson et al. (1998), Wallace et al. (2009), and more were used to develop the conceptual model. We also relied on Russell and Carrol's (1999) findings regarding AET. Mixed results, specifically regarding positive and negative affect over time, have been reported, which is what we also found in our research. Russell and Carroll (1999) found that when positive and negative affect are viewed over time, these constructs are more complex and are not clear polar opposites, as one may initially think, especially as the length of time for measure increases. Our study specifically asked, "to indicate to what extent you feel the following, in general, after viewing what others are posting on Facebook in the past few weeks...."

Thus, our results are in alignment with Russell and Carroll's (1999) findings, which is underlying that people are experiencing mixed affect, especially when asked over a

longer timeframe. Our results similarly point to the notion that employees are unsure how to react to these Facebook posts during the pandemic. Overall, this previous research provides support for our theoretical constructs and their relationships.

However, due to complexity of the full model, an alternate model was run. We assessed this alternate model utilizing the same CCA steps above, and the alternate model is a much better representation of the meaningful relationships in our data. The alternate model, Figure 2, is also a moderated-mediation model with neuroticism as the single independent variable, positive and negative affect as the mediators, Facebook use during COVID as the first stage moderator, and poor mental health and CWBOD as the dependent variables. Loadings were assessed at the .708 criterion, as in the full model, and reliability and validity were also assessed in the same CCA format, which is displayed in Tables 9 and 10.

4.3 Structural Model Evaluation – PLS-SEM

Next, we analyzed the structural model, which is the second step in the CCA (Hair et al., 2020). This involves evaluating the model for multicollinearity issues, path coefficients and significance, the R for the dependent variables, the in-sample *f* effect size, and the out-of-sample prediction using PLSpredict (Shmueli et al., 2019). Results for each of these aspects are reported in the following sections, and Figure 2 provides an overview of the results.

First, we assessed if multicollinearity was present among the independent constructs of the structural model by analyzing the variance inflation factor (VIF) statistic. VIF values between the latent constructs were all less than 2. Multicollinearity,

therefore, should not be an issue in evaluating the structural model (Hair et al., 2017). Next, we analyzed the path coefficients and significance levels for our hypothesized relationships by executing PLS bootstrapping. For bootstrapping, we used 5,000 samples to generate bias-corrected confidence intervals. The hypothesized direct and indirect relationships were examined.

4.3.1 Direct Relationships

For our full model, we analyzed the direct relationships hypothesized. First, we evaluated the direct relationships between affect and workplace outcomes. Positive affect was only significantly and positively related to workplace social courage. Thus, H1 and H2 were rejected, and H3 was accepted. Negative affect was only significantly and positively related to poor mental health. Thus, H5 and H6 were rejected, and H4 was accepted. We then analyzed the other direct relationships hypothesized, which include the positive relationships of neuroticism to negative affect and extraversion to positive affect; however, both were not significant. Thus, H7 and H8 were rejected. All direct hypothesized results for the full model are shown in Appendix Table 6. Next, we will discuss the indirect relationships.

4.3.2 Indirect Relationships- Mediation

To determine the indirect effects for our mediation relationships, we utilized the bootstrapping function within SmartPLS. This function enables solutions for more complex models with smaller sample sizes by utilizing randomly drawn observations to create subsamples of the original data to assist in measuring the model (Hair et al., 2017; Hair et al., 2019; Sarstedt et al., 2020).

Mediation is when a variable is in the middle of exogenous and endogenous constructs. This mediating construct is key to the progression in the relationship from the exogenous to the endogenous outcome (Hair et al., 2017). The only significant mediating relationship was positive affect, which mediated the positive relationship between extraversion and workplace social courage. However, it did not mediate the relationship between extraversion and poor mental health and CWB. So, H9 is partially accepted for the full model. Additionally, negative affect was not shown to have a significant positive relationship with neuroticism and thus, H10 was not accepted. All indirect mediated relationships are shown in Appendix Table 7.

4.3.3 Indirect Relationships – Moderation

For our initial full model, we hypothesize moderating relationships for H11 and H12. Our moderating variable, Facebook Use during COVID, is hypothesized to strengthen the positive relationship between neuroticism and negative affect and weaken the positive relationship between extraversion and positive affect. Moderation explains a change in the strength or direction of the relationships between variables (Hair et al., 2017). In SmartPLS, we utilized the orthogonal moderation approach by analyzing the moderating interaction effect. Neither of the moderating effects for our full model were significant, so both H11 and H12 were not supported. All indirect moderated hypothesized relationships for the full model are shown in Appendix Table 8.

4.3.4 Predictive Relevance

Additionally, since our study was a 3-wave time-separated study, predictive relevance was of importance. PLSpredict was utilized to assess the out of sample predictive relevance and power of our model. Developed by Shmueli et al. (2016),

PLSpredict utilizes training and holdout samples to produce and calculate predictions derived from path model estimations, and we utilized 7 folds and 7 repetitions to cross validate our data. According to Hair et al. (2017), a Q-value greater than zero (0) signifies that the theoretical model has predictive relevance for the chosen endogenous construct. Over half of the endogenous variables within the full model are greater than 0. Thus, the full model establishes moderate predictive relevance. Additionally, for our alternate model, over half of the endogenous variables are also greater than 0. Thus, the alternate model also establishes moderate predictive relevance (Shmueli et al., 2019).

CHAPTER V

DISCUSSION

Our goal was to analyze the impact that social media use has on healthcare employees and mental health, CWB, and workplace social courage at work through the lens of AET. Based on these objectives, we conducted a time-separated survey study that included 71 participants, and we analyzed our results using PLS-SEM by testing a full model and an alternative model.

For our full model, our results identify three significant direct relationships and one indirect mediating relationship. For our direct relationships, we found that positive affect is significantly and negatively related to counterproductive work behavior organizational deviance and negative affect is significantly and positively related to poor mental health. One personality trait, Extraversion, was positively and significantly related to positive affect. For our indirect relationships, the only significant mediating effect was the relation of extraversion and workplace social courage mediated by positive affect. There were no significant moderating relationships.

For our alternate model, negative affect was positively and significantly related to poor mental health, and it was also significantly and positively related to CWB-O. There was a significant negative relationship between neuroticism and positive affect, and we

found in our alternate model that Facebook use moderated the significant and negative relationship between neuroticism and positive affect.

Together, these results indicate that we have found initial evidence supporting critical relationships in our alternate model; however, the full model's relationships also require further study. The significance of these relationships could still be present just our smaller sample size hindered these potentially significant effects. These findings produce several implications for future research and practice.

5.1 Theoretical Implications and Future Directions

The AET framework excludes a crucial and relatively newer construct, social media use, which can greatly affect reactions to situations and events, and this paper contributes to existing AET literature by laying the foundation for researchers to better understand these relationships in the workplace. With over 2.4 billion active users on Facebook, more research is needed to see how this now daily activity for so many affects the workplace (Brailovskaia et al., 2020). This study helps to begin the process by providing support for incorporating the moderating effect of social media via Facebook use into the AET framework, as Facebook use was shown to moderate the negative relationship between neuroticism and positive affect.

Currently, the AET framework outlines how work events and/or one's disposition leads to positive or negative affective reactions; however, this research proposes that something else is missing in this equation that can change the strength of these relationships. This research is the first of its kind to incorporate social media use as a moderator and found a significant moderating effect between dispositions and affective

reactions. More recent studies found support that Facebook use might have more negative implications than initially perceived (Bao et al., 2021; Brailovskaia et al., 2020; Qasem, 2019; Shensa et al., 2021; Zhang et al., 2021; amongst others). However, our significant moderated effect found that when Facebook addiction is lower, the relation of neuroticism and Positive Affect is more negative. Whereas when Facebook addiction is higher, the relation of neuroticism and positive affect is more positive. Therefore, we found that Facebook use significantly moderated the negative relationship between neuroticism and positive affect. Thus, additional research should be done to more fully understand the underpinnings of these relationships to better determine the effects of Facebook use on workplace outcomes.

Additionally, moving forward, future research should analyze if different results stem from different social media platforms. Some platforms might generate more positive or negative affect than others. Thus, more research should be done to better understand the relationships between affect and various social media platforms. Also, it would be beneficial to determine if our results are only pertinent to healthcare employees during a pandemic or if this moderating effect can be generalized to other populations, which would help us to better understand the impact that Facebook use has on these crucial relationships. Prior research suggests that healthcare employees are not the only ones experiencing these phenomena. Based on the significant effects found in our study along with the literature review study by Akram and Kumar (2017), Brailovskaia et al. (2020), and Zhang et al. (2021) who looked at society as a whole and who also found to be affected by social media use, this supports that that this is an indicator of a more

widespread phenomena that extends beyond just healthcare employees. Thus, this should be the beginning of more studies on this topic into the AET framework.

5.2 Practical Implications

To help close the gap between practitioners and academics, this research illustrates that supervisors and managers should be trained on the positive and negative implications of employees' social media use in the workplace. For example, Brailovskaia et al. (2020) explain how those who utilize and engage in social media over an hour a day reported lower levels of well-being, and this study provided findings with our alternate model's significant moderating relationship between neuroticism and positive affect that needs to be further researched.

Companies need and want their employees to be productive to attain and maintain a competitive advantage. Managers can revise practices to help mitigate the negative implications of social media use by educating and coaching employees on both the positive and negative implications and reactions that can stem from social media use. For instance, managers can limit time spent on social media sites on company computers. Additionally, managers can encourage employees to not utilize social media so frequently on their own phones/devices by showing them various apps that can help to limit the amount of social media time throughout the day. By utilizing these strategies, both employees and the company could benefit to potentially avoid negative implications that can stem from Facebook use. Overall, the goal is to ensure that valuable employees remain as innovative and productive as possible by reducing damaging effects at work.

5.3 Limitations

As with all studies, the current investigation has limitations that should be noted. All constructs are measured via self-report. There may be some reporting issues on whether the employees admit to engaging in CWB or other negatively perceived statements at work, even though anonymity was fully explained to all participants. Another limitation is that negative affect could partially be attributed to other emotionally tolling aspects. For example, an emergency room employee or someone who deals directly with COVID patients might experience more negative affect than other employees in general based on their job requirements. For this reason, the current results may not generalize to all other contexts. Notwithstanding these limitations, the findings are projected to help improve managerial decision making at work.

5.4 Conclusion

This research utilized AET to help analyze crucial relationships during the COVID pandemic, and results from this study can be relevant and beneficial for managers in the workplace, particularly in healthcare organizations. Managers should review social media policies and practices to help reduce any negative impacts in the workplace. Training and coaching for employees and managers regarding social media use should be implemented. This research can help to reduce the triggers that can increase the likelihood of negative impacts in the workplace stemming from social media. Overall, the goal is to ensure that valuable healthcare employees, especially in these critical times, remain as productive as possible.



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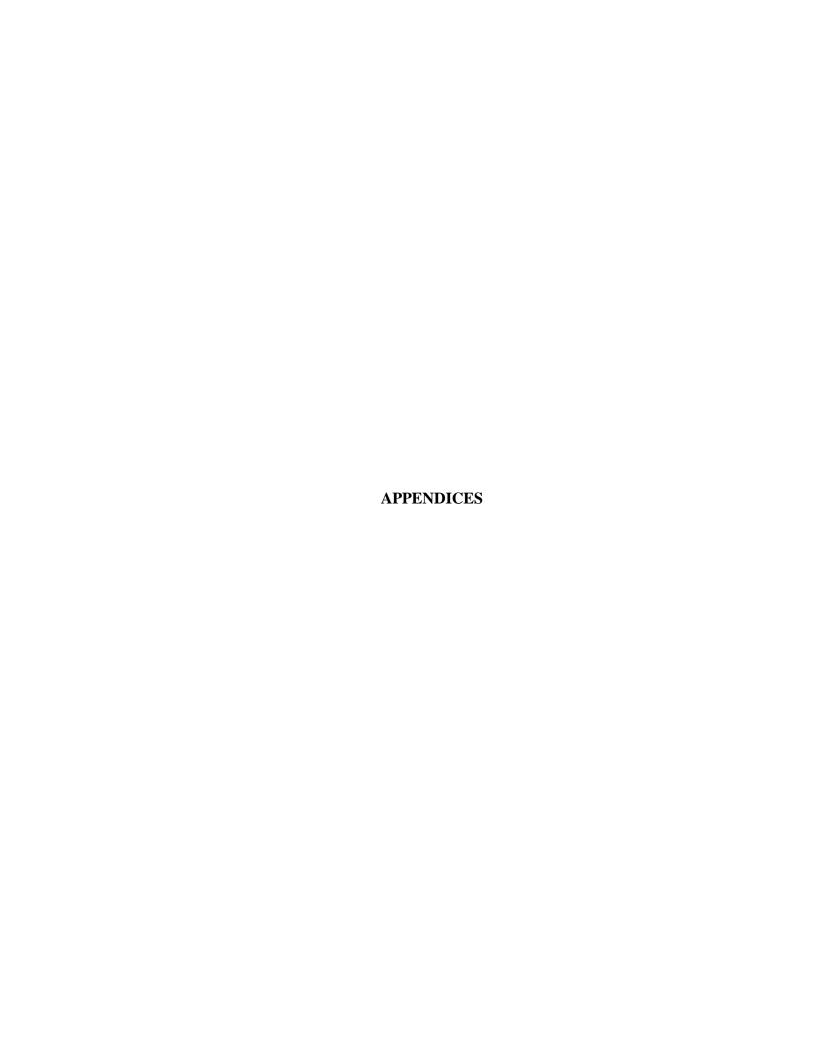
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Appendix A

IRB Approval to Conduct Research



TELEPHONE: (251) 460-6308 AD 240 · MOBILE, AL. 36688-0002

INSTITUTIONAL REVIEW BOARD

April 23, 2020

Principal Investigator: Melanie Boudreaux, MBA IRB # and Title: IRB PROTOCOL: 20-163

irb@southalabama.edu

[1598233-1] "Unplugging from Social Media at Work: Neuroticism, Social Media, Negative Emotions, and the Effects on Counterproductive Behavior at Work"

Status: APPROVED Review Type: Exempt Review Approval Date: April 23, 2020 Submission Type: New Project

Initial Approval: April 23, 2020 Expiration Date:

Review Category: 45 CFR 46.104 (d)(2): Research that only includes interaction involving the

use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior (including

visual or auditory recording):

ii. Any disclosure of the human subjects' responses outside of the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational

advancement, or reputation

This panel, operating under the authority of the DHHS Office for Human Research and Protection, assurance number FWA 00001602, and IRB Database #00000286, has reviewed the submitted materials for the following:

- 1. Protection of the rights and the welfare of human subjects involved.
- The methods used to secure and the appropriateness of informed consent.
- 3. The risk and potential benefits to the subject.

The regulations require that the investigator not initiate any changes in the research without prior IRB approval, except where necessary to eliminate immediate hazards to the human subjects, and that all problems involving risks and adverse events be reported to the IRB immediately!

Subsequent supporting documents that have been approved will be stamped with an IRB approval and expiration date (if applicable) on every page. Copies of the supporting documents must be utilized with the current IRB approval stamp unless consent has been waived.

Notes:

Appendix B

Codebook for Dissertation Data Collection

Collected Fall 2020

SURVEY

Items on a 1 to 9 scale with anchors of Extremely Inaccurate (1) to Extremely Accurate (9).

Big 5 – Neuroticism (Time 1)				
B5N	B5N1	Envious		
	B5N2	Fretful		
	B5N3	Jealous		
	B5N4	Moody		
	B5N5	Relaxed		
	B5N5r	Relaxed (Reverse Coded)		
	B5N6	Temperamental		
	B5N7	Touchy		
	B5N8	Unenvious		
	B5N8r	Unenvious (Reverse Coded)		
Big 5 – Ext	traversion (Time	1)		
B5E	B5E1	Bashful		
	B5E1r	Bashful (Reverse Coded)		
	B5E2	Bold		
	B5E3	Energetic		
	B5E4	Extraverted		
	B5E5	Quiet		
	B5E5r	Quiet (Reverse Coded)		
	B5E6	Shy		
	B5E6r	Shy (Reverse Coded)		
	B5E7	Talkative		
	B5E8	Withdrawn		
	B5E8r	Withdrawn (Reverse Coded)		

Faceboo	ok Addiction S	Scale (Time 1)
FBS	Salience	
	FBS1	Spent a lot of time thinking about Facebook or planned use of Facebook?
	FBS2	Thought about how you could free more time to spend on Facebook?
	FBS3	Thought a lot about what has happened on Facebook recently-specifically related to COVID posts?
FBT	Tolerance	
	FBT4	Spent more time on Facebook than initially intended- now more than prior to COVID
	FBT5	Felt an urge to use Facebook more and more
	FBT6	Felt that you had to use Facebook more and more in order to get the same pleasure from it?
FBMM	Mood Modif	ication
	FBMM7	Used Facebook in order to forget about personal problems?
	FBMM8	Used Facebook to reduce feelings of guilt, anxiety,
		helplessness, and depression?
	FBMM9	Used Facebook in order to reduce restlessness?
FBR	Relapse	
	FBR10	Experienced that others have told you to reduce your use of Facebook but not listened to them?
	FBR11	Tried to cut down on the use of Facebook without success?
	FBR12	Decided to use Facebook less frequently, but not managed to do so?
FBW	Withdrawal	
	FBW13	Become restless or troubled if you have been prohibited from using Facebook?
	FBW14	Become irritable if you have been prohibited from using Facebook?
	FBW15	Felt bad if you, for different reasons, could not log on to Facebook for some time?
FBC	Conflict	
	FBC16	Used Facebook so much that it has had a negative impact on your job/studies?
	FBC17	Given less priority to hobbies, leisure activities, and exercise because of Facebook?
	FBC18	Ignored your partner, family members, or friends because of Facebook?

Items on a 1 to 5 scale with anchors of Very Slightly or Not at All (1) to Extremely (5).

Positive and Negative Affect (Time 2)					
PA	Positive Affect				
	PA1	Interested			
	PA3	Excited			
	PA5	Strong			
	PA9	Enthusiastic			
	PA10	Proud			
	PA12	Alert			
	PA14	Inspired			
	PA16	Determined			
	PA17	Attentive			
	PA19	Active			
NA	Negative Affect				
	NA2	Distressed			
	NA4	Upset			
	NA6	Guilty			
	NA7	Scared			
	NA8	Hostile			
	NA11	Irritable			
	NA13	Ashamed			
	NA15	Nervous			
	NA18	Jittery			
	NA20	Afraid			

Items on a 1 to 7 scale with anchors of Strongly Disagree (1) to Strongly Agree (7).

Counterproductive Work Behaviors (Time 3)			
CWBID	Interpersonal Deviance		
	CWBID1	Cursed at someone at work.	
	CWBID2	Played a mean prank on someone at work.	
	CWBID3	Acted rudely toward someone at work.	
	CWBID4	Publicly embarrassed someone at work.	

CWBOD	Organizational Deviance		
	CWBOD5	Spent too much time fantasizing or daydreaming instead of working.	
	CWBOD6	Taken an additional or longer break than is acceptable at your workplace.	
	CWBOD7	Came in late to work without permission.	
	CWBOD8	Littered your work environment.	
	CWBOD9	Neglected to follow your boss's instructions.	
	CWBOD10	Intentionally worked slower than you could have worked.	
	CWBOD11	Discussed confidential company information with an unauthorized person.	
	CWBOD12	Put little effort into your work.	
	CWB1OD3	Dragged out work in order to get overtime	

Items on a 1 to 7 scale with anchors of Strongly Disagree (1) to Strongly Agree (7).

Workp	lace Social	Courage Scale (Time 3)
WSCS	WSCS1	Although it may damage our friendship, I would tell my superior when a coworker is doing something incorrectly.
	WSCS2	Although my coworker may become offended, I would suggest to him/her better ways to do things.
	WSCS3	If I thought a question was dumb, I would still ask it if I didn't understand something at work.
	WSCS4	Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
	WSCS5	I would not tolerate when a coworker is rude to someone, even if I make him/her upset.
	WSCS6	Despite my subordinate disliking me, I would tell him/her when they're doing something against company policy.
	WSCS7	I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
	WSCS8	Even if it may damage our relationship, I would confront a subordinate who had been disrupting their work-group.
	WSCS9	Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
	WSCS10	Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.
	WSCS11	Although it may completely ruin our friendship, I would give a coworker an honest performance appraisal.

Depression, Anxiety, and Stress Scale (Time 3)

Depression, Anxiety, and Stress Scale (Time 3)			
STRESS	Stress		
	STRESS1	I found it hard to wind down.	
	STRESS6	I tended to over-react to situations.	
	STRESS8	I felt that I was using a lot of nervous energy.	
	STRESS11	I found myself getting agitated.	
	STRESS12	I found it difficult to relax.	
	STRESS14	I was intolerant of anything that kept me from getting on with what I was doing.	
	STRESS18	I felt that I was rather touchy.	
ANXIET	Anxiety		
	ANXIET2	I was aware of dryness of my mouth.	
	ANXIET4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).	
	ANXIET7	I experienced trembling (e.g., in the hands).	
	ANXIET9	I was worried about situations in which I might panic and make a fool of myself.	
	ANXIET15	I felt I was close to panic.	
	ANXIET19	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	
	ANXIET20	I felt scared without any good reason.	
DEPRES	Depression		
	DEPRES3	I couldn't seem to experience any positive feeling at all.	
	DEPRES5	I found it difficult to work up the initiative to do things.	
	DEPRES10	I felt that I had nothing to look forward to.	
	DEPRES13	I felt down-hearted and blue.	
	DEPRES16	I was unable to become enthusiastic about anything.	
	DEPRES17	I felt I wasn't worth much as a person.	
	DEPRES21	I felt that life was meaningless.	

Demographics

Gender	What gender do you identify with?	
	0_Male	
	1_Female	
	2_Other	
WorkHrs	How many hours per week do you normally work?	
Age	What is your current age?	

Sources of Scales

Name	Scale	Number of Items	Source
B5	Big Five	40	Saucier, G. (1994). Mini-Markers: A brief version of Goldberg's unipolar Big-Five markers. <i>Journal of Personality Assessment</i> , 63(3), 506-516.
FB	Facebook Addiction	18	Andreassen et al. (2012). Development of a Facebook Addiction Scale. <i>Psychol Rep.</i> 110(2):501-517.
PANAS	Positive and Negative Affect Schedule	20	Watson et al. (1998). Development and validation of brief measures of positive and negative affect: The PANAS scales. <i>Journal of Personality and Social Psychology</i> , 54(6), 1063.
CWB	Counterproductive Work Behaviors	19	Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. <i>Journal of Applied Psychology</i> , 85(3), 349.
WSC	Workplace Social Courage	11	Howard et al. (2016). The creation of the workplace social courage scale (WSCS): An investigation of internal consistency, psychometric properties, validity, and utility. <i>Journal of Business and Psychology</i> , 1-18.
DASS	Depression, Anxiety, and Stress	21	Antony et al. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. <i>Psychological Assessment</i> , <i>10</i> (2), 176.

Appendix C

Tables 1 – 10

Table 1.

PLS-SEM: Constructs Measures and Indicator Loadings/Weights— of the Full PANAS Moderated Mediation Model Scale Items Prior to Removal

TATYAS Moderated Medication Model Scale Hems 1 Flor to Re		<u>, </u>
Neuroticism		
The degree to which you see yourself at the present time as envious.	0.79	Retained
The degree to which you see yourself at the present time as fretful.	0.61	Retained
The degree to which you see yourself at the present time as jealous.	0.76	Retained
The degree to which you see yourself at the present time as moody.	0.66	Retained
The degree to which you see yourself at the present time as relaxed. The degree to which you see yourself at the present time as	0.34	Removed
temperamental.	0.68	Retained
The degree to which you see yourself at the present time as touchy.	0.30	Removed
The degree to which you see yourself at the present time as unenvious.	0.70	Retained
Extraversion		
The degree to which you see yourself at the present time as bashful.	0.84	Retained
The degree to which you see yourself at the present time as bold.	0.75	Retained
The degree to which you see yourself at the present time as energetic.	0.18	Removed
The degree to which you see yourself at the present time as extraverted.	0.75	Retained
The degree to which you see yourself at the present time as quiet.	0.84	Retained
The degree to which you see yourself at the present time as shy.	0.84	Retained
The degree to which you see yourself at the present time as talkative.	0.68	Retained
The degree to which you see yourself at the present time as withdrawn.	0.36	Removed
Facebook Addiction (past months since COVID started)		
Spent a lot of time thinking about Facebook or planned use of Facebook?	0.81	Retained
Thought about how you could free more time to spend on Facebook?	0.68	Retained
Thought a lot about what has happened on Facebook recently-		
specifically related to COVID posts?	0.81	Retained

Table 1 cont.

Spent more time on Facebook than initially intended- now more than prior to COVID	0.88	Retained
Felt an urge to use Facebook more and more	0.88	Retained
Felt that you had to use Facebook more and more in order to get the same pleasure from it?	0.74	Retained
Used Facebook in order to forget about personal problems?	0.76	Retained
Used Facebook to reduce feelings of guilt, anxiety, helplessness, and depression?		Retained
Used Facebook in order to reduce restlessness?		Retained
Experienced that others have told you to reduce your use of Facebook but not listened to them?		Retained
Tried to cut down on the use of Facebook without success?	0.96	Retained
Decided to use Facebook less frequently, but not managed to do so? Become restless or troubled if you have been prohibited from using	0.93	Retained
Facebook?	0.94	Retained
Become irritable if you have been prohibited from using Facebook? Felt bad if you, for different reasons, could not log on to Facebook for	0.83	Retained
some time? Used Facebook so much that it has had a negative impact on your	0.87	Retained
job/studies?	0.74	Retained
Given less priority to hobbies, leisure activities, and exercise because of Facebook?	0.69	Retained
Ignored your partner, family members, or friends because of Facebook?	0.74	Retained
Negative Affect		
Extent to which you feel distressed, in general, over the past few		
weeks due to what others are posting on Facebook due to COVID.	0.80	Retained
Extent to which you feel upset, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.87	Retained
Extent to which you feel guilty, in general, over the past few weeks		
due to what others are posting on Facebook due to COVID.	0.38	Removed
Extent to which you feel scared, in general, over the past few weeks	0.60	D
due to what others are posting on Facebook due to COVID.	0.69	Retained
Extent to which you feel hostile, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.77	Retained
Extent to which you feel irritable, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.81	Retained
Extent to which you feel ashamed, in general, over the past few weeks		
due to what others are posting on Facebook due to COVID.	0.76	Retained

Table 1 cont.

Extent to which you feel nervous, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.82	Retained
Extent to which you feel jittery, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.69	Retained
Extent to which you feel afraid, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.77	Retained
Positive Affect		
Extent to which you feel interested, in general, over the past few weeks		
due to what others are posting on Facebook due to COVID.	0.56	Removed
Extent to which you feel excited, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.40	Removed
Extent to which you feel strong, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.89	Retained
Extent to which you feel enthusiastic, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.77	Retained
Extent to which you feel proud, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.73	Retained
Extent to which you feel alert, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.74	Retained
Extent to which you feel inspired, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.72	Retained
Extent to which you feel determined, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.88	Retained
Extent to which you feel attentive, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.88	Retained
Extent to which you feel active, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.89	Retained
Poor Mental Health		
I found it hard to wind down.	0.71	Retained
I tended to over-react to situations.	0.73	Retained
I felt that I was using a lot of nervous energy.	0.74	Retained
I found myself getting agitated.	0.88	Retained
I found it difficult to relax.	0.89	Retained

Table 1 cont.

I was intolerant of anything that kept me from getting on with what I was doing.	0.87	Retained
I felt that I was rather touchy.	0.77	Retained
I was aware of dryness of my mouth.	0.58	Retained
I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).	0.81	Retained
I experienced trembling (e.g., in the hands).	0.69	Retained
I was worried about situations in which I might panic and make a fool of myself.	0.74	Retained
I felt I was close to panic.	0.88	Retained
I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	0.66	Retained
I felt scared without any good reason.	0.54	Removed
I couldn't seem to experience any positive feeling at all.	0.66	Retained
I found it difficult to work up the initiative to do things.	0.83	Retained
I felt that I had nothing to look forward to.	0.73	Retained
I felt down-hearted and blue.	0.87	Retained
I was unable to become enthusiastic about anything.	0.87	Retained
I felt I wasn't worth much as a person.	0.88	Retained
I felt that life was meaningless.	0.83	Retained
Counterproductive Work Behaviors		
Cursed at someone at work.	0.58	Retained
Played a mean prank on someone at work.	0.37	Removed
Acted rudely toward someone at work.	0.86	Retained
Publicly embarrassed someone at work.	0.39	Removed
Spent too much time fantasizing or daydreaming instead of working.	0.64	Retained
Taken an additional or longer break than is acceptable at your workplace.	0.69	Retained
Came in late to work without permission.	0.68	Retained
Littered your work environment.	-0.07	Removed

Table 1 cont.

Neglected to follow your boss's instructions.	-0.09	Removed
Intentionally worked slower than you could have worked.	0.65	Retained
Discussed confidential company information with an unauthorized person.	0.57	Removed
Put little effort into your work.	0.54	Removed
Dragged out work in order to get overtime	0.35	Removed
Workplace Social Courage		
Although it may damage our friendship, I would tell my superior when a coworker is doing something incorrectly.	0.43	Removed
Although my coworker may become offended, I would suggest to him/her better ways to do things.	0.61	Retained
If I thought a question was dumb, I would still ask it if I didn't understand something at work.	0.57	Removed
Even if my coworkers could think less of me, I'd lead a project with a chance of failure.	0.71	Retained
I would not tolerate when a coworker is rude to someone, even if I make him/her upset.	0.41	Removed
Despite my subordinate disliking me, I would tell him/her when they're doing something against company policy.	0.53	Removed
I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.	0.48	Removed
Even if it may damage our relationship, I would confront a subordinate who had been disrupting their work-group.	0.50	Removed
Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.	0.64	Retained
Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.	0.79	Retained
Although it may completely ruin our friendship, I would give a coworker an honest performance appraisal.	0.74	Retained

Table 2.

PLS-SEM: Constructs Measures and Indicator Loadings/Weights— of the Full PANAS Moderated Mediation Model after Removal of Low Item Loadings

PANAS Moderated Mediation Model after Removal of Low Item Loadings	
Neuroticism	
The degree to which you see yourself at the present time as envious.	0.80
The degree to which you see yourself at the present time as fretful.	0.62
The degree to which you see yourself at the present time as jealous.	0.77
The degree to which you see yourself at the present time as moody.	0.66
The degree to which you see yourself at the present time as temperamental.	0.66
The degree to which you see yourself at the present time as unenvious.	0.72
Extraversion	
The degree to which you see yourself at the present time as bashful.	0.85
The degree to which you see yourself at the present time as bold.	0.76
The degree to which you see yourself at the present time as extraverted.	0.75
The degree to which you see yourself at the present time as quiet.	0.84
The degree to which you see yourself at the present time as shy.	0.84
The degree to which you see yourself at the present time as talkative.	0.68
Facebook Addiction (past months since COVID started)	
Spent a lot of time thinking about Facebook or planned use of Facebook?	0.81
Thought about how you could free more time to spend on Facebook?	0.68
Thought a lot about what has happened on Facebook recently- specifically	0.01
related to COVID posts? Spent more time on Facebook than initially intended- now more than prior to	0.81
COVID	0.88
Felt an urge to use Facebook more and more	0.88
Felt that you had to use Facebook more and more in order to get the same	
pleasure from it?	0.74
Used Facebook in order to forget about personal problems?	0.76
Used Facebook to reduce feelings of guilt, anxiety, helplessness, and depression?	0.93
Used Facebook in order to reduce restlessness?	0.80
Experienced that others have told you to reduce your use of Facebook but not	0.00
listened to them?	0.75
Tried to cut down on the use of Facebook without success?	0.96
Decided to use Facebook less frequently, but not managed to do so?	0.93

Table 2 cont.

Become restless or troubled if you have been prohibited from using Facebook?	0.94
Become irritable if you have been prohibited from using Facebook? Felt bad if you, for different reasons, could not log on to Facebook for some	0.83
time?	0.87
Used Facebook so much that it has had a negative impact on your job/studies?	0.74
Given less priority to hobbies, leisure activities, and exercise because of	
Facebook?	0.69
Ignored your partner, family members, or friends because of Facebook?	0.74
Negative Affect	
Extent to which you feel distressed, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.80
Extent to which you feel upset, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.87
Extent to which you feel scared, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.68
Extent to which you feel hostile, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.79
Extent to which you feel irritable, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.82
Extent to which you feel ashamed, in general, over the past few weeks due to	0.76
what others are posting on Facebook due to COVID.	0.76
Extent to which you feel nervous, in general, over the past few weeks due to	0.01
what others are posting on Facebook due to COVID.	0.81
Extent to which you feel jittery, in general, over the past few weeks due to what	0.69
others are posting on Facebook due to COVID.	0.68
Extent to which you feel afraid, in general, over the past few weeks due to what	0.75
others are posting on Facebook due to COVID.	0.75
Positive Affect	
Extent to which you feel strong, in general, over the past few weeks due to	0.00
what others are posting on Facebook due to COVID.	0.89
Extent to which you feel enthusiastic, in general, over the past few weeks due	0.70
to what others are posting on Facebook due to COVID.	0.78
Extent to which you feel proud, in general, over the past few weeks due to what	0.70
others are posting on Facebook due to COVID.	0.73
Extent to which you feel alert, in general, over the past few weeks due to what	0.74
others are posting on Facebook due to COVID.	0.74
Extent to which you feel inspired, in general, over the past few weeks due to	0.72
what others are posting on Facebook due to COVID. Extent to which you feel determined, in general, over the past few weeks due to	0.72
what others are posting on Facebook due to COVID.	0.88
what others are posting on Paccoook due to CO VID.	0.00

Table 2 cont.

Extent to which you feel attentive, in general, over the past few weeks due to what others are posting on Facebook due to COVID.	0.88
Extent to which you feel active, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.89
Poor Mental Health	
I found it hard to wind down.	0.71
I tended to over-react to situations.	0.73
I felt that I was using a lot of nervous energy.	0.73
I found myself getting agitated.	0.88
I found it difficult to relax.	0.89
I was intolerant of anything that kept me from getting on with what I was	
doing.	0.78
I felt that I was rather touchy.	0.77
I was aware of dryness of my mouth.	0.63
I experienced breathing difficulty (e.g., excessively rapid breathing,	0.00
breathlessness in the absence of physical exertion).	0.82
I experienced trembling (e.g., in the hands). I was worried about situations in which I might panic and make a fool of	0.70
myself.	0.75
I felt I was close to panic.	0.87
I was aware of the action of my heart in the absence of physical exertion (e.g.,	0.07
sense of heart rate increase, heart missing a beat).	0.68
I couldn't seem to experience any positive feeling at all.	0.66
I found it difficult to work up the initiative to do things.	0.83
I felt that I had nothing to look forward to.	0.73
I felt down-hearted and blue.	0.87
I was unable to become enthusiastic about anything.	0.87
I felt I wasn't worth much as a person.	0.88
I felt that life was meaningless.	0.83
Counterproductive Work Behaviors	
Cursed at someone at work.	0.72
Acted rudely toward someone at work.	0.89
Spent too much time fantasizing or daydreaming instead of working.	0.61
Taken an additional or longer break than is acceptable at your workplace.	0.64

Table 2 cont.

Came in late to work without permission.	0.70
Intentionally worked slower than you could have worked.	0.68
Workplace Social Courage	
Although my coworker may become offended, I would suggest to him/her	
better ways to do things.	0.66
Even if my coworkers could think less of me, I'd lead a project with a chance	
of failure.	0.74
Although it makes me look incompetent, I would tell my coworkers when I've	
made a mistake.	0.66
Despite appearing dumb in front of an audience, I would volunteer to give a	
presentation at work.	0.81
Although it may completely ruin our friendship, I would give a coworker an	
honest performance appraisal.	0.77

Table 3.

PLS-SEM: Constructs Measures and Indicators Loadings/Weights— of the Alternate Parsimonious Model after Removal of Low Item Loadings

Parsimonious Model after Removal of Low Item Loadings	
Neuroticism	
The degree to which you see yourself at the present time as envious.	0.79
The degree to which you see yourself at the present time as fretful.	0.63
The degree to which you see yourself at the present time as jealous.	0.76
The degree to which you see yourself at the present time as moody.	0.66
The degree to which you see yourself at the present time as temperamental.	0.68
The degree to which you see yourself at the present time as unenvious.	0.71
Facebook Addiction (past months since COVID started)	
Spent a lot of time thinking about Facebook or planned use of Facebook?	0.81
Thought about how you could free more time to spend on Facebook?	0.68
Thought a lot about what has happened on Facebook recently- specifically related to COVID posts?	0.81
Spent more time on Facebook than initially intended- now more than prior to COVID	0.88
Felt an urge to use Facebook more and more	0.88
Felt that you had to use Facebook more and more in order to get the same pleasure from it?	0.74
Used Facebook in order to forget about personal problems?	0.76
Used Facebook to reduce feelings of guilt, anxiety, helplessness, and depression?	0.93
Used Facebook in order to reduce restlessness?	0.80
Experienced that others have told you to reduce your use of Facebook but not listened to them?	0.75
Tried to cut down on the use of Facebook without success?	0.96
Decided to use Facebook less frequently, but not managed to do so?	0.93
Become restless or troubled if you have been prohibited from using Facebook?	0.94
Become irritable if you have been prohibited from using Facebook? Felt bad if you, for different reasons, could not log on to Facebook for some	0.83
time?	0.87
Used Facebook so much that it has had a negative impact on your job/studies? Given less priority to hobbies, leisure activities, and exercise because of	0.74
Facebook?	0.69
Ignored your partner, family members, or friends because of Facebook?	0.74

Table 3 cont.

Negative Affect	
Extent to which you feel distressed, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.79
Extent to which you feel upset, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.86
Extent to which you feel scared, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.68
Extent to which you feel hostile, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.79
Extent to which you feel irritable, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.82
Extent to which you feel ashamed, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.75
Extent to which you feel nervous, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.80
Extent to which you feel jittery, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.72
Extent to which you feel afraid, in general, over the past few weeks due to what	0172
others are posting on Facebook due to COVID.	0.77
others are posting on racebook ade to ee vib.	0.77
Positive Affect	
Extent to which you feel strong, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.90
Extent to which you feel enthusiastic, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.76
Extent to which you feel proud, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.70
Extent to which you feel alert, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.78
Extent to which you feel determined, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.88
Extent to which you feel attentive, in general, over the past few weeks due to	
what others are posting on Facebook due to COVID.	0.88
Extent to which you feel active, in general, over the past few weeks due to what	
others are posting on Facebook due to COVID.	0.89
omers are posting on I accook due to CO (12).	0.07
Poor Mental Health	
I found it hard to wind down.	0.71
I tended to over-react to situations.	0.73
I felt that I was using a lot of nervous energy.	0.74

Table 3 cont.

I found myself getting agitated.	0.88
I found it difficult to relax.	0.89
I was intolerant of anything that kept me from getting on with what I was doing.	0.78
I felt that I was rather touchy.	0.77
I was aware of dryness of my mouth. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).	0.62
• •	0.70
I experienced trembling (e.g., in the hands).	
I was worried about situations in which I might panic and make a fool of myself.	0.75
I felt I was close to panic.	0.87
I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	0.68
I couldn't seem to experience any positive feeling at all.	0.66
I found it difficult to work up the initiative to do things.	0.83
I felt that I had nothing to look forward to.	0.73
I felt down-hearted and blue.	0.87
I was unable to become enthusiastic about anything.	0.87
I felt I wasn't worth much as a person.	0.88
I felt that life was meaningless.	0.83
Counterproductive Work Behaviors	
Taken an additional or longer break than is acceptable at your workplace.	0.74
Came in late to work without permission.	0.61
Intentionally worked slower than you could have worked.	0.79
Put little effort into your work.	0.56

Table 4.

Means, Standard Deviations and Correlations— of the Full PANAS Moderated Mediation Model and Constructs

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. NEUROTICISM	4.09	1.21																
2. EXTRAVERSION	5.70	1.73	-0.09															
3. FBSALIENCE	2.23	0.71	0.10	0.01														
4. FBTOLERANCE	2.12	0.84	0.01	-0.03	0.52***													
5. FBMOODMOD	1.91	0.81	0.26*	-0.13	0.52***	0.64***												
6. FBRELAPSE	1.64	0.80	-0.05	0.06	0.22	0.42***	0.32**											
7. FBWITHDRAWAL	1.23	0.48	0.08	-0.10	0.38**	0.37**	0.37**	0.55***										
8. FBCONFLICT	1.61	0.66	-0.02	0.06	0.41***	0.60***	0.53***	0.51***	0.52***									
9. NEGATIVEAFFECT	1.76	0.84	0.04	0.21	0.31*	0.34**	0.30*	0.26	0.33*	0.36**								
10. POSITIVEAFFECT	1.27	2.51	-0.04	-0.22	0.13	0.03	0.06	-0.02	0.10	-0.27*	0.15							
11. STRESS	1.85	10.49	-0.15	-0.09	-0.10	0.20	80.0	0.10	-0.03	0.14	0.01	0.01						
12. ANXIETY	0.66	10.27	-0.17	-0.13	-0.08	0.20	0.09	0.10	-0.01	0.14	0.01	0.02	0.98***					
13. DEPRESSION	2.05	2.88	0.08	-0.13	0.13	0.06	0.11	-0.06	0.02	-0.02	0.20	-0.05	0.46***	0.73***				
14. CWBID	1.58	0.89	0.17	0.27*	0.27*	0.17	-0.08	0.15	-0.02	0.02	0.04	-0.00	-0.23	-0.23	0.12			
15. CWBOD	1.86	0.77	0.25*	0.11	0.10	0.18	0.14	0.10	0.03	0.15	0.28*	-0.14	0.09	0.10	0.25*	0.19		
16. WSCS	3.74	0.72	-0.38**	0.50***	-0.16	-0.08	-0.37**	-0.02	-0.20	-0.08	0.06	-0.00	0.15	0.12	-0.19	0.02	-0.11	

Notes: N=71.

*p < .05.

**p < .01.

***p < .001.

Table 5.

PLS-SEM: Reliability, Validity, and AVEs— of the Full PANAS Moderated Mediation Model and Constructs

Variable	CR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. NEUROTICISM	0.88	0.50															
2. EXTRAVERSION	0.91	0.01	0.62														
3. FBS	0.81	0.01	0.00	0.59													
4. FBT	0.87	0.00	0.00	0.27	0.70												
5. FBMM	0.87	0.07	0.02	0.27	0.41	0.69											
6. FBR	0.91	0.00	0.00	0.05	0.18	0.10	0.78										
7. FBW	0.91	0.01	0.01	0.14	0.14	0.14	0.30	0.78									
8. FBC	0.77	0.00	0.00	0.17	0.36	0.28	0.26	0.27	0.52								
9. NA	0.90	0.00	0.04	0.10	0.12	0.09	0.07	0.11	0.13	0.60							
10. PA	0.94	0.00	0.05	0.02	0.00	0.00	0.00	0.01	0.07	0.02	0.74						
11. STRESS	0.92	0.02	0.01	0.01	0.04	0.01	0.01	0.00	0.02	0.00	0.00	0.85					
12. ANXIETY	0.88	0.03	0.02	0.01	0.04	0.01	0.01	0.00	0.02	0.00	0.00	0.96	0.56				
13. DEPRESSION	0.93	0.01	0.02	0.02	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.21	0.53	0.66			
14. CWBID	0.40	0.03	0.07	0.07	0.03	0.01	0.02	0.00	0.00	0.00	0.00	0.05	0.05	0.01	0.66		
15. CWBOD	0.80	0.06	0.01	0.01	0.03	0.02	0.01	0.00	0.02	0.08	0.02	0.01	0.01	0.06	0.04	0.44	
16. WSCS	0.85	0.14	0.25	0.03	0.01	0.14	0.00	0.04	0.01	0.00	0.00	0.02	0.01	0.04	0.00	0.01	0.53

70

PLS- SEM Direct Relationships: Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated
Mediation Model

Table 6.

Hypotheses	Original Sample	Accept/Reject & Significance	Hypothesis Number
PA → PoorMH	-0.13	Reject	H1
$PA \rightarrow CWB$	-0.02	Reject	H2
$PA \rightarrow WSC$	0.31	Accept**	Н3
$NA \rightarrow PoorMH$	0.25	Accept**	H4
$NA \rightarrow CWB$	0.19	Reject	H5
$NA \rightarrow WSC$	-0.05	Reject	Н6
Neuroticism \rightarrow NA	0.05	Reject	H7
Extraversion \rightarrow PA	0.26	Accept*	Н8

Note. Critical t values for a two-tailed test are 1.65 (significance level = 10%*), 1.96 (significance level = 5%**) and 2.58 (significance level = 1%***)

Table 7.

PLS- SEM Indirect Relationships (Mediation): Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated Mediation Model

Hypotheses	Original Sample	Accept/Reject & Significance	Hypothesis Number
Extraversion \rightarrow PA \rightarrow PoorMH	0.01	Reject	H9a
Extraversion \rightarrow PA \rightarrow CWB	0.01	Reject	H9b
Extraversion \rightarrow PA \rightarrow WSC	0.08	Accept*	Н9с
Neuroticism \rightarrow NA \rightarrow PoorMH	0.01	Reject	H10a
Neuroticism \rightarrow NA \rightarrow CWB	0.01	Reject	H10b
Neuroticism \rightarrow NA \rightarrow WSC	-0.01	Reject	H10c

Note. Critical t values for a two-tailed test are 1.65 (significance level = 10%*), 1.96 (significance level = 5%**) and 2.58 (significance level = 1%***).

Table 8.

PLS- SEM Indirect Relationships (Moderation): Standardized Path Coefficients and Results of Hypothesis Testing— of the Full PANAS Moderated Mediation Model

Hypotheses	Original Sample	Accept/Reject & Significance	Hypothesis Number
$Neur*FB \rightarrow NA$	0.06	Reject	H11
Extraversion*FB \rightarrow PA	0.17	Reject	H12

Note. Critical t values for a two-tailed test are 1.65 (significance level = 10%*), 1.96 (significance level = 5%**) and 2.58 (significance level = 1%***)

Table 9.

Means, Standard Deviations and Correlations of the Alternate Parsimonious Model

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. NEURSMALLER	3.95	1.33													
2. FBSALIENCE	2.24	0.74	0.01												
3. FBTOLERANCE	2.19	0.84	-0.10	0.61***											
4. FBMOODMOD	1.97	0.86	0.26	0.52***	0.68***										
5. FBRELAPSE	1.70	0.86	-0.06	0.22	0.43**	0.30*									
6. FBWITHDRAWAL	1.24	0.47	0.07	0.35**	0.39**	0.30*	0.61***								
7. FBCONFLICT	1.64	0.66	-0.10	0.44**	0.57***	0.54***	0.49***	0.53***							
8. NASMALLER	1.76	0.84	0.03	0.31*	0.35**	0.30*	0.26	0.33*	0.37**						
9. PASMALLER	1.32	2.59	-0.11	0.14	0.03	0.05	-0.03	0.10	-0.28*	0.17					
10. CWBOD	1.75	0.71	0.26	0.19	0.15	0.25	0.24	0.13	0.20	0.28*	-0.13				
11. ANXSMALLER	1.65	2.64	-0.03	0.27*	0.25	0.28*	0.08	0.09	0.19	0.15	0.04	0.17			
12. DEPRESSION	1.73	3.10	0.05	0.17	0.13	0.19	-0.01	0.08	0.03	0.20	-0.05	0.16	0.72***		
13. STRESS	2.98	1.39	0.09	0.29*	0.36**	0.47***	0.09	0.06	0.27	0.28*	-0.03	0.27*	0.49***	0.43**	¢

Notes: N=55.

*p < .05.

**p < .01.

***p < .001.

Table 10.

PLS-SEM: Reliability, Validity, and AVEs of the Alternate Parsimonious Model

Variable	CR	1	2	3	4	5	6	7	8	9	10	11	12	
1. NEUROTICISM	0.88	0.50												
2. FBS	0.81	0.00	0.59											
3. FBT	0.87	0.01	0.37	0.70										
4. FBMM	0.87	0.07	0.27	0.46	0.69									
5. FBR	0.91	0.00	0.05	0.18	0.09	0.78								
6. FBW	0.91	0.00	0.12	0.15	0.09	0.37	0.78							
7. FBC	0.77	0.00	0.19	0.32	0.29	0.24	0.28	0.52						
8. NA	0.90	0.00	0.10	0.12	0.09	0.07	0.11	0.14	0.60					
9. PA	0.94	0.01	0.02	0.00	0.00	0.00	0.01	0.08	0.03	0.69				
10. STRESS	0.92	0.07	0.04	0.02	0.06	0.06	0.02	0.04	0.08	0.02	0.62			
11. ANXIETY	0.88	0.00	0.07	0.06	0.08	0.01	0.01	0.04	0.02	0.00	0.03	0.55		
12. DEPRESSION	0.93	0.00	0.03	0.02	0.04	0.00	0.01	0.00	0.04	0.00	0.03	0.52	0.66	
15. CWBOD	0.77	0.01	0.08	0.13	0.22	0.01	0.00	0.07	0.08	0.00	0.07	0.24	0.18	0.46

Appendix D

Figures 1-5

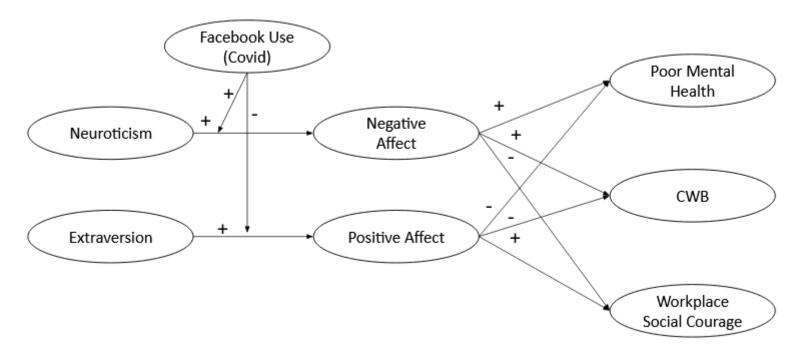


Figure 1. Theoretical Model of PANAS Mediating the Relationship between Neuroticism and Extraversion and Employee Outcomes; Including the Moderating Role of Facebook Use.

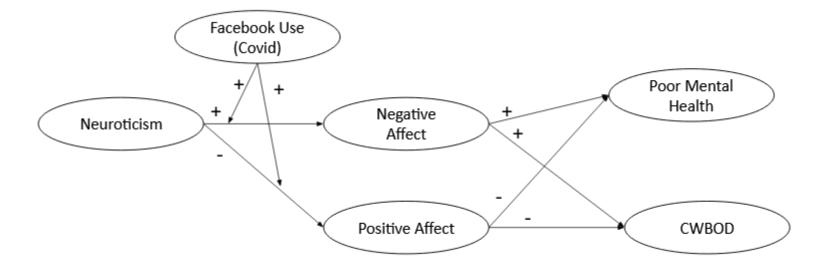


Figure 2. Alternate Theoretical Model of PANAS Mediating the Relationship between Neuroticism and Employee Outcomes; Including the Moderating Role of Facebook Use.

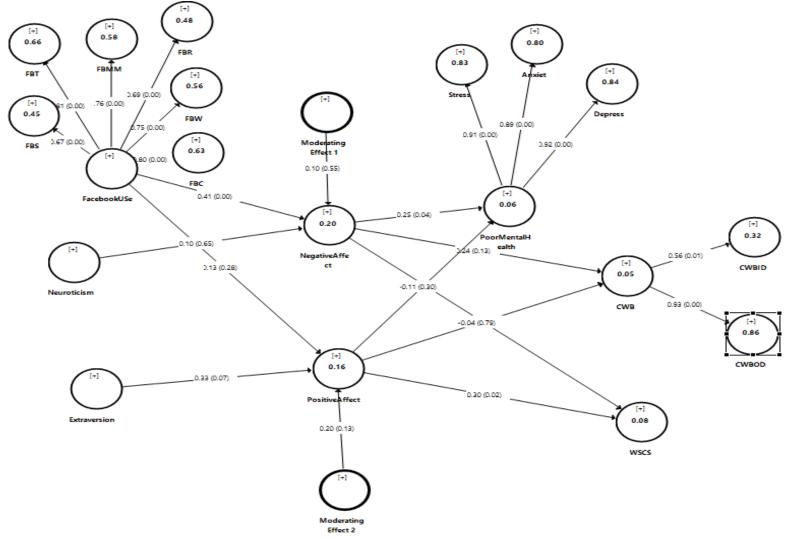


Figure 3. PLS-SEM Structural Model with Path Coefficients and Significant Values—Full Model of PANAS Mediating the Relationship between Neuroticism and Extraversion and Employee Outcomes; Including the Moderating Role of Facebook Use

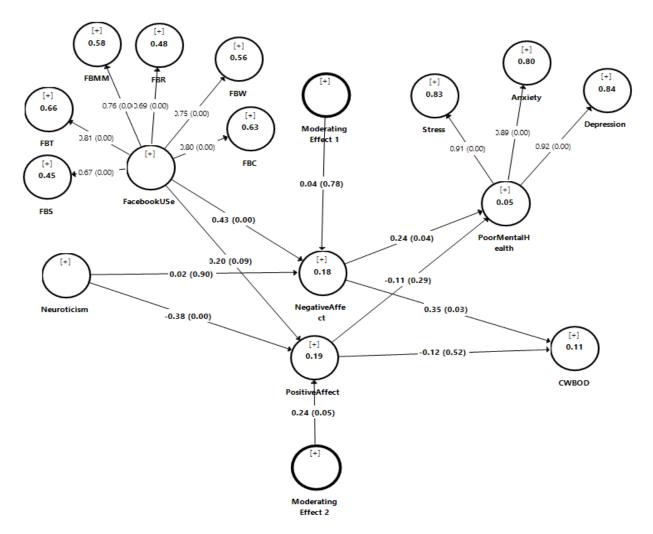


Figure 4. PLS-SEM Structural Model with Path Coefficients and Significant Values—Alternate Model of PANAS Mediating the Relationship between Neuroticism and Employee Outcomes; Including the Moderating Role of Facebook Use

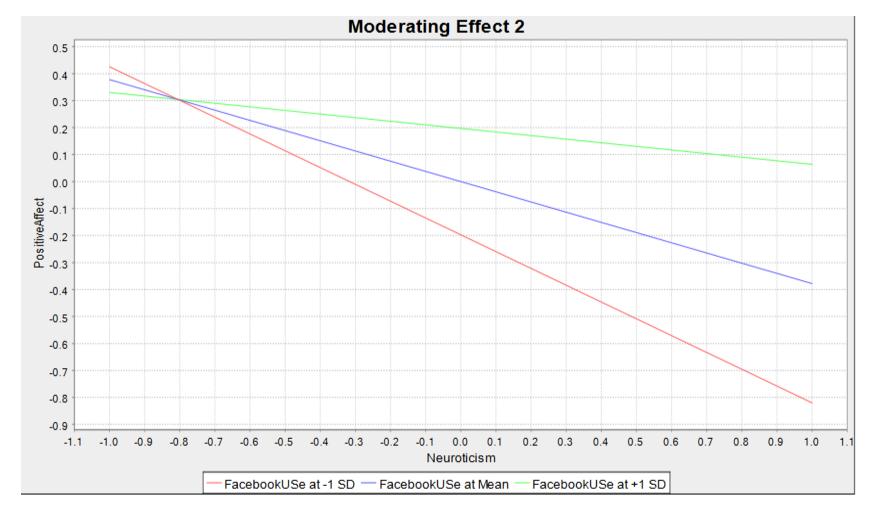


Figure 5. Simple Slope Moderating Analyses: Significant Moderation of Facebook Use between Positive Affect and Neuroticism.



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Publications:

- Howard, M. (Author), Boudreaux, M. (Author), 32nd APS Annual Convention, May 21-24, 2020, in Chicago, IL, USA, A Systematic Literature Review and Meta-Analysis of Entrepreneurial Personality: Integrating Psychology and Entrepreneurship, Association for Psychological Science, Virtual Chicago, IL. (May 12, 2020).
- Boudreaux, M. (Author & Presenter), Howard, M. (Author), 32nd APS Annual Convention, May 21-24, 2020, in Chicago, IL, USA, *Using the HEXACO-100 to measure individual entrepreneurial orientation: Introducing the HEXACO-IEO*. Association for Psychological Science, Virtual Chicago, IL. (May 12, 2020).
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