



UNIVERSIDADE CATÓLICA PORTUGUESA

# The Dark Triad in Leadership: Its Influence on the Workplace

Exploring the Impact on Employee Stress and  
the Moderating Role of Psychological Safety

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Exploring the Impact on Employee Stress and  
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Master's Final Assignment in the form of a Dissertation Presented to  
*Universidade Católica Portuguesa* to obtain a Master's Degree in Management

by

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# Resumo

Os níveis de stress dos trabalhadores podem ser significativamente afetados por determinados comportamentos de liderança, particularmente quando os mesmos estão alinhados com traços de personalidade obscura - Narcisismo, Maquiavelismo e Psicopatia. A presente dissertação explora a relação entre comportamentos tóxicos (controlo sobre os outros, agressão, manipulação, pôr em causa autoridade, *bullying* e sedução) e os níveis de stress do trabalhador, avaliando o papel moderador da segurança psicológica.

Os resultados confirmam que comportamentos como a agressão, a manipulação e o *bullying*, estão positivamente associados ao aumento dos níveis de stress dos trabalhadores. Contrariamente às expectativas, a segurança psicológica não reduz as perceções de stress em todos os casos. No entanto, a sua influência foi mais notória ao analisar interações com certos traços de liderança tóxica (controlo sobre os outros e a sedução) e o género. Além disso, as diferenças de género revelaram que homens e mulheres reagem às adversidades do local de trabalho de forma diferente, quando estão sob este tipo de liderança obscura.

Este estudo destaca a importância de ambientes psicologicamente seguros para o bem-estar dos colaboradores, devendo assim as organizações reconhecer o impacto destes comportamentos e dar ênfase a uma liderança ética.

Palavras-chave: Traços de Personalidade Obscura; Comportamentos de Liderança; Stress; Segurança Psicológica; Liderança Obscura



# Abstract

Leadership behaviors can significantly impact employee stress levels, particularly when those behaviors align with the Dark Triad Traits — Narcissism, Machiavellianism, and Psychopathy. The present dissertation explores the relationships between leader toxic behaviors (control over others, aggression, manipulation, questioning authority, bullying, and seduction) and employee stress, examining the moderating role of psychological safety. Gender differences are also evaluated, as stress levels are perceived differently.

The findings indicated that certain Dark Triad behaviors, such as aggression, manipulation, and bullying, are positively associated with the increase of stress levels in employees. Contrary to expectations, psychological safety does not significantly reduce stress perceptions in all cases. Instead, its influence was more noticeable when interacting with other toxic leadership traits (such as control over others and seduction) and gender. Furthermore, gender differences revealed that men and women experience stress and react to workplace adversities differently under toxic leadership behaviors.

This study has important implications for organizations, as fostering a psychologically safe environment is extremely important to employee well-being. Therefore, organizations must recognize the impact of these behaviors and emphasize ethical leadership.

Keywords: Dark Triad Traits; Leadership behaviors; Psychological Safety, Employee Stress; Toxic Leadership.



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## Introduction

Leadership has become a decisive factor in shaping workplace cultures and employee well-being in today's workplace environment. While effective leadership tactics and actions create a sense of trust, collaboration, and safety, certain toxic leadership behaviors can have the opposite effect. Behaviors associated with the Dark Triad Traits (DTT) - Narcissism, Machiavellianism, and Psychopathy, when exhibited by managers, can have a significant impact on employee health and well-being. These toxic tendencies are major contributors to an unhealthy work environment, putting employees' psychological safety at risk. Understanding the damaging effects of these leadership behaviors is essential to address their impact on the worker and to promote a safer and more supportive environment. These actions associated with the Dark Triad are often manifested in leadership styles that prioritize personal gains over collective success. Such behaviors can hinder open communication and prevent the implementation of a safe, collaborative, and supportive workplace environment.

The presence of DTT in leadership roles not only influences employees individually, but also extends to the overall organizational climate. Leaders who exhibit these traits foster an environment characterized by increased stress, decreased trust, and decreased job satisfaction. Addressing the impact of these leadership tendencies is critical to cultivate a workplace that values psychological safety, employee mental stability, and personal success and growth.

The main goal of this dissertation is to explore how leaders with Dark Triad personalities affect their employees' stress levels and whether psychological safety has a moderating role. Specifically, it aims to understand how these toxic leadership behaviors can contribute to mental health challenges and issues. Gender is also analyzed, as men and women perceive stress differently.

The motivation behind this research is based on the importance of a healthy work environment in ensuring that employees feel safe, valued, and motivated, as it significantly improves their satisfaction, mindset, and overall quality of life. This satisfaction is essential to the mental safety of each worker and keeps them happier, mentally healthier, and in their position longer.

This study offers valuable insights for organizations. By identifying each specific leadership behavior that elevates stress and destabilizes a sense of psychological safety, some policies can be implemented to promote employee well-being and support a more sustainable and positive workplace environment.

This dissertation is divided into five chapters. The Literature Review (Chapter 1) begins by addressing the three core traits in the Dark Triad, such as their key characteristics, and how these behaviors manifest in managerial roles. Next, the focus shifts to the key impacts on employee well-being and mental health, including symptoms such as stress, burnout, and anxiety, examining how these challenges can negatively impact employee performance and overall health. Psychological safety is explored as a moderating factor between toxic leadership behaviors and employee stress levels. This section focuses on defining psychological safety and aims to clarify whether a safe, supportive, and inclusive work environment can mitigate the impacts of harmful leadership. The final section of Chapter 1 builds a conceptual framework that integrates these elements, forming and presenting the three main hypotheses of this study.

The Methodology chapter (Chapter 2) contains the research design, including the data structure, as well as the procedure. This section also outlines the statistical methods applied for the analysis.

Chapter 3, Results, presents the findings of the relationships between the Dark Triad behaviors and employee stress, highlighting which toxic traits are strongly linked to employee stress. It also reports the moderating effect of psychological safety and the influence of gender.

The Discussion (Chapter 4) interprets the findings, detailing the key results for each hypothesis, and explores theoretical contributions.

Finally, Chapter 5 refers to practical implications and concludes with the principal limitations of the study and future research.



# Chapter 1

## Literature Review

### 1. The Dark Triad Personality Traits in Direct Managers

Narcissism, Machiavellianism, and Psychopathy are recognized as the core traits of the Dark Triad personality (Paulhus & Williams, 2002). These traits are defined by grandiosity and self-centeredness (narcissism), manipulation and distrust (Machiavellianism), and a lack of empathy and impulsive behavior (psychopathy) (Jonason, *et al.*, 2017). However, these three primary traits share a strong sense of selfishness, a drive to place personal needs and goals above others, and persistent cruelty and insensitivity, which results in interpersonal manipulation (Cunha, *et al.*, 2024). Leaders who exhibit these behaviors often engage in manipulative and self-serving actions, driven by a desire to make decisions that prioritize their interests and goals over the collective well-being (Jonason, *et al.*, 2015).

While positive leadership behaviors play a critical role in motivating employees, it is also important to recognize when the work environment becomes toxic and the leadership becomes abusive (Lainidi, *et al.*, 2023). Although supportive leaders inspire and uplift teams and employees, leaders who vastly demonstrate these DTT tend to engage in destructive leadership styles (Gruda, *et*

*al.*, 2022). Such dark and cruel behaviors can jeopardize organizational performance and outcomes, highlighting the importance of organizational commitment (Cesinger, *et al.*, 2022), which is essential to promote a safer and more stable environment for the organization.

According to the American Psychological Association (APA) Dictionary (2018), the concept of personality trait consists of “a relatively stable, consistent and enduring internal characteristic that is inferred from a pattern of behaviors, attitudes, feelings and habits in the individual”.

It is also important to understand the distinction between traits and states, especially in the context of the Dark Triad. According to The Oxford Review Encyclopaedia of Terms, a state is a temporary condition experienced over a specific period, while a trait is a long-term characteristic that is ingrained in an individual’s personality. Therefore, traits such as narcissism, Machiavellianism, and psychopathy are enduring and deeply ingrained characteristics that shape an individual’s constant behavior.

## 1.1. Narcissism, Machiavellianism and Psychopathy

Narcissism can be considered a persistent pattern of behaviors characterized by an intense prioritization of personal desires, dominance, and ambition over the needs and well-being of others (Vaknin, 2011). Therefore, narcissistic people see themselves as highly important, focusing mainly on themselves and seeking power (Gruda & Hanges, 2023). Previous research has shown that narcissistic tendencies can lead to various issues, significantly affecting an individual’s work habits, relationships, and self-esteem (Spencer, *et al.*, 2007). In the business world, individuals with narcissistic traits are often perceived as charismatic visionaries who actively seek leadership roles, leveraging their persuasive abilities, business insight, and capacity to attract followers (D’ Souza & Lima, 2015). While they can

be very successful leaders, their constant need for admiration and self-interest can eventually harm productivity, teamwork, and workplace environment (Gruda & Hanges, 2023). Employee silence can harm organizations, and managers' high levels of narcissism may foster conditions that indirectly encourage this silence (Hamstra, *et al.*, 2021).

Machiavellianism leads people to engage in harmful behaviors such as bullying, dishonesty, aggression, and violence to elevate their social power, control others, and dominate conversations (Selvarajan & Senarathna, 2023). Despite exhibiting incredibly harmful behaviors, Machiavellians tend to be adaptable, adjusting their behavior whenever it suits them, using cooperation to achieve their interests. (Maftai, *et al.*, 2022). A manager with Machiavellian traits, such as dishonesty and self-interest, is unlikely to gain the trust of employees, even when they promote ethics or act virtuously, and these efforts often appear insincere and fail to have a positive impact (Kwak & Shim, 2017).

Psychopathy is a term used in various contexts to describe different types of individuals. However, it is primarily recognized as a personality disorder characterized by a distinct set of traits (Glenn & Raine, 2014). By lacking a conscience, psychopaths' perception of the world differs significantly from a typical individual. While their understanding of emotions is shallow and superficial, they can convincingly mimic and fake their emotions, often deceiving others into believing they are caring and emotionally well-adjusted human beings (Thompson, *et al.*, 2014). Psychopathic personality traits have a significant impact on society. Among criminal populations, individuals with these characteristics are disproportionately responsible for crimes, especially violent ones. Outside the criminal sphere, psychopathic traits contribute to widespread corruption, exploitation, manipulation, and deception, affecting society on both large and small scales (Glenn & Raine, 2014).

In addition to the negative organizational outcomes, primary psychopathy in leaders is likely to harm employees who interact with them. Traits such as cruelty, lack of empathy/guilt, and self-centeredness can lead to behaviors that strain and damage relationships with others (Laurijssen, *et al.*, 2024).

## 2. Employee Well-Being and Mental Health Outcomes

Employees who work for managers with DTT behaviors often face more challenges to their well-being and secure mental health than those who are not in this type of situation. The manipulative, self-centered, and callous behaviors can foster stress, anxiety, burnout, and a toxic work environment. These types of actions can create complicated conditions in employees' personal lives, making it very difficult for them to surpass these feelings.

According to the World Health Organization (WHO), Mental Health Conditions include mental illness and psychological disabilities, and other conditions characterized by significant distress, functional impairment, and an increased risk of self-harm. Based on the same source, these conditions cause massive difficulties in various aspects of life, whether personal or professional. Also, giving the data provided, in 2019, the number of people with mental disorders was 970 million, with anxiety and depression being the most common ones. According to WHO (2010), a healthy workplace is one where employees and management work together through a continuous process of improvement, in a way that is possible to safeguard and promote the health, safety, and well-being of all workers.

In the workplace environment, companies are increasingly concerned about the psychological and mental health of their teams, since poor mental health has a significant impact on the global economy (Kim *et al.*, 2023).

## 2.1. Employee Stress

Individuals face a variety of workplace stressors throughout their lives, such as mistreatment and abusive supervision/leadership, in addition to the demands of daily life, leading to undesirable outcomes for both employees and organizations (Bingül & Göncü-Köse, 2024).

According to the American Psychological Association (APA), stress is considered a normal response to everyday challenges. However, it becomes an issue when it is disruptive and interferes with daily functioning. On the other hand, WHO (2023) points out that people with anxiety disorders often experience fear and worry that is considered intense and excessive. This disorder can interfere with daily activities and affect personal, family, social, school, and work life. Lastly, burnout is viewed as a result of chronic workplace stress that has not been successfully managed (WHO, 2019).

As reported by the *Ordem dos Psicólogos Portugueses* (OPP) (2018), psychosocial risks such as work-related stress, harassment, violence at work, burnout, workaholism, fatigue, and mental strain at work are among the greatest threats to workers' physical, mental health, and productivity.

The Occupational Safety and Health Administration (OSHA) estimates 83% of U.S. employees experience work-related stress. Similarly, the Anxiety & Depression Association of America (ADAA) identifies Generalized Anxiety Disorder (GAD) as the most prevalent anxiety disorder among adults, affecting 6.8 million individuals. Furthermore, the APA's 2023 "Work in America" survey reveals that 57% of employees reported adverse outcomes due to work-related stress, commonly associated with burnout.

## 2.2. Symptoms and Effects on Employee Productivity and Performance

In the presence of leaders and managers with complicated and disturbed personalities and in an environment that is considered toxic and disruptive, it is normal for employees to experience numerous side effects and concerning symptoms that are detrimental to their mental health and safety.

Poor mental health is often manifested as depression, anxiety, or burnout and can significantly reduce motivation, productivity, and increase stress, causing serious repercussions for individuals and their relationships (Psychology Today, 2020). Employees have reported negative effects due to work-related stress, and these include a lack of interest, motivation, energy, and lack of effort at work (APA, 2021). Mental health disorders often reduce employees' work performance by impacting their self-confidence, attendance, motivation, productivity, physical abilities, while also reducing teamwork and increasing conflicts in the workplace (Acuity International, 2024).

## 3. The Moderating Role of Psychological Safety in the Workplace

### 3.1. Definition and the Importance of Psychological Safety in Organizations

Psychological safety is a concept that has been widely studied since the 1990s and has become fundamental to provide effective corporate cultures, driving innovation, improving overall organizational success, and employee well-being in the workplace (Anyamesem-Poky & Parmar, 2024).

Previously, it was studied in 1965 by the psychologists Edgar H. Schein and Warren G. Bennis, who defined psychological safety as a climate that encourages employees and tolerates any kind of failure without payback, abandonment, or guilt. The LeaderFactor Blog (2023) points out that Schein and Bennis uncovered a human being truth, believing that “people don’t want to be punished for what makes them human”.

In 1999, Dr. Amy Edmondson, a professor at Harvard Business School, delved into the concept of psychological safety, later introducing the term “team psychological safety”. It was defined as a “shared belief among the team members that is safe to engage in interpersonal risk-taking”.

Psychological safety also ensures that employees feel their opinions are valued, regardless of their position or rank within the hierarchy, while also providing trust among coworkers, confidence in the leadership, and faith in the organization’s structure and guidelines (Anyamesem-Poky & Parmar, 2024). On the contrary, if employees do not feel safe in an organization and believe that their opinions won’t be valued and that they will be punished for their mistakes, they tend not to share their concerns at all. (Liu, *et al.*, 2023).

Within the organization, psychological safety is important, not only because team members feel more engaged and motivated, as they feel they matter and they can speak up with no fear, but leads to better decision making and fosters a culture of continuous learning and improvement, as employees feel safer and comfortable sharing their mistakes and learning from failure (Gallo, 2023). Psychological safety is an essential element for the continuous improvement of organizational performance, achieved through effective collaboration among members of the organization. (Lee, *et al.*, 2023).

A safe and healthy working environment may minimize tension and conflicts, improve staff retention, work performance, and productivity, but most importantly, it is a fundamental right. (WHO, 2024).

### 3.2. The Impact of Managers' Dark Triad Personality Traits on Employee Safety

The role of managers in creating a good working environment is critical, as their behavior and characteristics have a significant impact on employee well-being. In most cases, employees look up to leaders as role models.

These types of Dark Triad personality leaders are more likely to demonstrate a leadership that is considered destructive (Elbers, *et al.*, 2023). Although engaged employees feel energized and are effectively connected to their work activities and can perform their commanded tasks correctly (Schaufeli, *et al.*, 2002), employees who are in the presence of a manager with a Dark Triad personality feel underappreciated, unsafe, and threatened (Soral, *et al.*, 2022).

### 3.3. Organizational Factors that Directly Contribute and Promote the Sense of Psychological Safety

To produce a sense of safe and stable mental health among employees, managers must create and maintain a mentally healthy workplace environment (Pinhatti *et al.*, 2024). To approach and create a healthy workplace, there is a framework that provides protection and promotes the employees' mental health (**Figure 1**). By applying this method, it is possible to prevent harm, as companies are protecting workers from work-related causes and risks. Another possibility would be promoting the positive to develop optimistic aspects such as employees' strengths, capacities, and abilities. Lastly, by responding to problems, companies would be addressing mental health problems and giving the necessary care that workers may need (LaMontagne, *et al.*, 2014; LaMontagne, *et al.*, 2019; Nebbs, *et al.*, 2023).



**Figure 1:** Integrated Approach to Workplace Mental Health (Source: Nebbs *et al.*, 2023)

Although there is no “formula” for adopting a specific and customized approach to each and distinct organization (LaMontagne *et al.*, 2014; LaMontagne *et al.*, 2019; Nebbs *et al.*, 2023), it is a way to outcome mental health issues and promote a sense of psychological safety in the workplace environment.

## 4. Leader Dark Triad Behaviors, Employee Stress, and Psychological Safety

Recent studies have shifted from examining only organizational-level to exploring the impact of leaders with DTT on the subordinate performance and attitudes (LeBreton, *et al.*, 2018). Volmer *et al.* (2016) found that leaders with narcissistic behaviors were associated with both objective and subjective indicators of career success and did not negatively impact employee well-being. In contrast, Machiavellian leaders were linked with lower career satisfaction and increased emotional exhaustion. Likewise, psychopathic managers were shown to harm job satisfaction. (Volmer *et al.*, 2016; LeBreton *et al.*, 2018).

### 4.1. Research Model

Building on the information presented above and existing literature, this study will examine how Dark Triad personality traits in leadership influence employee stress levels and if psychological safety has a moderating role. To guide and proceed with this investigation, three key hypotheses have been established.

**H1:** *Dark Triad Traits leader behaviors are positively associated with the increase in employees' stress levels.*

**H2:** *Psychological Safety moderates relationships between leaders' Dark Triad Trait behaviors and stress.*

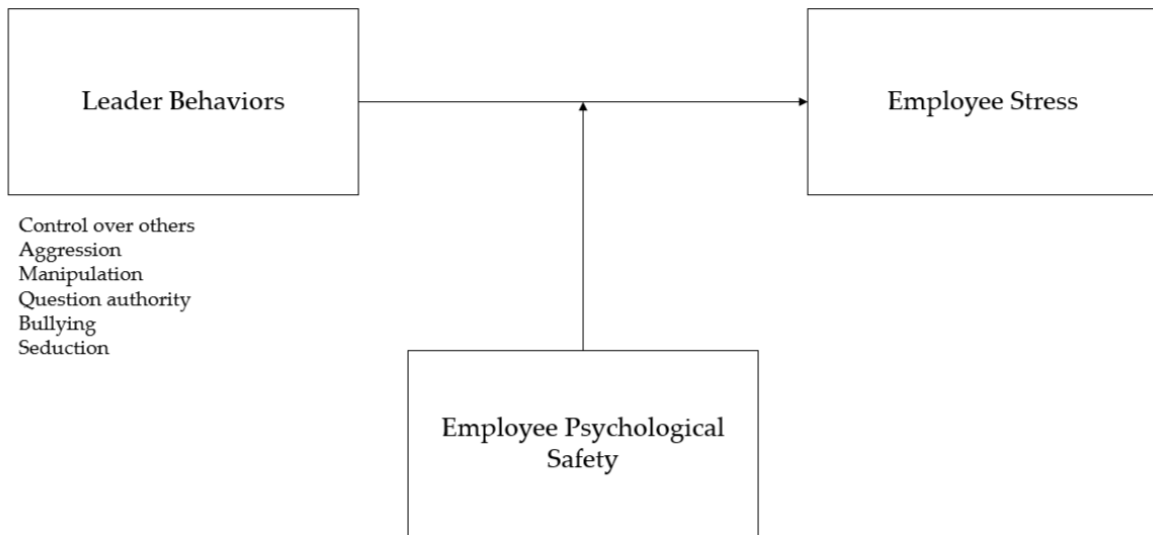
**H2a:** *In case of high psychological safety conditions, it is likely that employees feel lower stress levels.*

**H3:** *Employee gender moderates relationships between leaders' behaviors, employee stress, and psychological safety, as women may experience higher stress levels than men.*

The first hypothesis (*H1*) will examine whether these controlling, manipulative, aggressive, and uncomfortable behaviors influence employee stress. Working under such leadership may lead to fear, emotional exhaustion, and constant pressure. The second hypothesis (*H2*) investigates whether psychological safety moderates the relationships between stress levels and DTT behaviors, suggesting that psychological safety can diminish the negative impact of this type of leadership. Then, *H2a* predicts that when psychological safety is high, employees may be more resilient towards the effects of stress caused by toxic leadership, as they feel more protected and safer. Additionally, this research will consider that gender plays a role in how employees perceive toxic leadership (*H3*) and how that affects them. Therefore, it is expected that women perceive higher stress levels.

## 4.2. Conceptual Framework

The proposed conceptual framework (**Figure 2**) illustrates the relationships between leader behaviors, employee stress, and psychological safety in the workplace. It suggests that specific behaviors (controlling others, aggression, manipulation, questioning authority, bullying, and seduction), when performed by leaders, directly contribute to an increase in employee stress. Employee psychological safety is positioned as a moderator, indicating that whenever employees feel psychologically unsafe, the impacts of these behaviors may intensify stress. This specific framework highlights the role of leadership in shaping workplace well-being and the importance of a moderator such as psychological safety to ensure employees feel safe in the organization.



**Figure 2:** Proposed Conceptual Framework

# Chapter 2

## Methodology

### 1. Methods

#### 1.1. Research Design

As outlined earlier, this study follows a quantitative methodology, using a large dataset of ratings and other data to investigate the relationships between Dark Triad behaviors in leaders, employee stress levels, and the presence of psychological safety in the workplace.

The primary data source for this study was Glassdoor, a recognized platform where employees anonymously review their personal workplace experiences and opinions. The dataset consisted of a repository of 19 116 American employee review ratings. These ratings were conducted by a team of over 500 trained evaluators who followed a standardized methodology designed to ensure consistency and reliability. This type of approach included the identification of 15 key red-flag behaviors (Bratsis, 2019) related to the DTT, and identifying which trait was more suitable and adjusted to each review.

For a statistical analysis, Stata 18.5 was used to process and examine data. The Glassdoor dataset was imported into Stata, where the procedure began.

## 1.2. Data Structure and Procedure

Firstly, to identify reports that reflected employees' perceptions of psychological safety in the workplace, it was essential to develop a list of relevant and approximate keywords. Consequently, a Psychological Safety Keyword Dictionary (see Chapter 2, 1.3. Measures, 1.3.3. Psychological Safety) was created to identify which terms and words were most likely to elicit a positive understanding of psychological safety from employees.

Next, to assess employee stress-related reviews, Linguistic Inquiry and Word Count (LIWC), allowed to detect and identify stress-related language within the provided data, following a specific Stress Dictionary (LIWC Dictionary Repository) (Wang *et al.*, 2016). This tool analyzed expressions and words connected to overall workplace distress. In this case, the focus was on negative indicators of stress (see Chapter 2, 1.3. Measures, 1.3.2. Stress), prioritizing terms and keywords that reflect psychological and emotional issues.

To identify the key behaviors associated with the Dark Triad in the dataset, following the red-flag method previously mentioned, multiple and adapted terms were chosen (see Chapter 2, 1.3. Measures, 1.3.1. DTT) to distinguish each trait, since the three have different and specific characteristics.

For this Dark Triad and psychological safety study, a set of relevant variables was selected and aggregated to analyze workplace perceptions and employee well-being. The integration of the chosen variables (see Chapter 2, 1.3. Measures, 1.3.4. Control Variables) allowed a more comprehensive evaluation of how employees experience and report the pros and cons of their workplace environment, contributing to a deeper understanding of psychological safety factors.

## 1.3. Measures

### 1.3.1. DTT

To capture a comprehensive representation of each DTT, a selection of relevant words associated with toxic behaviors (**Table 1**) was used to understand which characteristics were more suitable for each trait. Therefore, the behaviors were distributed for narcissism, Machiavellianism, and psychopathy in **Table 2**.

Behavior	Narcissism	Machiavellianism	Psychopathy
Overclaiming credit	Yes	No	No
Actively promoting themselves	Yes	Yes	No
Being aggressive after negative feedback	Yes	No	No
Treating members differently for self-benefit	Yes	No	No
Demonstrate a selfish mindset	No	Yes	No
Trying to control or minimize others' influence	Yes	Yes	Yes
Not sharing knowledge with colleagues	No	Yes	No
Using manipulation to reach personal goals	No	Yes	Yes
Searching for personal benefit without considering consequences	Yes	Yes	Yes
Competing rather than cooperating	No	Yes	Yes
Making quick, short-term decisions without considering consequences	No	No	Yes
Making bold and risky decisions regarding rules or ethics	Yes	No	Yes
Questioning authority and rules	No	No	Yes
Bullying and criticizing coworkers	No	No	Yes
Attract coworkers into risky behaviors or romantic relationships	No	Yes	Yes

**Table 1:** Dark Triad Traits - 15 Red-Flag Behaviors (Bratsis, 2019)

<b>Narcissism</b>	<b>Machiavellianism</b>	<b>Psychopathy</b>
"Overclaim"	"Self-Promote"	"Control Others"
"Self-Promote"	"Selfish"	"Manipulation"
"Aggression"	"Control Others"	"Personal Benefit"
"Trophy"	"Not Sharing Knowledge"	"Compete"
"Control Others"	"Manipulation"	"Quick Decision"
"Personal Benefit"	"Personal Benefit"	"Risky Decision"
"Risky Decision"	"Compete"	"Question Authority"
-	"Seduction"	"Bullying"
-	-	"Seduction"

**Table 2:** The Dark Triad Key Characteristics

Based on the table above, the behaviors selected were control over others, aggression, manipulation, questioning authority, bullying, and seduction, as they are particularly relevant to the analysis of stress. Aggression, bullying, and manipulation are likely to create a toxic environment that leads to fear, anxiety, and emotional exhaustion. Controlling others can limit employees' autonomy, making them more frustrated. Challenging authority can lead to uncertainty and conflict, adding to stress. Finally, seduction can create discomfort and make employees feel unsafe.

When these behaviors are present by a leader, employees may experience psychological pressure, which can negatively impact their well-being and mental health.

### 1.3.2. Stress

To assess employee stress levels, a stress dictionary given by LIWC (Wang *et al.*, 2016) was used as a guide to achieve employees' perception of stress inside the organization. So, keywords such as stress, burnout, anxiety, angry, exhaust<sup>\*1</sup>, frustrat<sup>\*</sup>, fatigue, and tired were selected to capture the most relevant ratings, where employees explicitly express their mental concerns, as well as other work-related issues.

### 1.3.3. Psychological Safety

A Psychological Safety Keyword Dictionary (**Table 3**) was created, composing terms associated with the presence of Psychological Safety, rather than its absence. Keywords such as trust, empathy, transparency, and support were selected, as they are more likely to appear in reviews from employees who feel psychologically safe and protected in the organization.

Consequently, these keywords were generated and put into the dataset. It was also created and generated a psychological safety mean using all the keywords in **Table 3** and divided it by the total number.

---

<sup>1</sup> While using Stata, the asterisk (\*) was purposely included in the search terms to capture all variations of words beginning with "exhaust" and "frustrat". This procedure ensured that all the related terms were included (e.g., "exhaustion", "exhaustive", "frustrated", "frustrating").

<b>Keyword</b>	<b>Context / Meaning (in the Workplace)</b>
<b>“Trust”</b>	Employees feel sure, secure, and confident about the intentions of their managers.
<b>“Support”</b>	Reflects the presence of encouragement, assistance, and collaboration.
<b>“Empathy”</b>	Leaders show understanding and care for their workers.
<b>“Transparency”</b>	Open and honest communication from management.
<b>“Inclusive”</b>	There is an acceptance of different opinions and backgrounds, so everyone has a sense of belonging.
<b>“Support”</b>	Managers assist workers as they may need.
<b>“Recognition”</b>	Employees receive acknowledgement and appreciation for their contributions and efforts.
<b>“Understanding”</b>	Leaders recognize and respond effectively with clear communication, respect, and empathy.
<b>“Belonging”</b>	Sense of being accepted, valued, and included.
<b>“Empowerment”</b>	Employees can contribute with ideas, take initiative, and that is valued within the organization.
<b>“Fair”</b>	Equitable treatment of all employees regarding their differences.
<b>“Well-being”</b>	Overall physical, mental, and emotional health of employees.
<b>“Honest”</b>	Refers to the practice of integrity, truthfulness in communication, and ethical behavior

**Table 3:** Psychological Safety Keyword Dictionary

#### 1.3.4. Control Variables

New variables were generated using the information available in **Table 4**, by summing the relevant behavioral terms and indicators for each DTT (**Table 2**). To represent the total of occurrences of narcissistic, Machiavellianism, and psychopathic-related terms, other variables were also generated. To create a variable for a narcissistic approach, terms were summed according to the presence of behaviors such as overclaiming achievements, self-promotion, aggression, seeking trophies, controlling others, prioritizing personal benefits, and engaging in risky decision making. Similarly, a Machiavellianism variable was generated the same way, using behaviors related to manipulation, competition, selfishness, cover-up knowledge, and seduction. Lastly, behaviors of manipulation, impulsivity, defiance, bullying, and seduction were included to create a psychopathy variable.

To quantify the percentage of these DTT and normalize the occurrences of each one of them, their respective composite scores referred above were divided by the total number of behavioral indicators. Also, to facilitate the interpretation, each frequency value was converted into a percentage.

Next, in the variable list provided in the dataset, it was understood, chosen, and consequently aggregated with the previously generated variables stress, stress percentage, and psychological safety, which were suitable and significant to proceed with a psychological safety study (**Table 4**). These variables were also aggregated with the DTT chosen.

<b>Variable</b>	<b>Meaning / Why it is adequate for a Stress / Psychological Safety Study</b>
<b>Word Count</b>	Refers to ratings word count. May reflect the depth of experiences and concerns employees' write related to their personal mental safety.
<b>Overall rating</b>	Represents employees' overall satisfaction, which can be related to their psychological safety in the workplace.
<b>Career Opportunities</b>	Refers to career opportunities. Measures growth chances inside a company. If there are limited opportunities, employees may feel less secure.
<b>Compensation Benefits</b>	Reflects employees' perceptions on fairness and equality in pay and benefits. Employees who feel unfairly treated may feel less psychologically safe.
<b>Gender</b>	Allows an examination of gender differences in psychological safety.
<b>ID</b>	Ensures accurate tracking and individual analysis by serving as a unique identifier for each review.
<b>Review Date</b>	Refers to the date that employees published their reviews. May be useful and interesting to understand patterns, if it is a collective case.

**Table 4:** Control Variables chosen to follow a Psychological Safety Study

To ensure data quality and to maintain the analysis's reliability, some specific criteria were applied to the dataset. Therefore, in the ratings available, some were excluded if their frequency (number of times a particular review appears in the dataset) exceeded three. This allowed for a reduction of potential bias from repeated data. Additionally, ratings were kept if the margin of confidence score was above 0.99, ensuring that the reviews included in the study had a high level of credibility and verified data.

After these procedures and a careful selection of words and terms that were specifically related to the Dark Triad, Stress and Psychological Safety, instead of 19 116 ratings (previously selected by the evaluators), the number of observations decreased to 3 625. So, for this case, the sample size (n) will be 3 625.

## 2. Data Analysis

### 2.1. Statistical Approach

#### 2.1.1 MEGLM Model

Multilevel models are a type of regression analysis designed to examine relationships across multiple levels within hierarchically structured data. They allow for capturing contextual influences and account for similarities within groups or sub-groups. (Harris, 2022).

The model chosen for this investigation was the Multilevel mixed-effects Generalized Linear Model (MEGLM). The MEGLM allows the analysis of different response distributions, as long as they are based on normally distributed random effects (StataCorp, 2013). The approach used alongside this MEGLM model was composed of the terms used to refer to the main toxic behaviors chosen, the control variables, and it was specified at the employer level. To enhance the model's reliability, robustness was applied, ensuring robust variables were clustered at the highest level of the multilevel model (StataCorp, 2013).

It was added to the model the specification family (binomial) and link (logit). Link functions ensure that outputs are transformed into a probability scale, going from 0 to 1 (Bhuiyan, 2024). Since the purpose of this study is to measure whether

an employee reports high stress or not, the percentage wouldn't be trustworthy if this were not applied.

# Chapter 3

## Results

### 1. Pairwise Correlation

The following table (**Table 5**) presents the means, standard deviations, Pearson correlation coefficients, and p-values, along with their statistical significance. It focuses on how specific leadership traits (performed by leaders) relate to stress levels and other workplace factors (perceived by their followers).

As it was expected, stress is positively correlated with bullying ( $r = 0.130$ ;  $p = 0.000$ ), aggression ( $r = 0.119$ ;  $p = 0.000$ ), manipulation ( $r = 0.061$ ;  $p = 0.000$ ), and seduction ( $r = 0.058$ ;  $p = 0.000$ ). This suggests that individuals experience higher stress levels when leaders engage in more aggressive, manipulative, and toxic behaviors.

On the other hand, psychological safety does not show any strong correlations with other variables. The small negative correlation with stress ( $r = -0.016$ ) is not statistically significant, perhaps in this specific dataset. This negative correlation may support the idea that if employees feel less psychologically safe, they might experience slightly more stress. However, this relationship is weak and not significant.

Bullying stands out as a particularly problematic trait since it is closely linked to aggression ( $r = 0.208; p = 0.000$ ), seduction ( $r = 0.179; p = 0.000$ ), manipulation ( $r = 0.120; p = 0.000$ ) and control over others ( $r = 0.071; p = 0.000$ ). Aggression is also a trait that shows strong associations with other negative behaviors. It is significantly correlated with bullying ( $r = 0.208; p = 0.000$ ), control over others ( $r = 0.159; p = 0.000$ ) and manipulation ( $r = 0.076; p = 0.000$ ). These values reflect that leaders who exhibit aggressive tendencies are also likely to manipulate, assume control over others, and engage in intimidating behaviors.

For the contextual variables, word count has a slight and negative correlation with stress ( $r = -0.052, p = 0.002$ ). Additionally, it is positively correlated with psychological safety ( $r = 0.148; p = 0.000$ ), aggression ( $r = 0.063; p = 0.000$ ) and manipulation ( $r = 0.095; p = 0.000$ ), suggesting that those who feel safer within the workplace, and those who experience violent behaviors, may express themselves more detailed. Stress is negatively correlated with overall ratings ( $r = -0.060; p = 0.000$ ), reinforcing that employees who rate their workplace more positively tend to report lower stress levels. Psychological safety is positively associated with overall ratings ( $r = 0.117; p = 0.000$ ), meaning employees who feel secure in their workplace environment are more likely to rate the organization favorably. Both career opportunities and compensation and benefits exhibit negative correlations with stress ( $r = -0.015; r = -0.006$ ). However, it shows that neither financial compensation or career growth has a significant impact on employee stress levels. Gender does not show a significant correlation with stress ( $r = 0.016$ ) or psychological safety ( $r = -0.010$ ). It is negatively correlated with bullying ( $r = -0.069; p = 0.000$ ), and it suggests that men report experiencing more bullying from their leaders when compared to women (see Notes Table 5).

Notes: (f) - follower; (l) - leader; <sup>a</sup> female = 1, male = 2; n = 3 625; \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05

Variables	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Stress (f)	0.016	0.019													
(2) Psychological Safety (f)	0.009	0.028	-0.016												
(3) Control Over Others (l)	0.219	0.241	0.009	0.002											
(4) Aggression (l)	0.081	0.178	0.119***	-0.0001	0.159***										
(5) Manipulation (l)	0.194	0.243	0.061***	-0.012	0.1507***	0.076***									
(6) Question Authority (l)	0.129	0.183	0.035*	-0.015	-0.033*	0.035*	-0.039*								
(7) Bullying (l)	0.095	0.183	0.130***	-0.006	0.071***	0.208***	0.120***	0.017							
(8) Seduction (l)	0.024	0.109	0.058***	-0.012	-0.036*	0.012	0.045**	-0.022	0.179***						
(9) Word Count (f)	84.53	55.54	-0.052**	0.148***	0.026	0.063***	0.095***	-0.018	0.034*	0.024					
(10) Overall Rating (f)	2.293	1.124	-0.060***	0.117***	-0.043**	-0.123***	-0.138***	0.025	-0.129***	-0.063***	-0.002				
(11) Career Opportunities (f)	2.373	1.244	-0.015	0.065***	-0.052**	-0.071***	-0.079***	0.009	-0.081***	-0.043***	0.018	0.646***			
(12) Compensation & Benefits (f)	2.771	1.282	-0.006	0.031	0.003	-0.035*	-0.093***	0.022	-0.035*	-0.061***	-0.014	0.507***	0.459***		
(13) Gender <sup>a</sup> (f)	1.504	0.500	0.016	-0.010	0.016	-0.027	-0.002	-0.0002	-0.069***	-0.043**	-0.040*	0.020	-0.009	0.028	
(14) Review Submission Date (f)	20742.96	747.05	0.023	0.005	0.001	0.029	0.045**	-0.01	0.036*	0.030	-0.031	-0.104***	-0.078***	-0.062***	-0.035*

**Table 5:** Means, Standard Deviations, and Pearson Correlation Coefficients

## 2. The Dark Triad and Workplace Stress Levels

Following the content already presented in this dissertation and the respective hypotheses, to examine relationships between the Dark Triad and workplace stress levels (see Chapter 1, 4.1. Research Model, *H1*), the purpose was to analyze specific DTT behaviors (such as control over others, aggression, manipulation, question authority, bullying and seduction) and its effects on employee stress. It also included the contextual variables gender, overall rating, compensation and benefits, word count, and review date.

Several leadership traits are significantly associated with higher employee stress levels. Aggression ( $\beta = 1.355$ ;  $p = 0.000$ ) is one of the strongest predictors, indicating that employees who work under aggressive leadership are more likely to experience stress. Similarly, manipulation ( $\beta = 0.608$ ;  $p = 0.000$ ) and bullying ( $\beta = 0.832$ ;  $p = 0.000$ ) are significant traits, reinforcing the idea that dishonest, intimidating, and hostile leadership behaviors negatively affect employees' mental health. Interestingly, seduction ( $\beta = 0.752$ ;  $p = 0.037$ ) is not as significant when compared to the other traits mentioned above. However, it is significantly related to stress, suggesting that inappropriate behaviors or persuasive actions can still increase stress.

Some leadership traits do not show significant effects on stress. Control over others ( $\beta = -0.085$ ;  $p = 0.562$ ) and question authority ( $\beta = 0.027$ ;  $p = 0.902$ ) are not significant, indicating that leaders controlling employees and challenging authority do not necessarily increase stress levels.

Apart from leadership behaviors, certain workplace and employee characteristics were also examined. Overall rating ( $\beta = -0.211$ ;  $p = 0.000$ ) was significantly and negatively associated with stress, meaning employees who rate their workplace environment more positively express lower stress levels. Word count ( $\beta = 0.007$ ;  $p = 0.000$ ) is significantly and positively associated with stress,

indicating that employees who write longer reviews potentially indicate more detailed and negative experiences.

Notes: (f) - follower; (l) - leader; <sup>a</sup> female = 1, male = 2; n = 3 625; \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05

Stress (f)	Coefficient	Std. Err.	z	[95% conf. Interval]	
Control others (l)	-0.085	0.146	-0.58	-.3720859	.2016779
Aggression (l)	1.355***	0.241	5.63	.8837693	1.826645
Manipulation (l)	0.608***	0.158	3.85	.2987946	.9176336
Question Authority (l)	0.027	0.184	0.15	-.3341397	.3880898
Bullying (l)	0.832***	0.201	4.13	.4370323	1.226461
Seduction (l)	0.752*	0.360	2.09	.0463845	1.459326
Gender <sup>a</sup> (f)	0.071	0.072	0.99	-.0693217	.2117362
Overall Rating (f)	-0.211***	0.039	-5.36	-.2886861	-.134068
Career Opportunities (f)	0.051	0.037	0.98	-.0287803	.0864269
Compensation & Benefits (f)	0.028	0.029	1.39	-.0212437	.124275
Word count (f)	0.007**	0.0006	10.87	.0055091	.007933
Review Submission Date (f)	0.00008	0.00004	1.89	-3.10e-06	.0001707
Constant	-1.984	0.953	-2.08	-3.850871	-.1167311
employer ID					
	var(_cons)	0.016	0.019	0.002	0.152

**Table 6:** Relationships between DTT and Stress Levels

### 3. Psychological Safety as a Moderator

This study examined psychological safety as a moderator of the relationship between stress and DTT. **Table 7** aimed to understand if psychological safety softens the effects of the presented traits on employees' mental health. The analysis was structured around six models (Model 1a to Model 1f), each isolating a specific behavior to understand the different results. To accurately assess the effects, this analysis only includes cases where the behaviors were mentioned (greater than 0). So, the sample size ( $n$ ) varies across each model.

In contrast to what was predicted (see Chapter 1, 4.1. Research Model, *H2* and *H2a*), the interactions between psychological safety and the behaviors chosen to pursue the study were not significant across the models. This potentially indicates that psychological safety, by itself, does not smooth the relationships between DTT and stress. However, the interaction with bullying ( $\beta = -13.56$ ,  $p = 0.326$ ) suggests a potential moderating effect and could reduce stress related to bullying leaders, but it is not statistically significant. Also, the interaction with control over others ( $\beta = -6.889$ ;  $p = 0.466$ ) and aggression ( $\beta = -2.880$ ;  $p = 0.809$ ) may indicate that psychological safety may reduce stress associated with leaders who tend to control others and be aggressive, but the results are not significant.

Overall, these interactions suggest that psychological safety may reduce stress caused by certain DTT, in particular bullying, aggression, and controlling actions.

Notes: (f) - follower; (l) - leader; <sup>a</sup> female = 1, male = 2; \*\*\* p < 0.001, \*\* p < 0.01; \* p < 0.05; <sup>1</sup> n = 2 096; <sup>2</sup> n = 831; <sup>3</sup> n = 1 838; <sup>4</sup> n = 1 527; <sup>5</sup> n = 1 013; <sup>6</sup> n = 242; the values between parentheses correspond to unstandardized SE.

	Model 1a <sup>1</sup>	Model 1b <sup>2</sup>	Model 1c <sup>3</sup>	Model 1d <sup>4</sup>	Model 1e <sup>5</sup>	Model 1f <sup>6</sup>
Stress (f)						
Psychological Safety (f)	2.464 (3.731)	-1.999 (5.764)	1.416 (3.894)	1.098 (4.697)	1.915 (5.199)	-9.005 (12.511)
<i>Predictors</i>						
Control Others (l)	-0.024 (0.270)	-0.442 (0.338)	-0.024 (0.270)	-0.393 (0.240)	0.440 (0.319)	-0.547 (0.755)
Aggression (l)	1.071*** (0.262)	0.282 (0.480)	1.252*** (0.335)	1.593*** (0.398)	0.627 (0.345)	2.430* (1.136)
Manipulation (b)	0.904*** (0.2067)	0.721* (0.355)	0.330 (0.257)	0.729*** (0.267)	0.712* (0.284)	1.247 (0.790)
Question authority (l)	-0.833 (0.274)	-0.112 (0.468)	0.021 (0.300)	0.072 (0.313)	-0.004 (0.501)	-0.276 (1.048)
Bullying (l)	1.023*** (0.265)	0.549 (0.350)	1.023*** (0.265)	0.866*** (0.332)	1.305*** (0.455)	2.131** (0.825)
Seduction (l)	1.142* (0.526)	0.257 (0.839)	1.142* (0.526)	0.0009 (0.482)	1.752*** (0.535)	0.013 (0.693)
<i>Controls</i>						
Gender <sup>a</sup> (f)	0.123 (0.091)	0.154 (0.152)	0.098 (0.104)	-0.059 (0.111)	-0.007 (0.133)	-0.062 (0.328)
Overall rating (f)	-0.191*** (0.055)	-0.209 (0.111)	-0.227*** (0.619)	-0.341*** (0.072)	-0.260*** (0.080)	-0.207 (0.177)
Career Opportunities (f)	0.019 (0.048)	0.040 (0.899)	0.072 (0.053)	0.086 (0.058)	0.092 (0.0661)	0.138 (0.167)
Compensation & Benefits (f)	0.031 (0.036)	0.003 (0.066)	0.038 (0.0463)	0.065 (0.049)	-0.0008 (0.056)	-0.073 (0.128)
Word count (f)	0.006*** (0.0009)	0.006*** (0.001)	0.007*** (0.0009)	0.005*** (0.0009)	0.005*** (0.001)	0.004 (0.003)
Review Submission Date (f)	0.00009 (0.00006)	0.0002 (0.00009)	0.00009 (0.00007)	0.0001 (0.00007)	0.00004 (0.00009)	0.0004* (0.0002)
<i>Interactions</i>						
Psych Safety x Control Others	-6.899 (9.456)					
Psych Safety x Aggression		-2.880 (11.928)				
Psych Safety x Manipulate			1.837 (8.541)			
Psych Safety x Question authority				-1.276 (12.433)		
Psych Safety x Bully					-13.56 (13.82)	
Psych Safety x Seduce						6.483 (42.687)

**Table 7:** Relationships between DTT and Psychological Safety

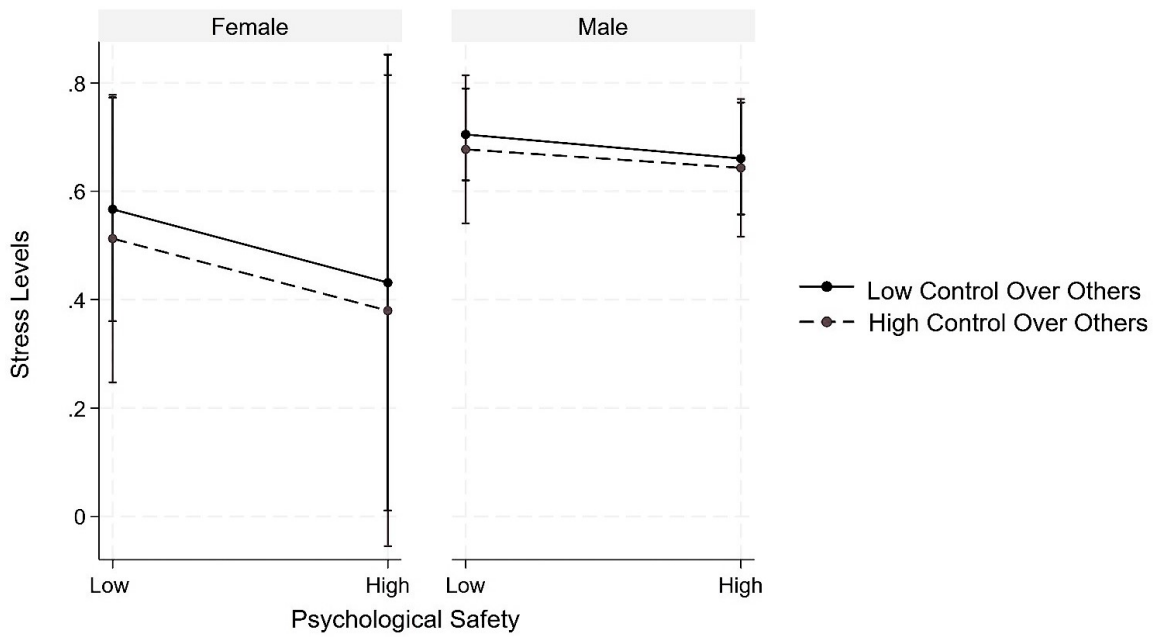
## 4. Gender, Dark Triad, and Stress Levels

3 625 ratings were evaluated. 1 799 of these were women, representing 49.63% of the total, and 1 826, representing 50.37%, were men. Previously, gender did not show any significance when evaluating it with stress levels (see Chapter 3, 1. Pairwise Correlation). However, by being an interesting point to study, gender was presented in this dissertation's hypotheses (see Chapter 1, 4.1 Research Model, *H3*). In **Table 8**, there is an analysis between the key behaviors examined, psychological safety, and employee stress using multiple models (2a to 2f), each focusing on one specific leadership behavior. The main findings reveal the significance between gender and psychological safety in Model 2f ( $\beta = -61.206, p = 0.036$ ), suggesting that psychological safety buffers stress levels and varies by gender in this particular case. The three-way interaction between gender, psychological safety, and controlling behavior (Model 2a) is significant ( $\beta = 53.335, p = 0.025$ ), indicating that the relationship between leadership control and stress depends on gender and a perceived sense of psychological safety. There is another strong three-way interaction in Model 2f, analyzing gender, psychological safety, and seduction ( $\beta = 298.352, p = 0.014$ ), demonstrating that seductive and inappropriate behaviors affect stress levels differently for both men and women. As a result, two figures were provided, **Figure 3** and **Figure 4**, which analyze the two most significant three-way interactions, showing the effects of each behavior on stress levels and whether psychological safety acted as a moderator by gender.

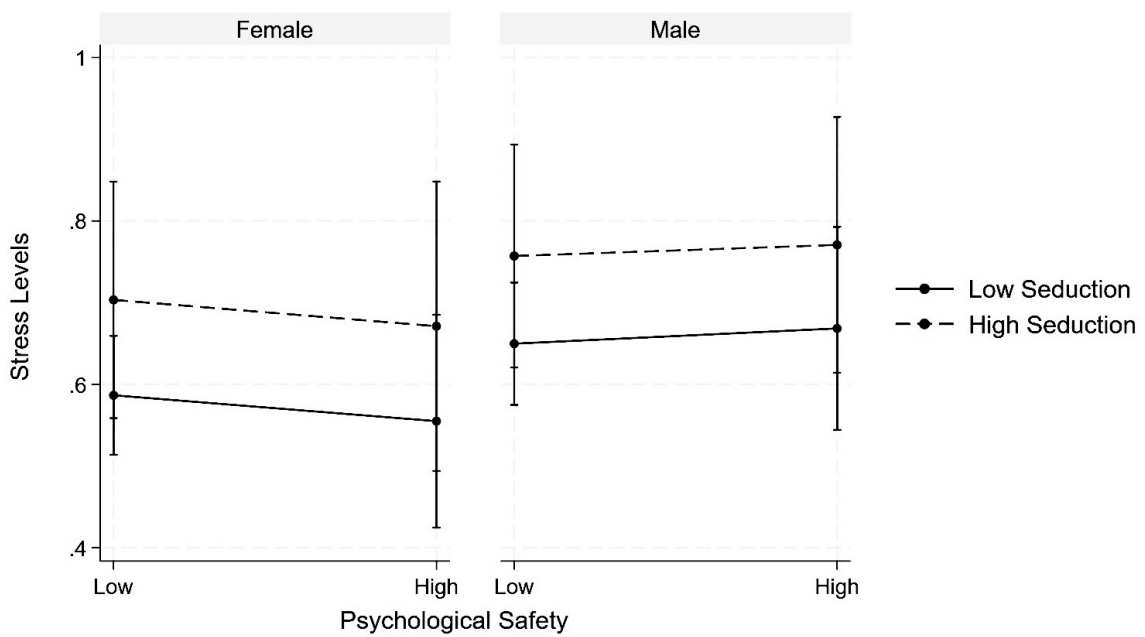
Notes: (f) - follower; (l) - leader; <sup>a</sup> female = 1, male = 2; \*\*\* p < 0.001, \*\* p < 0.01, \* p < 0.05; <sup>1</sup> n = 2,096; <sup>2</sup> n = 831; <sup>3</sup> n = 1,838; <sup>4</sup> n = 1,527; <sup>5</sup> n=1,013; <sup>6</sup> n = 242; the values between paratheses correspond to SE.

Stress percentage (f)	Model 2a <sup>1</sup>	Model 2b <sup>2</sup>	Model 2c <sup>3</sup>	Model 2d <sup>4</sup>	Model 2e <sup>5</sup>	Model 2f <sup>6</sup>
Gender <sup>a</sup> (f)	-0.143 (0.203)	-0.589 (0.342)	-0.0132 (0.219)	-0.105 (0.253)	-0.276 (0.314)	-0.450 (0.682)
Psychological Safety (f)	12.308* (6.222)	-11.957 (7.889)	1.791 (5.516)	1.892 (5.578)	-0.531 (9.013)	-10.106 (13.935)
<i>Predictors</i>						
Control Others (l)	-0.339 (0.3700)	-0.491 (0.344)	0.059 (0.249)	-0.394 (0.238)	0.443 (0.320)	-0.622 (0.754)
Aggression (l)	1.048*** (0.260)	-0.476 (0.671)	1.260*** (0.336)	1.590*** (0.401)	0.644 (0.343)	2.370* (1.211)
Manipulation (b)	0.872*** (0.205)	0.793* (0.356)	0.198 (0.385)	0.731** (0.266)	0.676* (0.273)	1.167 (0.796)
Question authority (l)	-0.073(0.275)	-0.154 (0.481)	0.021 (0.304)	-0.037 (0.474)	0.022 (0.504)	-0.354 (1.078)
Bullying (l)	0.996*** (0.268)	0.574 (0.352)	0.933*** (0.2659)	0.866** (0.331)	1.029 (0.588)	2.113* (0.864)
Seduction (l)	1.092* (0.526)	0.197 (0.799)	1.292* (0.530)	0.002 (0.482)	1.788*** (0.528)	-0.398 (0.837)
<i>Controls</i>						
Overall rating (f)	-0.197*** (0.055)	-0.213 (0.114)	-0.226*** (0.062)	-0.342*** (0.072)	-0.261*** (0.080)	-0.216 (0.180)
Career Opportunities (f)	0.019 (0.049)	0.049 (0.091)	0.072 (0.053)	0.087 (0.058)	0.092 (0.067)	0.151 (0.172)
Compensation & Benefits (f)	0.032 (0.037)	-0.007 (0.069)	0.037 (0.047)	0.065 (0.049)	0.0004 (0.056)	-0.069 (0.126)
Word count (f)	0.006*** (0.0009)	0.007*** (0.001)	0.007*** (0.0009)	0.005*** (0.0009)	0.006*** (0.001)	0.004 (0.003)
Review Submission Date (f)	0.00009 (0.00006)	0.0002 (0.00009)	0.00009 (0.00007)		0.00004 (0.00009)	0.0004* (0.0002)
<i>Interactions</i>						
Gender x Psych Safety	-15.751 (9.424)	21.297 (7.899)	-0.130 (8.181)	-0.590 (7.847)	6.432 (11.217)	-61.206* (29.178)
Gender x Control Others	0.621 (0.504)					
Psych Safety x Control Others	-37.771* (15.749)					
Gender x Psych Safety x Control Others	53.335* (23.758)					
Gender x Aggression		1.772 (0.919)				
Psych Safety x Aggression		6.421 (15.606)				
Gender x Psych Safety x Aggression		-12.981 (27.443)				
Gender x Manipulate			0.272 (0.489)			
Psych Safety x Manipulate			-0.876 (12.622)			
Gender x Psych Safety x Manipulate			3.377 (17.951)			
Gender x Question Authority				0.204 (0.672)		
Psych Safety x Question authority				-0.691 (13.025)		
Gender x Psych Safety x Question Authority				-5.095 (22.048)		
Gender x Bully					0.656 (0.889)	
Psych Safety x Bully					-16.360 (25.687)	
Gender x Psych Safety x Bully					0.466 (28.558)	
Gender x Seduce						1.051 (1.596)
Psych Safety x Seduce						4.572 (40.272)
Gender x Psych Safety x Seduce						298.352* (121.258)

**Table 8:** Relationships between Gender, DTT, Psychological Safety, and Stress



**Figure 3:** Effects of a Controlling Leader, by Gender



**Figure 4:** Effects of a Seducing Leader, by Gender

# Chapter 4

## Discussion

### 1. Key Findings for Hypothesis 1

The first hypothesis (*H1*) aimed to examine whether DTT influenced employees' stress in the workplace, focusing on whether employees experience high stress levels when leaders exhibit behaviors associated with these harmful traits. Among the examined characteristics, the above results supported this hypothesis, with some specific Dark Triad-related behaviors showing significant associations with employee stress levels. Behaviors such as aggression, bullying, and manipulation show positive associations with the increase of employee stress levels in this study (see Chapter 3, 2. The Dark Triad and Workplace Stress). Therefore, this confirms *H1* and suggests that when leaders engage in aggressive, manipulative, or bullying actions, employees experience higher stress levels.

Prior research has indicated that such leadership behaviors can have serious consequences in employee well-being, leading to mental health concerns. Aggression, whether physical or nonphysical, is especially concerning as it can negatively affect employees' well-being (Caillier, 2021). Behaviors such as aggression and bullying have been documented as a primary source of workplace stress, leading to mental health problems over time (Nielsen & Einarsen, 2012).

## 2. Key Findings for Hypothesis 2

The results for this particular hypothesis (*H2*) aimed to examine the impact of several leadership behaviors (controlling others, aggression, manipulation, questioning authority, bullying, and seduction) on employee stress, considering psychological safety as a potential barrier. The findings indicated that aggression, manipulation, bullying, and seduction are considered problematic and are associated with higher stress levels perceived by employees, emphasizing the previous research on the negative consequences of toxic leadership behaviors. Acts of bullying, intimidation, fear, and terrorization create a sense of fear within the team, compromising employees' psychological safety and can have detrimental effects (Geraghty, 2020). However, behaviors such as control over others and questioning authority did not show significant impacts, suggesting these behaviors do not impact perceived stress by employees as much as the earlier-mentioned.

Previous research has studied the importance of psychological safety in organizations, associating it with employee well-being and a reduction of mental health challenges (Bahadurzada, *et al.*, 2024). Psychological safety has also proved to moderate the effects of work-related tension (Selander *et al.*, 2023), often associated with exhaustion and lack of well-being. Initially, for this study, psychological safety did not show a significant interaction with stress levels (see Chapter 3, 1. Pairwise Correlation). Even when analyzing the relation with stress, the results remained weak. Contrary to what was expected, the findings suggest that psychological safety, by itself, does not influence or have a direct impact on reducing employees' perceived stress levels.

### 3. Key Findings for Hypothesis 3

The findings for this hypothesis (*H3*) examined the interactions between psychological safety, leadership behaviors, gender, and stress levels. Two behaviors showed significance in a three-way interaction, where psychological safety had a possible moderating role. However, the outcomes vary depending on gender and the specific behavior.

The study shows that psychological safety was associated with lower stress levels for female employees under low-controlling leadership. Conversely, the decrease in stress levels was less noticeable when leaders were highly controlling. For male employees, psychological safety did not have a significant effect on stress levels, which remained stable, regardless of the possible controlling leader. This may suggest that psychological safety may act more as a buffer for women, especially when they don't experience high levels of controlling leadership. The findings also reveal that psychological safety did not significantly reduce stress when leaders perform seduction behaviors. For females, psychological safety has a small effect on reducing stress when employees are under low-seducing leadership, but under a high-seducing leader, stress remains high. For males, the pattern is similar, where stress levels stay high and even increase as psychological safety rises, under a high-seducing leader. Overall, there is a gender difference, where psychological safety appears to be more beneficial for reducing stress for women than for men.

## 4. Theoretical Contributions

The present dissertation provides detrimental contributions to understanding the influence of leadership DTT behaviors, employee stress, and psychological safety. This research offers some theoretical contributions.

The findings support that some leadership behaviors associated with DTT are certainly related to the increase in employee stress levels. It aligns with the existing literature on toxic leadership but expands by assessing which behaviors most impact workplace stress and employee well-being. The study also contributes to psychological safety research by testing its moderating role in the relationships between DTT leadership and employee stress. However, the findings suggest more research is needed, as the results show that its buffer effect may depend on various workplace conditions. Additionally, this study also examined the role of gender in understanding whether there is a noticeable difference. The results suggested that there is, in fact, an influence on how employees experience stress under different psychological safety environments. Yet, this depends on the specific behavior performed by the leader.

# Chapter 5

## Implications and Future Research

### 1. Practical Implications

For practical implications, this study can create an impact on organizational leadership and Human Resource Management. Given the fact that DTT behaviors in leaders contributed to an increase in stress levels, organizations should foster ethical and supportive management styles and also be concerned about employees' mental health and well-being, as they are extremely important inside an organization. The role of psychological safety as a possible buffer highlights the importance of creating a safer and collaborative workplace environment, where employees are free to speak, seek support, and express their worries and concerns without fear of negative repercussions and outcomes. Organizations can enhance and introduce psychological safety through open communication and policies that promote respect and inclusion for employees. From a gender perspective, and by analyzing the results, stress experiences and levels differ between men and women when under a toxic leadership. Therefore, organizations should implement strategies that would consider gender differences when designing interventions.

## 2. Limitations and Future Research

Despite the outcomes provided by this study, there were several limitations and boundaries to face. First, this study relies on personal reviews/comments and self-reported data, which may introduce some bias, particularly in the assessment of stress levels and the perception of leadership behaviors by employees. They may underreport or even exaggerate their experiences due to numerous reasons. Also, the original data did not specify or correspond to the needs of this study. The information available was mainly about leaders' and employees' personal experiences/opinions, and how they feel about it in general. Even if the information was about DTT and toxic leadership behaviors, psychological safety was not induced in the primary data. Therefore, for this specific study (where there was a search for specific data), there was a need to come up with approximate keywords that would correspond to what was searched for. This use of keywords limited the study, as it was a rudimentary approach. However, the research turned out to be positive as the right words and concepts were chosen to proceed, and some of the results proved what was previously expected.

By addressing these limitations, future studies may take accountability for exploring these relationships across diverse work environments to understand if the findings are, in fact, universal. Future research could also adopt a different approach by collecting data specifically about stress, mental health conditions, and psychological safety. In addition, other factors could also be considered to deepen the study. By doing that, future studies will contribute to a more comprehensive understanding of the relationships between leadership behaviors, psychological safety, and stress, contributing to a healthier and safer workplace environment.

# Conclusion

This research explored the relationships between leaders' DTT behaviors, employee stress, and the moderating role of psychological safety, considering gender differences. While psychological safety, alone, did not necessarily buffer the effects of stress, its role remains crucial.

Prioritizing a psychologically safe environment is not just about reducing stress or fighting mental health issues in workplaces. It is about fostering an environment where employees feel secure, safe, valued, and able to prosper and succeed. Well-being, mental health, and a work-life balance are essential for a fulfilling life and should be a fundamental priority in an individual's life.

# Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of my written thesis "The Dark Triad in Leadership: Its Influence on the Workplace - Exploring the Impact on Employee Stress and the Moderating Role of Psychological Safety", ChatGPT and SciSpace were used for the following tasks: checking grammar, improve academic writing/tone, guidance on the use of Stata commands and analysis, and search for reliable articles/scientific papers with the prompts used listed at the end of the document in the Prompts List section. After using these tools/services, I reviewed and edited the content as necessary, and I take full responsibility for the content of the work presented. I also declare that I am aware of and respect the Artificial Intelligence Rules of Conduct of Católica Porto Business School.

## Prompts List

1. "How can I improve my academic tone in this section?"
2. "Give me an alternative to this word to avoid repetition."
3. "Is this sentence grammatically correct?"
4. "What Stata command should I use to check this correlation?"
5. "Dark Triad and Employee Well-Being"
6. "Employee Stress levels"
7. "The Dark Triad Traits in Managers"

# References

- Acuity International. (2024). *Mental Health at Work: Best Practices for Workplace Well-Being*. Retrieved from <https://acuityinternational.com/blog/mental-health-at-work/>
- American Psychological Association. (2018). *APA Dictionary of Psychology*. Retrieved from American Psychological Association (APA): <https://dictionary.apa.org/stress>
- American Psychological Association. (2018). *APA Dictionary of Psychology*. Retrieved from American Psychological Association (APA): <https://dictionary.apa.org/personality-trait>
- American Psychological Association. (2021). *American Psychological Association (APA)*. Retrieved from The American workforce faces compounding pressure: APA's 2021 Work and Well-being Survey results: <https://www.apa.org/pubs/reports/work-well-being>
- American Psychological Association. (2023). *American Psychological Association (APA)*. Retrieved from 2023 Work in America Survey: Workplaces as engines of psychological health and well-being: <https://www.apa.org/pubs/reports/work-in-america/2023-workplace-health-well-being>
- Anxiety & Depression Association of America. (n.d.). *Generalized Anxiety Disorder (GAD)*. Retrieved from Anxiety and Depression Association of America, ADAA: <https://adaa.org/understanding-anxiety/generalized-anxiety-disorder-gad>

- Anyamesem-Poku, F., & Parmar, R. M. (2024). Ensuring Psychological Safety In The Workplace To Enhance Performance: Our Corporate Responsibility, Counselling Perspective. *Library Progress International*, 44(3), 15091-15102.
- Bahadurzada, H., Edmondson, A., & Kerrissey, M. (2024). Psychological Safety as an Enduring Resource Amid Constraints. *International Journal of Public Health*, 69. doi:<https://doi.org/10.3389/ijph.2024.1607332>
- Bhuiyan, M. H. (2024). *The Rule of link functions on Binomial Regression Model: A Cross Sectional Study on Child Malnutrition, Bangladesh*. University of Central Florida, USA, Department of Statistics and Data Science.
- Bingül, E., & Göncü-Köse, A. (2024). Moderating Effects of Dark Triad on the Relationships of Mobbing and Abusive Supervision with Outcomes. *Journal of Work and Organizational Psychology*, 40(2), 79-90. doi:<https://doi.org/10.5093/jwop2024a7>
- Bratsis, M. E. (2019). 15 Signs You Work with a Narcissist, Machiavellian, or Psychopath. *Academy of Management*. Retrieved from <https://journals.aom.org/doi/10.5465/amp.2017.0005.summary>
- Caillier, J. G. (2021). The Impact of Workplace Aggression on Employee Satisfaction With Job Stress, Meaningfulness of Work, and Turnover Intentions. *Public Personnel Management*, 50(2), 159-182. doi:<https://doi.org/10.1177/0091026019899976>
- Cesinger, B., Gundolf, K., Hughes, M., Khedhaouria, A., & Montani, F. (2022). The bright and dark sides of the Dark Triad traits among senior managers: effects on organizational commitment. *Review of Managerial Science*, 17, 1731-1763. doi:<https://doi.org/10.1007/s11846-022-00571-3>
- Cunha, M. P., Clegg, S., Rego, A., & Simpson, A. V. (2024). Drawing on the Dark Triad to Teach Effective Leadership is Dangerous, Irresponsible and Bad

- Theory. *Academy of Management Learning & Education*, 23(4), 626-651.  
doi:<https://doi.org/10.5465/amle.2022.0326>
- D'Souza, M. F., & Lima, G. A. (2015). The Dark Side of Power: The Dark Triad in Opportunistic Decision-Making. *Advances in Scientific and Applied Accounting*, 8(2), 135-156. doi:<http://dx.doi.org/10.14392/asaa.2015080201>
- Edmondson, A. (1999). Psychological safety and learning behavior in teams. *Administrative Science Quarterly*, 44, 250-282.
- Elbers, A., Kolominski, S., & Aledo, P. S. (2023). Coping with Dark Leadership: Examination of the Impact of Psychological Capital on the Relationship between Dark Leaders and Employees' Basic Need Satisfaction in the Workplace. *Administrative Science*, 13(4).  
doi:<https://doi.org/10.3390/admsci13040096>
- Gallo, A. (2023). What is Psychological Safety? *Harvard Business Review*. Retrieved from <https://hbr.org/2023/02/what-is-psychological-safety>
- Geraghty, T. (2020). *Seven Examples of Damaging Psychological Safety in The Workplace*. Retrieved from Psych Safety .
- Glenn, A. L., & Raine, A. (2014). *Psychopathy: An Introduction to Biological Findings and Their Implications*. NYU Press.
- Gruda, D., & Hanges, P. J. (2023). Why We Follow Narcissistic Leaders. *Harvard Business Review*. Retrieved from <https://hbr.org/2023/01/why-we-follow-narcissistic-leaders>
- Gruda, D., Karanatsiou, D., Hanges, P., Golbeck, J., & Vakali, A. (2022). Don't Go Chasing Narcissists: A Relational-Based and Multiverse Perspective on Leader Narcissism and Follower Engagement Using a Machine Learning

- Approach. *Personality and Social Psychology Bulletin*, 49(7), 1130-1147.  
doi:<https://doi.org/10.1177/01461672221094976>
- Hamstra , M. R., Schreurs , B., Jawahar , I. M., Laurijssen , L. M., & Hünermund, P. (2021). Manager narcissism and employee silence: A socio-analytic theory perspective. *Journal of Occupational & Organizational Psychology*, 94(1), 29-54. doi:<https://doi.org/10.1111/joop.12337>
- Harris, R. (2022). Chapter 10: Multilevel models. In S. J. Rey, & R. Franklin (Eds.), *Handbook of Spatial Analysis in the Social Sciences* (pp. 173-186). doi:<https://doi.org/10.4337/9781789903942.00018>
- Jonason , P. K., Foster , J. D., Egorova , M. S., Parshikova , O., Csathó , Á., Oshio, A., & Gouveia , V. V. (2017). The Dark Triad Traits from a Life History Perspective in Six Countries. *Front. Psychol.*, 8. doi:<https://doi.org/10.3389/fpsyg.2017.01476>
- Jonason , P. K., Strosser, G. L., Kroll, C. H., Duineveld , J. J., & Baruffi, S. A. (2015). Valuing myself over others: The Dark Triad traits and moral and social values. *Personality and Individual Differences*, 81, 102-106. doi:<https://doi.org/10.1016/j.paid.2014.10.045>
- Kim, K. Y., Messersmith , J. G., Pieper, J. R., Baik, K., & Fu, S. (. (2023). High performance work systems and employee mental health: The roles of psychological empowerment, work role overload, and organizational identification. *Human Resource Management*, 62(6), 791-810. doi:<https://doi.org/10.1002/hrm.22160>
- Kwak, W. J., & Shim , J. H. (2017). Effects of Machiavellian Ethical Leadership and Employee Power Distance on Employee Voice. *Social Behavior and Personality*, 45(9), 1485-1498. doi:<https://doi.org/10.2224/sbp.5896>

- Lainidi , O., Chalili, V., Maliousis , I., Spiliou , M., Tzioti, E., Koutsimani , P., & Montgomery, A. (2023). Perspective Chapter: The Dark Triad in the Organization – A Review of the Evidence and Future Recommendations. doi:10.5772/intechopen.1001365
- LaMontagne , A. D., Martin, A., Page, K. M., & Nicola, R. J. (2014). Workplace mental health: developing an integrated intervention approach. *BMC Psychiatry*, 131(14). doi:https://doi.org/10.1186/1471-244X-14-131
- LaMontagne, A. D., Martin, A., Page, K. M., Reavley, N. J., Noblet, A. J., Milner, A. J., . . . Smith, P. M. (2019). Developing an integrated approach to workplace mental health. (H. L. Hudson, J. A. Nigam, S. L. Sauter, L. C. Chosewood, A. L. Schill, & J. Howard, Eds.) *American Psychological Association* , 211-227. doi:https://doi.org/10.1037/0000149-013
- Laurijssen , L. M., Wisse , B., Sanders , S., & Sleebos, E. (2024). How to Neutralize Primary Psychopathic Leaders’ Damaging Impact:. *Journal of Business Ethics*, 189, 365-383. doi:https://doi.org/10.1007/s10551-022-05303-x
- LeBreton, J. M., Shiverdecker, L. K., & Grimaldi, E. M. (2018). The Dark Triad and Workplace Behavior. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 387-414. doi:10.1146/annurev-orgpsych-032117-104451
- Liu, X., Mao, J.-Y., Chiang , J. T.-J., Li, G., & Zhang, S. (2023). When and why does voice sustain or stop? The roles of leader behaviours, power differential perception and psychological safety. *Applied Psychology*, 72(3), 1209-1247. doi:https://doi.org/10.1111/apps.12432
- LIWC DICTIONARY REPOSITORY. (n.d.). Retrieved from LIWC: https://www.liwc.app/dictionaries

- Maftai, A., Holman , A.-C., & Elenescu, A.-G. (2022). The Dark Web of Machiavellianism and Psychopathy: Moral Disengagement in IT Organizations. *Europe's Journal of Psychology*, 18(2), 181-192. doi:<https://doi.org/10.5964/ejop.4011>
- Mental Health*. (2019). Retrieved from World Health Organization (WHO): [https://www.who.int/health-topics/mental-health#tab=tab\\_2](https://www.who.int/health-topics/mental-health#tab=tab_2)
- Nebbs, A., Martin, A., Neil, A., Dawkins , S., & Roydhouse, J. (2023). An Integrated Approach to Workplace Mental Health: A Scoping Review of Instruments That Can Assist Organizations with Implementation. *International Journal of Environmental Research and Public Health*, 20(2), 1192. doi:<https://doi.org/10.3390/ijerph20021192>
- Nielsen, M. B., & Einarsen , S. (2012). Outcomes of exposure to workplace bullying: A meta-analytic review. *Work & Stress*, 26(4), 309-332. doi:<https://doi.org/10.1080/02678373.2012.734709>
- Ordem dos Psicólogos Portugueses. (2018). *Saúde Mental e Bem-Estar no Local de Trabalho - Contributo da OPP*.
- Paulhus, D. L., & Williams , K. M. (2002). The Dark Triad of Personality. *Journal of Research in Personality*, 36(6), 556-563. doi:[https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Pinhatti, E., Nascimento , A., Machado, R., Pimenta, R., Jaques, A., & Haddad, M. (2024). Recommendations for guidelines for promoting mental health in the workplace: an umbrella review. *Revista Brasileira de Enfermagem* , 77(6). doi:<https://doi.org/10.1590/0034-7167-2024-0086pt>
- Psychology Today. (2020). *Mental Health and Productivity*. Retrieved from <https://www.psychologytoday.com/us/basics/productivity/mental-health-and-productivity>

- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3, 71-92. doi:<https://doi.org/10.1023/A:1015630930326>
- Selander, K., Korhakangas, E., Toivanen, M., Yli-Kaitala, K., Kangas, H., Nevanperä, N., & Laitinen, J. (2023). Engaging Leadership and Psychological Safety as Moderators of the Relationship between Strain and Work Recovery: A Cross-Sectional Study of HSS Employees. *Healthcare*, 11(7), 1045. doi:<https://doi.org/10.3390/healthcare11071045>
- Selvarajan, P., & Senarathna, W. N. (2023). A Phenomenological Review of Machiavellianism in Organizations. *Journal of Business and Technology*, 7(1), 25-36. doi:<https://doi.org/10.4038/jbt.v7i1.106>
- Soral, P., Pati, S. P., & Kakani, R. K. (2022). Knowledge hiding as a coping response to the supervisors' dark triad of personality: A protection motivation theory perspective. *Journal of Business Research*, 142, 1077-1091. doi:<https://doi.org/10.1016/j.jbusres.2021.12.075>
- Spencer, V. G., Garcia-Simpson, C., & Newland, S. (2007). Narcissism: The Good, the Bad, and the Ugly .
- StataCorp. (2013). *STATA MULTILEVEL MIXED-EFFECTS REFERENCE MANUAL RELEASE 13*. StataCorp LP, College Station, TX.
- The difference between a state and a trait*. (2024). Retrieved from The Oxford Review Encyclopaedia of Terms : <https://oxford-review.com/oxford-review-encyclopaedia-terms/the-difference-between-an-state-and-a-trait/>
- The History of Psychological Safety*. (2025). Retrieved from LeaderFactor: <https://www.leaderfactor.com/post/the-history-of-psychological-safety>

- The Occupational Safety and Health Administration. (n.d.). *Workplace Stress*. Retrieved from Occupational Safety and Health Administration: <https://www.osha.gov/workplace-stress>
- Thompson , D. F., Ramos , C. L., & Willett, J. K. (2014). Psychopathy: clinical features, developmental basis and therapeutic challenges. *Journal of Clinical Pharmacy and Therapeutics*. doi:<https://doi.org/10.1111/jcpt.12182>
- Vaknin, S. (2010). *Narcissistic and Psychopathic Leaders*.
- Volmer , J., Koch , I. K., & Göritz, A. S. (2016). The bright and dark sides of leaders' dark triad traits: Effects on subordinates' career success and well-being. *Personality and Individual Differences*, 101, 413-418. doi:<https://doi.org/10.1016/j.paid.2016.06.046>.
- Wang, W., Hernandez, I., Newman, D. A., He, J., & Bian, J. (2016). Twitter Analysis: Studying US Weekly Trends in Work Stress and Emotion. *Applied Psychology: An International Review*, 65(2), 355-378. doi:[doi:10.1111/apps.12065](https://doi.org/10.1111/apps.12065)
- World Health Organization . (2010). *Healthy workplaces: a model for action*.
- World Health Organization . (2019). *Burn-out an "occupational phenomenon": International Classification of Diseases*. Retrieved from World Health Organization (WHO): <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>
- World Health Organization. (2023). *Anxiety disorders*. Retrieved from World Health Organization (WHO): <https://www.who.int/news-room/fact-sheets/detail/anxiety-disorders>
- World Health Organization. (2024). *Promoting healthy, safe and resilient workplaces for all*. Retrieved from World Health Organization (WHO):

<https://www.who.int/activities/promoting-healthy-safe-and-resilient-workplaces-for-all>