

PERCEIVED STRESS AND BURNOUT IN RESEARCH ASSISTANTS:
THE ROLE OF HUMOR



İREM TATAR

YEDİTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
İSTANBUL, 2023

PERCEIVED STRESS AND BURNOUT IN RESEARCH ASSISTANTS:
THE ROLE OF HUMOR

BY

İREM TATAR

SUPERVISOR

DR. MARI İTO ALPTÜNER

SUBMITTED TO GRADUATE SCHOOL OF SOCIAL SCIENCES
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
IN
CLINICAL PSYCHOLOGY

YEDİTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
İSTANBUL, 2023

PLAGIARISM STATEMENT

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Date:

Name and surname: İrem Tatar

Signature:

ABSTRACT

Stress and burnout of research assistants at universities are significant concerns, as their performance and well-being can be affected. While previous research has explored stress and burnout in various professions, this study specifically focuses on research assistants, a group that has received limited attention in the literature. The present thesis aimed to investigate the stress and burnout experienced by research assistants and explore the role of coping humor and humor styles. Research assistants ($N=406$) responded to the Perceived Stress Scale, the Maslach Burnout Inventory, the Coping Humor Scale, and the Humor Styles Questionnaire via an online survey platform. As a result, a positive correlation between the perceived stress and burnout of the research assistants was confirmed. Furthermore, a negative relationship was observed between research assistants' sense of humor and burnout. However, coping humor was not a significant moderator in the relationship between perceived stress and burnout. Rather, perceived stress partially mediated the negative relationship between coping humor and burnout. The path analysis of Structural Equation Modeling revealed that burnout could be predicted by their sense of humor but not directly. The effect of coping humor on burnout was mediated by two adaptive humor styles and perceived stress. Affiliative humor directly impacted burnout in a negative way while self-enhancing humor negatively affects burnout levels via perceived stress. The finding suggests that research assistants who tend to use positive humor in coping with difficulties would perceive less stress and consequently less burnout. The theoretical and practical implications of these findings are discussed.

Keywords: perceived stress, burnout, coping humor, humor styles, research assistants

ÖZET

Üniversitelerdeki araştırma görevlilerinin stresi ve tükenmişliği, onların performans ve iyi oluşlarını etkilenebileceğinden önemli endişe sorunlardır. Daha önceki araştırmalar, çeşitli mesleklerde stres ve tükenmişliği incelemiş olsa da bu çalışma özellikle literatürde sınırlı ilgi gören bir grup olan araştırma görevlilerine odaklanmaktadır. Bu tez, araştırma görevlilerinin deneyimlediği stres ve tükenmişliği araştırmayı ve mizahla başa çıkma ile mizah tarzlarının rolünü keşfetmeyi amaçlamaktadır. Araştırma görevlileri (N=406), Algılanan Stres Ölçeği, Maslach Tükenmişlik Envanteri, Mizah Yoluyla Başa Çıkma Mizah Ölçeği ve Mizah Tarzları Ölçeğini çevrimiçi bir anket platformu aracılığıyla yanıtlamıştır. Sonuç olarak, araştırma görevlilerinin algılanan stresi ile tükenmişliği arasındaki pozitif ilişki doğrulanmıştır. Ayrıca araştırma görevlilerinin mizah anlayışı ile tükenmişliği arasında negatif yönde bir ilişki gözlenmiştir. Ancak mizahla başa çıkma, algılanan stres ve tükenmişlik arasındaki ilişkide anlamlı bir düzenleyici (moderatör) değildi. Onun yerine, algılanan stres, mizahla başa çıkma ve tükenmişlik arasındaki negatif ilişkiye kısmen aracılık (mediatör) etmiştir. Yapısal Eşitlik Modellemenin yol analizi, tükenmişliğin mizah anlayışları tarafından tahmin edilebileceğini, ancak doğrudan tahmin edilemeyeceğini ortaya koymuştur. Mizahla başa çıkmanın tükenmişlik üzerindeki etkisine iki adaptif mizah stili ve algılanan stres aracılık etmiştir. Katılımcı mizah tükenmişliği doğrudan negatif yönde etkilerken, kendini geliştirici mizah algılanan stres aracılığıyla tükenmişlik düzeylerini negatif yönde etkilemektedir. Bulgular, zorluklarla başa çıkmada pozitif mizahı kullanma eğiliminde olan araştırma görevlilerinin daha az stres ve dolayısıyla daha az tükenmişlik algılayacaklarını göstermektedir. Bu bulguların teorik ve pratik sonuçları tartışılmaktadır.

Anahtar kelimeler: algılanan stres, tükenmişlik, mizahla başa çıkma, mizah tarzları, araştırma görevlileri

DEDICATION

To Orçun and Yağmur



ACKNOWLEDGEMENTS

I would like to express my heartfelt appreciation to my supervisor, Dr. Mari Ito Alptürer, for her exceptional creativity, open-mindedness, and hardworking nature. Through moments of shared laughter, our meetings became much more than just academic discussions. Working under her mentorship was both enjoyable and intellectually stimulating. I am deeply grateful for the enriching experiences she has brought to this thesis.

I would also like to thank the research assistants who generously devoted their time and efforts to participate in this study despite their challenging working conditions and numerous responsibilities. Inspired by my sister, a research assistant herself, this study aims to raise awareness of your challenges.

Finally, my special acknowledgment goes to my loving siblings, Orçun and Yağmur. You are not only my siblings but also my best friends, confidants, and pillars of strength. From the laughter we have shared to the tears we have wiped away; our bond remains unbreakable. Your wit, quick comebacks, and ability to find humor in the everyday have not only brought joy to our lives but have also served as a reminder that laughter truly is the best medicine. As we continue to journey through life together, may our bond grow stronger and our laughter louder. Thank you for being the irreplaceable stars in my constellation.

In the face of obstacles, *aut viam inveniam aut faciam*.

TABLE OF CONTENTS

ABSTRACT	ii
ÖZET	iii
DEDICATION.....	iv
ACKNOWLEDGEMENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
1. INTRODUCTION	1
2. LITERATURE REVIEW	4
2.1 Stress and Coping.....	4
2.1.1 Defining Stress	4
2.1.2 Classic Theories of Stress	5
2.1.3 Cognitive Appraisal	7
2.1.4 Coping Strategies.....	7
2.2 Burnout: A Psychological Consequence of Chronic Stress at Work	8
2.3 Humor.....	11
2.3.1 Classic Theories of Humor.....	12
2.3.2 Contemporary Theories of Humor.....	13
2.3.3 Humor as a Coping Strategy	15
2.3.4 Humor Styles	16
2.4 The Potential Role of Humor as a Moderator of Stress and Burnout	17
2.5 The Purpose of the Study.....	21
3. METHOD.....	23
3.1 Participants.....	23
3.2 Instruments.....	23
3.2.1 Perceived Stress Scale (PSS).....	24
3.2.2 Maslach Burnout Inventory (MBI)	25
3.2.3 Coping Humor Scale (CHS).....	26
3.2.4 Humor Styles Questionnaire (HSQ)	27
3.2.5 Reliability Analysis of the Scales Used in the Study.....	28
3.3 Procedure	28
4. RESULTS	30
4.1 Descriptive Statistics of the Dataset.....	30

4.2 Correlational Analyses	31
4.3 Testing the Moderating Role of Humor	32
4.4 Testing the Mediating Role of Perceived Stress	35
4.5 Constructing an Overall Model.....	39
5. DISCUSSION.....	42
5.1 Implications of the Findings	42
5.2 The Proposed Model	43
5.3 Significance of the Study and Suggestions for Future Research	45
REFERENCES.....	51
Appendix A: The Distribution of Participants by Universities and Faculties	62
Appendix B: Informed Consent Form	64
Appendix C: Sociodemographic Form	65
Appendix D: Perceived Stress Scale	66
Appendix E: Maslach Burnout Inventory	67
Appendix F: Coping Humor Scale	68
Appendix G: Humor Styles Questionnaire	69
Appendix H: Debriefing Form	71
Appendix I: Research Ethics Committee Approval.....	72

LIST OF TABLES

Table 1. Reliability Statistics.....	28
Table 2. Summary Statistics Table for Scores on Perceived Stress Scale, Maslach Burnout Inventory, Coping Humor Scale, and Humor Styles Questionnaire	30
Table 3. Intercorrelations (Pearson's r) for Scores on Perceived Stress Scale, Maslach Burnout Inventory, Coping Humor Scale, and Humor Styles Questionnaire	31
Table 4. Summary Table for Two-Way Analyses of Variance of the Effects of Perceived Stress and Humor on Burnout	33
Table 5. Means and Standard Deviations for Burnout (MBI) Scores for Perceived Stress x Humor Effects	34
Table 6. Fit Statistics for Alternative Models.....	40

LIST OF FIGURES

Figure 1. Hypothetical Model between the Sense of Humor, Perceived Stress, and Burnout	22
Figure 2. Estimated Marginal Means for Burnout Scores as a Function of Perceived Stress and Humor	34
Figure 3. Mediating Role of Perceived Stress on the Relationship between Coping Humor and Burnout	36
Figure 4. Mediating Role of Perceived Stress on the Relationship between Self-Enhancing Humor and Burnout.....	37
Figure 5. Mediating Role of Perceived Stress on the Relationship between Affiliative Humor and Burnout	38
Figure 6. Mediating Role of Perceived Stress on the Relationship between Aggressive Humor and Burnout	38
Figure 7. Mediating Role of Perceived Stress on the Relationship between Self-Defeating Humor and Burnout	39
Figure 8. Alternative 5-variable Models Tested	40
Figure 9. Standardized Coefficients for Model 2	41
Figure 10. The Relationship between Adaptive Humor Styles, Coping Humor, Perceived Stress, and Burnout.....	45

1. INTRODUCTION

Despite the fact that we now have remedies for many physical and psychological difficulties, stress remains an issue in today's society. The problem of stress has been researched innumerable in the psychology literature. Some of the studies on stress focused on events that cause stress (Sliter et al., 2014), while others focused on the physiological and psychological reactions to these events (Newman & Stone, 1996). In the literature, a stimulus event that causes stress is referred to as a "stressor," and the physiological and psychological reactions of people to these events are referred to as "stress responses" (Crosswell & Lockwood, 2020, p.2).

Stress can be caused by a variety of stressors that press a demand for an adaptive response from the person. As major life events and traumatic incidents can be sources of acute stress, daily hassles and chronic stress related to work and life can also have serious consequences. Occupational stress is a concern to many people in the world. The work-related stress often affects individuals not only when at work but the whole aspects of their life. In studies of stress, participants from various professions have been studied. There is even a study that recruited participants from 26 different professions (Johnson et al., 2005). University lecturers are one of the many professions that have been the focus of stress research (e.g., Ofoegbu & Nwadiani, 2006; Ogbonna & Harris, 2004; Salami, 2011). However, there is a significant gap in the existing literature that warrants attention. Specifically, there has been a lack of research focusing on the stress experienced by research assistants within university settings.

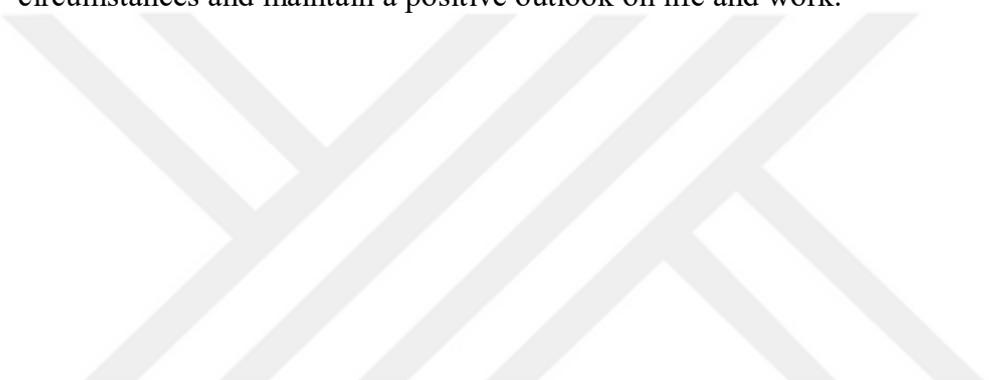
This particular group, although often overlooked, may be subjected to a variety of stressors that can significantly impact their well-being. One primary stressor faced by research assistants is the general work overload they carry. With numerous responsibilities and tasks to handle, including academic work and administrative duties, research assistants often find themselves struggling with overwhelming workloads. Furthermore, they may be confronted with excessive student numbers, which can further worsen their stress levels as they strive to provide adequate support and guidance to a large number of students. In addition to work overload, research assistants may also face challenges when dealing with problematic students. This aspect of their role can be emotionally demanding and mentally draining. Moreover, the physical conditions within research environments may not always be pleasant, potentially adding to the

overall stress experienced by research assistants. Financial concerns are another important stressor for research assistants. Many of them receive low salaries that may not adequately reflect the responsibilities they undertake or the qualifications they possess. This financial strain can contribute to heightened stress levels, especially when attempting to meet their personal and professional needs. Furthermore, the power dynamics inherent within academia can be a significant source of stress for research assistants. They may find themselves navigating complex relationships with students, lecturers, professors, and directors, which can be challenging to manage effectively. Balancing the expectations and demands of these various parties can place considerable pressure on research assistants. It is important to note that research assistants are not only responsible for supporting the academic needs of others but also for pursuing their own graduate studies and scholarly research work. This dual role places immense demands on their time, energy, and cognitive resources. Consequently, research assistants may struggle to meet their own emotional needs while striving to fulfill the daily demands placed upon them.

Thus, the thesis seeks to highlight the importance of paying attention to the well-being of research assistants. The high demands placed on research assistants may eventually cause an inability to cope with the day-to-day stress, a gradual decline in overall job performance, and the experience of so-called “burnout” as a consequence. Maslach (2003) defines burnout as a psychological syndrome that emerges as “a prolonged reaction to chronic emotional or interpersonal stressors on the job” (p.189). This syndrome is prevalent among academic staff, potentially impeding their ability to effectively meet the demands of their profession (Amer et al., 2022). Burnout is, in this sense, not only harmful for the employees themselves but also for the organizations. Likewise, research assistants’ stress and burnout can have a major impact on the university administration. Tümkaya’s (2007) research on burnout of academic staff at universities in Turkey reported that research assistants’ burnout scores were the highest compared to those of professors and lecturers. Universities should, therefore, cultivate an environment that promotes the well-being of research assistants while also ensuring the overall success and sustainability of their academic programs. Addressing the unique challenges faced by research assistants and implementing effective measures to mitigate their stress and burnout is an urgent need. Recognizing the importance of

addressing this issue, the current thesis puts a spotlight on the research assistants' stress and burnout.

This thesis examines the level of stress and burnout of research assistants and aims to contribute to the existing literature on stress and burnout in the academic setting. It specifically focuses on the personal tendencies to use a certain coping strategy. As most stressors faced by research assistants are ones that are not directly controllable by them, it was predicted that they are more likely to resort to emotion-focused coping. In this respect, the sense of humor may be one of the protective personality variables that moderate their experience of stress and burnout. Individuals with a good sense of humor may experience less burnout due to their ability to find amusement even in challenging circumstances and maintain a positive outlook on life and work.



2. LITERATURE REVIEW

2.1 Stress and Coping

2.1.1 Defining Stress

The origins of the concept of stress are the Latin word “*estritia*” and the old French word “*estrece*.” In the 17th century, the word was used to refer to disaster, adversity, trouble, grief, and affliction. Later, in the 18th and 19th centuries, the word started to refer to pressure as in power or difficulty pressed on objects or persons, their organs, and mental structures (Baltaş & Baltaş, 2002). The academic definitions of stress went through some changes throughout the 20th century. The various definitions of stress appeared in terms of its changing emphasis on physiological and psychological factors and their explanation of the relationship between individuals and their environment.

In the 1950s, stress grew to be one of the most frequently researched topics in psychology, and many scientists attempted to establish a common definition of stress. Wolff (1953), as an early example of these attempts, defined stress as the body’s response to a threatening external stimulus. Stress is understood as uncontrollable physiological changes caused by the arousal of the sympathetic nervous system. Starting with such physiological stress definitions, more psychological definitions appeared later. McGrath (1976) defined stress as the perception of a significant imbalance between demand and response capability when failure to meet the physical or psychological demand is considered to have significant consequences. From this viewpoint, the experience of stress arguably differs according to the person’s perception and evaluation of the situation, which can be influenced by their psychological characteristics, cultural values, motivations, and belief systems. Lazarus and Folkman (1984) further argued that stress is the result of the person-environment transaction. What is important in this transaction is that individuals perceive events and other people as sources of stress after the cognitive appraisal of them. In this transaction, if the person does not interpret the events and their environment as a source of stress, they will not experience stress. Cox (1993) also explained stress as a psychological state that is a part of the interactional process between individuals and their environment. Cüceloğlu (1992), on the other hand, defined stress as the effort that an individual extends beyond

physical and psychological capabilities as a result of incompatible physical and social environments. During efforts to adapt to the environment, if internal and external conditions make it difficult for the individual to adapt, the person begins to exert effort beyond their physical and psychological limits. This situation, which causes physical and psychological fatigue, is called stress.

Some conclusions can be drawn by looking at the common features of the definitions of stress. First of all, stress occurs as a result of the transaction between the person and the environment. Secondly, stress is an experience of strain where the individual's capacity is stretched. However, the level of strain and difficulty experienced depends on the person. Moreover, stress affects the whole person, both mind and body.

While these definitions help us grasp the general concept of stress, an examination of stress theories will bring a more thorough understanding of the nature of stress. When stress theories are evaluated one at a time, it becomes clear that they only partially address the aspects of stress. The overall mechanism of stress can only be clarified collectively. For this reason, it is important to know the existing stress theories and to create a synthesis of these theories in order to understand the phenomenon called stress.

2.1.2 Classic Theories of Stress

Many theories have been proposed to explain stress. They can be classified as biological and psychological theories. Theories with a biological foundation describe how the body reacts to stress. Hans Selye's "General Adaptation Syndrome" (1976) is one of these theories. Selye exposed mice to various stressors (extreme cold and heat, pressure, mobility, inactivity, fatigue, etc.) for various durations and observed the physiological responses that occur due to these stressors. Surprisingly, he found that all stressors cause the same physiological response pattern, regardless of the type of stressor (Taylor, 1986). As a result of these experiments, Selye created the theory of "General Adaptation Syndrome" consisting of three stages: 1) *alarm reactions*, 2) *resistance*, and 3) *exhaustion*. In this theory, when the organism tries to adapt to the changes in environmental conditions, the adaptation process causes a state of chronic

physiological arousal, which strains the body as the process requires a constant supply of strength and energy. This causes the body to wear out over time (Allen, 1984). When a person is chronically stressed, the release of stress hormones impairs the body's immune system and paves the way to some physical diseases such as headaches (Nash & Theberge, 2006; Schramm et al., 2015), high blood pressure (Gasperin et al., 2009; Larkin, 2008), and heart diseases (Levine, 2022; Wirtz & von Känel, 2017).

Psychological theories, on the other hand, focus on behavioral, emotional and cognitive reactions to stress. Unlike physiological stress reactions, which are automatic and more predictable, psychological reactions largely depend on the person and how they perceives the environment. Psychological theories seek to answer the question of how personality, learning, and interpretations can turn a personal or social event into a stressful one. One of the psychologically-based classic theories belongs to Freud. In his book "Inhibitions, Symptoms and Anxiety", Freud (1926/1959) talks about three types of anxiety, namely, "realistic anxiety," "neurotic anxiety," and "moral anxiety." First of all, realistic anxiety is a natural and universal anxiety felt when there is a real, external danger threatening life. Neurotic anxiety, on the other hand, originates from unconscious conflicts between unacceptable impulses and the constraints of social reality. Finally, moral anxiety is the fear stemming from conscience. When people commit an action that goes against their moral values or even only think about such a situation, they may feel guilty and ashamed. According to Freud, these three types of anxiety cause tension in the person; reduction of this tension is provided by defense mechanisms, but overuse of these defense mechanisms is also unhealthy. What Freud calls "tension" here is parallel to the concept of psychological stress.

The behaviorist learning theory is another psychological theory that explains stress. Classical and operant conditioning or a combination of both provide explanations for the associative learning between a certain situation and stress responses and behavioral changes that occur due to stress. It also helps to find out how coping behaviors such as avoidance is acquired. Based on his Little Albert experiment, Watson (1920) argued that early childhood conditioning is the basis of adult fears, hatred, and anxiety. On the other hand, the acquisition of avoidance behavior can be explained by operant conditioning. Avoidance behavior plays a role in reducing learned responses such as fear or anxiety. People tend to move away from the tension-causing situation in an attempt to reduce the unpleasant tension. In Albert's example, as his escape from the

white rat reduces the tension, this avoidance behavior gets strengthened. Stressful situations that often cause anxiety thus lead to avoidance behavior.

2.1.3 Cognitive Appraisal

The more recent psychological theory of stress is based on the perspective of cognitive psychology. According to cognitive appraisal theory (Lazarus, 1993; Lazarus & Lazarus, 1994), what really matters is not the event itself, but the individual's evaluation of it. In other words, how the individual interprets an event is crucial. For this reason, the individual's perception of an event and their evaluation of their skills to cope with it cause them to define that event as "stressful" or "non-stressful. Lazarus and Folkman (1984) argued that nothing is stressful unless a person defines something as stressful, reflecting their transactional view of stress and coping. No event is universally stressful. The intensity of the stress people experience is also relative to the meaning people ascribe to events. In this theory, primary and secondary appraisal processes are assumed within the processes of making sense of events. In primary appraisal, the person evaluates how important the event is to them and may interpret the event as threatening, causing loss, or damaging. For example, if someone who loses their job thinks that it will cause financial difficulties for themselves and their family in the future, this is interpreted as a source of stress. However, if the same person perceives the unemployment situation as an opportunity for some new ventures, although they perceive the harm and danger of the situation, this situation may not become a source of stress. If the person perceives the situation as threatening, that is, as "stressful," the secondary appraisal process begins. This is the stage for the subjective evaluation of whether the person's coping skills and resources are sufficient to cope with the situation. Here, it would be appropriate to delve deeper into the topic of coping strategies and explore how individuals use various approaches or resources to effectively manage and direct stressful events in their lives.

2.1.4 Coping Strategies

People assess the meaning of difficult situations and use different ways to handle them. This is known as coping. Lazarus and Folkman (1984) define problem-focused

and emotion-focused coping as two main types of coping strategies. Problem-focused coping involves trying to solve or change the actual problem which are causing distress (Lazarus & Folkman, 1984, p. 150). This can include planning, taking action, or focusing on the next steps. Emotion-focused coping focuses on managing emotions in response to the problem (Lazarus & Folkman, 1984, p. 150). This can involve engaging in distracting activities or seeking support from others. Generally, humans prefer problem-focused coping because it allows them to control and shape their environment to meet their needs and goals. However, when problem-focused coping is not possible, people often turn to emotion-focused coping to feel better about the situation. In certain job environments, such as universities in Turkey, individuals may find themselves needing to rely on emotion-focused coping strategies. This is because they may not have the power or ability to directly change the overall environment or its inherent challenges. Instead, they focus on managing and regulating their emotional responses to the job-related stressors they encounter. By engaging in activities that distract from stress, such as using humor, individuals can better regulate their emotions and find a sense of relief or comfort in their work environment. A sense of humor may help employees reframe and reinterpret stressful work situations in a more positive light. It can provide a cognitive and emotional break from stressors, allowing employees to momentarily distance themselves and experience relief. Positive humor was found to help employees cope with ambiguity (Blanchard et al., 2014) and to ease social interactions, especially in moments of conflict or tension (Plester, 2009). It is important to note that while emotion-focused coping can be valuable in such situations, it does not directly address or resolve the underlying challenges of the job environment. It primarily serves as a means of adapting to and managing the emotional consequences of the circumstances at hand.

2.2 Burnout: A Psychological Consequence of Chronic Stress at Work

Common psychological symptoms of stress are, for example, withdrawal (Gupta & Beehr, 1979; Khawaja et al., 2021), learned helplessness (Bargai et al., 2007), fear (Dymecka et al., 2021), anxiety (Chaby et al., 2015; Melchior et al., 2007), and depression (Cohen et al., 2007; Kim et al., 2022). A stressed person can experience cognitive problems such as decreased attention (Sandström et al., 2011), difficulty in

concentrating the mind on a subject (Baltaş & Baltaş, 2002), difficulty in establishing relationships between various subjects (Baltaş & Baltaş, 2002), excessive forgetfulness (Kane, 2009), and obsessive thoughts (Horowitz, 1975) as well. Those stress-related issues can co-occur as a syndrome to reduce the person's productivity at work and enjoyment of life.

One such syndrome caused by chronic stress at work is called burnout. The concept of burnout first appeared in Freudenberger's paper in 1974. In this paper, burnout was described as loss of energy and strength, and wearing out. It was also defined as the state in which the person exhausted their internal resources as a result of failure, overload, and unfulfilled demands (Freudenberger, 1974). There are various definitions of burnout that are similar in terms of their fundamental framework but differ in terms of their expression. According to Pines and Aronson's (1988) definition, burnout is a state of physical and psychological exhaustion occurring due to prolonged exposure to demanding situations.

Maslach, who developed the Maslach Burnout Inventory (Maslach & Jackson, 1981) is the most prominent theorist and researcher of burnout after Freudenberger. Maslach (2003) defines burnout as a psychological syndrome that emerges as "a prolonged reaction to chronic emotional or interpersonal stressors on the job" (p.189). In contrast to Freudenberger (1974), who solely defined the emotional exhaustion aspect of burnout, Maslach and Jackson (1981) proposed a three-dimensional model of burnout. Firstly, the *emotional exhaustion* dimension of burnout is concerned with symptoms such as fatigue, lack of energy, and feeling emotionally worn out are observed in the individual. This dimension is considered the most important determinant of burnout (Salyers et al., 2017). The individual experiencing emotional exhaustion thinks that they are not treating the people they serve with the same generosity and responsibility they formerly did. Having to go back to work the next day is a source of great concern for the individual, who is burdened with feelings of tension and frustration (Maslach et al., 2001). Secondly, the *depersonalization* dimension of burnout describes emotionless, humiliating, and indifferent behavior towards those one cares for and serves, regardless of the fact that they, too, are human beings. The individual tends to be dehumanized, cynical, condescending, strict, and to take an indifferent attitude (Leiter & Maslach, 1988). Employees may display a distant, indifferent, and cynical attitude towards both the people they serve and the institution

they work for, and they are not disturbed by this situation (Maslach, 1978). Thirdly, the *personal accomplishment* dimension of burnout points to a person's tendency to evaluate themselves negatively (Maslach, 2003). An individual who has a sense of reduced personal accomplishment feels they are inadequate and incompetent and experience a decrease in their motivation (Leiter & Maslach, 1988). Thus, burnout is seen as a syndrome involving the above multiple symptoms. In accordance with Maslach's definition of burnout as a reaction to chronic stressors, studies found that higher perceived stress scores were associated with an increase in emotional exhaustion and depersonalization, and a decrease in personal accomplishment, meaning, overall higher burnout scores (Hendrix et al., 2000; Teles et al., 2020).

Age and gender differences were found in the studies of burnout. Men and women working in the same profession may experience different dimensions of burnout at different levels. According to studies, women experience higher emotional exhaustion than men (Hwang et al., 2021; Murat, 2003; Tmkaya, 2007; Wang et al., 2020). On the other hand, it has been shown that men experience higher depersonalization (Greenglass et al., 1990; Pantenburg et al., 2016; Russell et al., 1987) and lower personal accomplishment (Schadenhofer et al., 2018; Unterbrink et al., 2007) than women. In addition, the prevalence of burnout in young and older workers differs. Studies on burnout have revealed that young workers feel more burnout because their expectations are high in the first years of the profession (Erickson & Grove, 2008; Hwang et al., 2021; Spittle et al., 2015).

Another variable that may affect the experience of burnout is the education level of individuals. Research on this issue reveals contradictory findings. The majority of research hypothesizes that success in coping with burnout will increase as education level increases. So, there will be a negative correlation between education level and burnout. However, when the findings were examined, it was observed that burnout increases as the education level increases (Bijari & Abassi, 2016; Li et al., 2019; Zarei et al., 2019). These findings can be explained by the fact that as education levels increase, the likelihood of having to cope with challenging responsibilities and situations increases (Maslach et al., 2001). The increase in people's future career expectations as their education level increases can also be considered a source of stress. Consequently, it makes sense that burnout research would gravitate to academia when all of these factors are taken into account.

Burnout among educators in higher education institutions has caused significant concern. The burnout experiences of educators have been investigated in relation to different variables, including time allocation, perceived pressure, decreased social support (Padilla & Thompson, 2016), lack of job resources and dispositional optimism (Barkhuizen et al., 2014), job stress and personality traits (Salami, 2011), humor styles and coping humor (Tümekaya, 2007), and demographic variables such as age, gender, and experience (Teles et al., 2020). As a result, these factors were found to be important predictors of burnout.

Student burnout in higher education has also been investigated. Turhan et al. (2023) found that student burnout symptoms, including emotional exhaustion, cynicism, and reduced professional efficacy, increase linearly over the course of a semester in higher education. Additionally, a study conducted by Olson et al. (2023) revealed that nearly one-third of the students experienced frequent burnout symptoms and that a positive relationship between academic workload and burnout symptoms existed. Given their dual role, research assistants may experience job burnout and student burnout simultaneously.

According to research on burnout, chronic failure to effectively cope with stress is what leads to burnout (Friesen & Sarros, 1989; Kaçmaz, 2005). Therefore, it is important to examine coping strategies that can protect research assistants from its negative effects. One of these coping strategies may be the use of humor. Humor has been found to moderate stress and the resultant burnout (e.g., Ho, 2017 – see Section 2.4).

2.3 Humor

The origin of the concept of humor is the Latin word “*humorem*” meaning fluid or liquid. Hippocrates, a Greek physician regarded as the father of medicine, thought that “the proper balance of the body’s four fluids,” or “humors,” including “blood, phlegm, black bile, and yellow bile,” is necessary for good health (as cited in Martin & Ford, 2018, p.20). Humor has a long and much-discussed history. Humor has been discussed by great minds such as Aristotle, Plato, Darwin, Descartes, Kant, Hobbes, Freud, and Twain. Yet, the term humor is used by both experts and non-experts to refer

to several concepts with varied meanings. Rod Martin is well-known for his research on the psychological aspect of humor and especially for assessment tools such as the Coping Humor Scale and the Humor Style Questionnaire which he developed. According to Martin and Ford (2018, p.16), humor is a diverse concept encompassing actions or words that individuals find amusing and that elicit laughter. It involves the cognitive aspects of generating and recognizing such comical stimuli, along with the emotional experience of enjoying them. The context in which a person experiences humor is provided by other people. Therefore, humor can be considered as a social phenomenon. Individuals make jokes and laugh more often when they are with others compared to when they are alone (Martin & Kuiper, 1999; Provine & Fischer, 1989). There are times when people will chuckle by themselves, whether it be when reading a hilarious book, watching a comedy show on television, or recalling a funny personal event. These laughing incidents are nonetheless considered social since the imagined or implied presence of other individuals is involved in such incidents (Allport, 1954). In essence, humor is a fun method for people to engage. It is meaningful to examine humor in the workplace (i.e., the university in the context of this thesis), for it is an intensive social setting.

2.3.1 Classic Theories of Humor

Since the ancient Greek civilization, philosophers have discussed humor in various ways. Classic theories of humor can be classified as the superiority theory, the relief theory, and the incongruity theory, each of which gives weight to different psychological mechanisms (Martin & Ford, 2018). The superiority theory, associated with thinkers such as Thomas Hobbes and Henri Bergson, suggests that humor comes from the perception of one's own superiority or the superiority of a situation over others. Laughter, according to the superiority theory, serves as an expression of the perceived triumph or supremacy one feels over others (Martin & Ford, 2018). Superiority theories of humor thus emphasize interpersonal motives and explain humor as a mechanism of self-esteem enhancement.

The relief theory, associated with Sigmund Freud, suggests that humor functions as a release of tension or repression. Freud points out aggressive and sexual themes in

jokes. According to his theory, the enjoyment of humor is motivated by powerful intrapersonal needs that exist outside of conscious awareness. Humor is seen as a way of bypassing the superego and releasing forbidden sexual and aggressive impulses. Psychoanalytic theory speculated that humor may serve as a mature and healthy defense mechanism against obstacles and stresses of life. In fact, Freud proposed humor to be the highest form of defense mechanism (1928, p. 216) that not everyone is capable of (1905, p. 5).

The incongruity theory, rooted in the work of Immanuel Kant and later developed by Arthur Schopenhauer, suggests that humor arises from the perception of incongruities or inconsistencies (Martin & Ford, 2018). Humor occurs when a person perceives something as surprisingly incompatible or inconsistent with their existing mental framework or schema, in other words, when it involves incongruity. According to this theory, when there is a mismatch or unexpected deviation from what is expected, it creates a cognitive surprise that leads to humor (Martin & Ford, 2018). The incongruity resolution process plays a key role in this theory, as individuals engage in cognitive processes to reconcile and make sense of the perceived incongruity. Whether an event is found funny or not depends on how it is perceived and the successful resolution of the incongruity, as individuals find amusement when their expectations and reality do not match up.

Compared to the older superiority theory, the relief theory and the congruity theory have more positive views of humor. The latter theories suggest that those who use humor can have an advantage of its tension-relief function or the incongruity-resolution function. Moreover, classic theories of humor not only recognized the beneficial role of humor but also laid the foundation for contemporary theories.

2.3.2 Contemporary Theories of Humor

In recent times, psychology has shifted away from broad and vague theories from the past to more specific and testable theories for research. This applies to humor research as well, where the focus has moved towards narrower questions about humor experiences and the specific mental processes involved. However, the quest for a comprehensive theory of humor still continues. Contemporary theories of humor can be

classified as the reversal theory, the comprehension-elaboration theory, and the benign violation theory (Martin & Ford, 2018).

According to Michael Apter's (1982, as cited in Martin & Ford, 2018, p.68) "reversal theory," humor occurs when there is a sudden motivational shift between a "serious and sensible" state and a "spontaneous and playful" state. This shift can be caused by a variety of triggers, e.g., incongruity, surprise, or the violation of social norms or expectations. The reversal theory of humor suggests that humor serves multiple functions. It allows us to temporarily escape from our normal psychological states and explore alternative perspectives. It can also help us cope with tension or anxiety by providing a release through laughter. Additionally, humor can act as a social bonding mechanism, as shared laughter creates a sense of friendship and connection among individuals.

The "comprehension-elaboration theory," proposed by Wyer and Collins (1992, as cited in Martin & Ford, 2018, p.74), explains that humor involves two key cognitive processes: comprehension and elaboration. Comprehension involves understanding the unexpected twist in the joke, while elaboration involves connecting it to relevant knowledge or mental imagery to fully appreciate the humor. The interplay between these two processes contributes to the enjoyment of the joke. In simple terms, it suggests that getting the joke is just the beginning, and our minds work further to find it amusing.

The "benign violation theory," proposed by Warren and McGraw (2015, as cited in Martin & Ford, 2018, p.79), suggests that for something to be funny, it must be seen as both violating and benign. Violations can take various forms, such as incongruity, absurdity, or taboo topics, challenging our expectations or norms. However, for the violation to be humorous, it needs to be perceived as harmless or non-threatening.

In conclusion, these theories demonstrate the diverse functions of humor, including its ability to provide temporary escape, facilitate coping with tension, and foster social bonds. Humor serves as a powerful tool for exploring alternative perspectives, releasing tension through laughter, and creating connections among individuals. Given that, humor can be particularly useful when facing difficult and stressful situations. So, it is now necessary to review humor as a coping strategy.

2.3.3 Humor as a Coping Strategy

Until today, researchers have used different operational definitions of humor and measured it using different instruments. In some studies, researchers exposed participants to humorous stimuli in order to examine the benefits of humor against anxiety-provoking situations (Ford et al., 2012; Yovetich et al., 1990). Other studies focused on the act of finding something funny in a stressful situation rather than passively being exposed to humor and asked participants to generate humor from the stressful stimulus presented to them (Newman & Stone, 1996; Stokenberga, 2006). Meanwhile, the other studies have addressed humor as a personality variable and investigated the propensity to use humor as a coping strategy, that is, how likely participants are to use humor to cope with stressful situations (Ford et al., 2004; Morgan et al., 2019). The present thesis is based on the last-mentioned type of humor research.

As mentioned in the section on stress theories, it is not the “situation itself” that creates stress, but the way one interprets it. Humor offers a way of coping with stressful situations by redefining what happened (Kugler & Kuhbandner, 2015). Therefore, those who use humor as a coping strategy may be relatively more tolerant of the harms posed by occupational stress. Humor can be thought of as a strategy for dealing with burnout individually. Research with academics found that those with a higher tendency to use humor as a coping strategy experienced fewer symptoms of burnout (Tümekaya, 2007).

The use of humor as a coping strategy may also reduce the effects of stereotype threat. Ford et al. (2004) designed a study with two conditions that either would activate (i.e., the stereotype-threat condition) or not activate (i.e., no-stereotype-threat condition) the societal prejudice that women are poor in mathematics. Female college students answered twenty mathematical problems. In the absence of a stereotype threat, coping with a sense of humor did not have an effect on test performance as all participants reported mild degrees of test anxiety. However, under the stereotype-threat condition, those with a stronger tendency for coping with humor reported less anxiety and consequently performed better, compared to those with a lower tendency for coping with humor who felt more anxiety.

In another study, the relationship between cognitive appraisals of university students about the first midterm exam in their Introduction to Psychology class and the

sense of humor in coping was examined. The evaluation of the exam turned out more positive among the students who had more sense of humor, as they considered it as a challenge rather than a stressor (Kuiper et al., 1993). Thus, individuals with a stronger predisposition to utilize humor when coping with difficulties seem to perceive potentially stressful events in a more positive light and find them to be less threatening.

Furthermore, empirical evidence on the relationship between the use of humor as a coping strategy and psychological well-being varies with the type of humor. Humor is a complex process and it is what humor is used and how it is used that will determine its impact on individual mental health. Therefore, it is crucial to understand the types of humor when conducting a study that will examine humor as a coping strategy.

2.3.4 Humor Styles

Martin et al. (2003) proposed four major humor styles, which are aggressive, self-defeating, affiliative, and self-enhancing, based on who benefits from the humor and if it is derogatory or not. While self-defeating and aggressive humor styles are considered negative and maladaptive, self-enhancing humor, and affiliative humor styles are considered positive and adaptive.

Aggressive humor has derogatory features such as ridicule, humiliation, and satire of others. Individuals with this humor style do not care about how their humor will affect others and can often hurt people. Therefore, this humor style is considered maladaptive. In this humor style, even sexist and racist jokes can be seen. These individuals may also use their offensive humor as a threat to manipulate others (Martin et al., 2003). According to empirical evidence, a positive correlation exists between the use of aggressive humor and burnout (Avtgis & Taber, 2006; Tümkaya, 2007).

Self-defeating humor is such a humor style that a person with this humor style often uses humor in the way of mocking themselves. While doing this, the main purpose is to make others laugh because they believe that if they can achieve this, they will be socially accepted. In self-defeating humor, the individual prefers to deny certain things. In other words, they use this style of humor to mask their negative feelings and problems. Despite their reputation for being witty and funny, it might be stated that these people have poor self-esteem (Martin et al., 2003). Research shows that the use

of self-defeating humor was positively correlated with perceived stress (Richard & Kruger, 2017) and also with burnout (Avtgis & Taber, 2006; Tümkaya, 2007).

Affiliative humor is a type of humor that is used by those who want to make others laugh by telling jokes and other amusing stories. In doing so, they aim to improve their relationships in positive ways and to reduce tension. They may also amuse the group by making fun of themselves, but while doing this they continue to accept themselves and do not take their own jokes seriously (Martin et al., 2003). There is research evidence for affiliative humor leading to reduced stress and increased satisfaction with coworkers (Romero & Arendt, 2011). Moreover, affiliative humor and burnout were found to be negatively correlated (Tümkaya, 2007).

Self-enhancing humor represents a humorous outlook on life. Maintaining a humorous point of view even in negative and stressful situations is the main feature of this humor style (Martin et al., 1993). Unlike affiliative humor, the goal is to lift the mood of the self as opposed to making the group laugh (Martin et al., 2003). Ford et al.'s (2017) research found that participants who used self-enhancing humor had less anxiety overall than those in the self-defeating humor condition and those in the no-humor condition as a control. What makes this research different from others is that different styles of humor were experimentally induced rather than measured as a personality variable using self-report instruments. This research indicates that a humor style such as self-enhancing humor can act as an adaptive strategy that people can consciously choose to regulate their psychological state in a difficult-to-control situation such as the workplace. According to the research that has been reviewed thus far, humor may function as a moderator of the relationship between stress and burnout. Previous studies found that self-enhancing humor was negatively correlated with perceived stress (Richard & Kruger, 2017) and also with burnout (Tümkaya, 2007).

2.4 The Potential Role of Humor as a Moderator of Stress and Burnout

Cognitive appraisal, as discussed in Section 2.1.3, plays a significant role in the stress response by influencing how individuals perceive and evaluate a given situation. By shaping our interpretation of events, cognitive appraisal may act as a stress moderator variable, either amplifying or mitigating the stress we experience. Certain

personality traits, such as having a sense of humor, can contribute to a more positive cognitive appraisal, thereby assisting individuals in effectively managing stress and promoting overall well-being.

Martin and Ford's (2018) definition of a sense of humor suggests that it is not a singular trait but a collection of various traits and abilities related to different aspects of humor. It encompasses the ability to comprehend jokes, express humor, create humorous content, appreciate different forms of humor, actively seek sources of laughter, remember jokes or funny events, and choose humor as a coping strategy. Additionally, a sense of humor includes the capacity not to take oneself too seriously and to find amusement in one's own imperfections and weaknesses. Rather than being a single characteristic, a sense of humor encompasses a range of traits and skills associated with different forms and functions of humor. This comprehensive understanding of the sense of humor becomes especially relevant when considering the growing body of evidence demonstrating its stress-reducing effects.

Martin and Lefcourt (1983) were the ones who intensively investigated the stress-moderating effect of a sense of humor. Individuals can use humor to distance themselves from the problem. Humor has the potential to alter one's cognitive viewpoint. In other words, it can enable the person to reevaluate a stressful situation from a less threatening perspective. Moreover, laughter improves both physical and psychological well-being. As a result, by serving as a buffer, humor can minimize burnout. In their study, Martin and Lefcourt (1983) tested this stress-buffering hypothesis by measuring the number of stressful life events the participants reported to have experienced and their mood. They discovered that participants with higher coping humor scores showed fewer mood disturbances despite the increasing number of stressful life events. Martin and Lefcourt (1983) concluded their study by stating that additional research is needed to explore which stressors humor is most efficient and which are less suitable. They also recommended conducting additional studies on the moderating effect of different styles of humor.

Several subsequent studies have supported the stress-buffering hypothesis. Humor's moderating effects on the paths between various measures of stress and various psychological/physiological outcome variables have been demonstrated. A study by Abel (1998) showed humor as a moderator variable on the path between

perceived stress and stress-related physical symptoms, in that a positive relationship was found between perceived stress and physiological symptoms only when the level of humor was lower, but not when humor was high. They also demonstrated how humor played the role of a moderator in the relationship between perceived stress and anxiety, but only for male subjects. Moreover, Wallace et al. (2010) conducted a study with 232 counselors specialized in abuse cases. The study indicated coping with humor as a moderator for the association between role ambiguity and burnout. In Sliter et al.'s study (2014), coping with humor moderated the relationship between the number of traumatic incidents experienced and the posttraumatic stress disorder, burnout, and absenteeism of firefighters.

On the other hand, some studies did not support the stress-buffering hypothesis regarding humor and found no evidence for the moderation effect of humor. For example, Safranek and Schill (1982) conducted a study with 161 undergraduate students and found significant correlations between the scores of the Life Experiences Survey, the Beck Depression Inventory, and the State-Trait Anxiety Inventory. However, humor did not moderate the relationship among these variables. Porterfield (1987) examined the role of humor in the association between negative events in life, depressiveness, and physical symptomatology of undergraduate students. Contrary to their hypotheses, humor did not reduce the detrimental impacts of stressful life events on physical or mental illness.

Moreover, Anderson and Arnoult (1989) performed a set of regression analyses to investigate whether perceived control, humor coping, irrational beliefs, and positive stress moderated the relationship between negative stress and health consequences. Various statistical criteria were used in the study to determine if there are significant relationships between negative stress and moderators. When a lower threshold for declaring a relationship as significant was applied, four interactions between negative stress and moderators came close to being considered significant. However, three of these interactions exhibited effects in the opposite direction than expected, suggesting that they were likely Type I errors. The interaction between negative stress and coping humor for wellness (one of the health measures) was in the wrong direction, as individuals with higher coping humor reported lower levels of wellness under high stress compared to low stress. The authors acknowledge that there is a bias in psychology research towards reporting positive results and against reporting null

results, and emphasize the importance of fair testing and willingness to accept and report null results for theory development.

Healy and McKay (2000) investigated the association between nurses' job-related stress, coping strategies, job satisfaction, and mood disturbances. The researchers also explored whether using humor as a coping strategy could act as a protective factor from stress. The findings did not provide any evidence suggesting humor as a moderator for the association between stress and mood. Svebak et al. (2004) hypothesized that a high sense of humor, combined with a broader perspective on life's meaning and the attribution of importance to daily activities, can help high-school students cope with stressors and reduce potential health risks. The study found associations between sex, stress, having a meaningful perspective on life, and bodily complaints. However, a sense of humor did not account for a significant portion of the variance in bodily complaints or provide a buffering effect against stress on health.

Note that some of these studies measured stressors (e.g., stressful or traumatic life events) and their outcomes while other studies measured perceived stress levels and their outcomes. The mixed result regarding the stress-moderating effect of humor may come from this inconsistency in measurement. Furthermore, as Ho (2017) points out, the majority of research did not clearly distinguish adaptive humor styles from maladaptive ones, which may have weakened humor's moderating effect and led to conflicting findings. Ho's (2017) study thus specifically tested the role of positive humor on stress and burnout using the Humor Style Questionnaire Chinese version. Ho measured teacher's perceived level of stress at work on a 5-point scale from "not stressful at all" to "extremely stressful" and their level of burnout on the Maslach Burnout Inventory Chinese version. As a result, he found moderating effects of positive humor as well as gender on the association between teachers' perceived stress and burnout.

The exploration of humor styles and their influence on various aspects of well-being has attracted significant attention in recent research. Self-defeating humor was found to moderate relationships between different variables, such as social anxiety and depression (Tucker et al., 2013), job stress and emotional exhaustion (Oktug, 2017), as well as perceived stress and physical symptoms (Richards & Kruger, 2017). Additionally, positive humor styles have also been identified as moderator variables in

several studies. For example, the affiliative humor style has been found to moderate the association between social anxiety and depressive symptoms (Tucker et al., 2013), while the self-enhancing humor style has been found to moderate the relationship between job stress and emotional exhaustion (Oktug, 2017). Furthermore, in addition to moderation results, Dyck and Holtzman (2013) conducted a mediating analysis, revealing that the positive correlation between affiliative and self-enhancing humor styles and well-being was mediated by higher levels of perceived social support. In contrast, the negative association between self-defeating humor and well-being was found to be mediated by lower levels of perceived social support. This result suggests that the relationship between humor styles and their psychological consequences may not be direct. The relationship may be mediated by cognitive appraisal and the resulting perception of the situation.

2.5 The Purpose of the Study

The purpose of this thesis was to clarify the relationship between research assistants' tendency to use a sense of humor and their humor styles, their perceived stress, and their experience of burnout. The study predicted that those who have a propensity to use humor as a coping strategy have an advantage over those who do not in the management of stress and eventual burnout. There is no known research that investigated the relationship between these variables at the same time. Based on the literature review, four hypotheses were formulated for the purposes of the study:

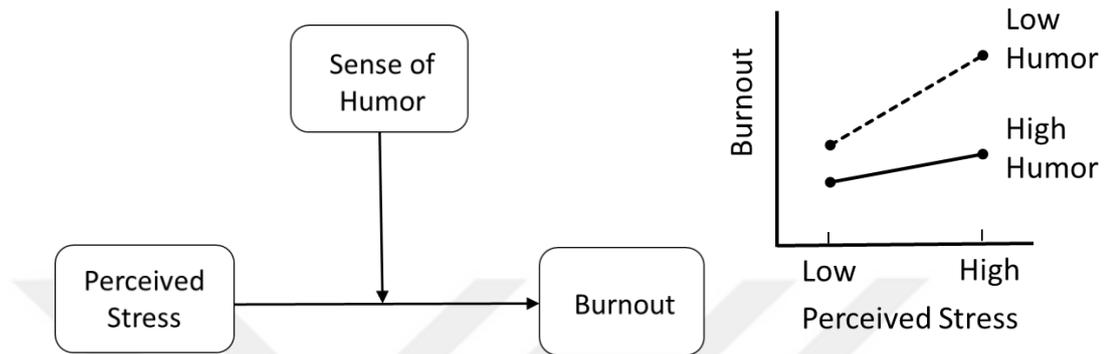
H₁: There will be a positive association between research assistants' perceived stress and their burnout, namely if they perceive a higher level of stress, they are more likely to experience burnout.

H₂: There will be a negative association between research assistants' sense of humor and their burnout, namely, if they have a higher tendency to use their sense of humor as a coping strategy, then they are less likely to experience burnout.

H₃: Sense of humor will play the role of moderator and weaken the association between perceived stress and burnout (See Figure 1).

Figure 1

Hypothetical Model between the Sense of Humor, Perceived Stress, and Burnout



H₄: The impact of research assistants' sense of humor on their burnout changes depending on the style of humor they use. If research assistants have more adaptive humor styles (i.e., affiliative humor and self-enhancing humor), then they will experience less burnout. Maladaptive humor (i.e., aggressive and self-defeating humor) does not have the same effect.

Based on the results of hypothesis testing analyses, an overall model of the relationship between these variables was to be formulated.

3. METHOD

3.1 Participants

For the present study, the sample of research assistants in Turkey was selected via a convenience sampling method. Some participants were recruited by sending an online invitation containing the link to the research questionnaire to their e-mail addresses. Others were referred to research by participants who received an invitation. As a result of recruitment, 406 research assistants from 51 different universities participated in the study. The participants were composed of 260 females (64.0%) and 144 males (35.5%), with two participants (0.5%) who did not wish to specify gender. The age of participants ranged between 23 and 42 ($M = 29.52$, $SD = 3.48$). The work experience of participants ranged between 1 month to 18 years ($M = 4.09$, $SD = 2.93$). The participants were composed of 93 master's students (22.9%) and 295 PhD students (72.7%). Based on the information they provided, the remaining 18 participants (4.4%) were master's graduates, PhD graduates, or integrated PhD students. The distribution of participants by universities and faculties is shown in Appendix A.

3.2 Instruments

For the present study, an online questionnaire was created using Qualtrics. Before starting the questionnaire, the participants were first presented with an informed consent form (See Appendix B). In this form, the participants were informed of the general purpose of the study. Furthermore, they were also informed that their participation in this research is completely voluntary and that no personally identifiable information will be gathered during the course of the research. The participants were additionally informed that the questionnaire did not contain questions that would cause personal discomfort in general, but they had the right to withdraw if they felt uncomfortable with the questions or for any other reason during participation.

After the participants gave consent, the questionnaire began with the Sociodemographic Form (See Appendix C). In this form, participants were asked about their age, gender, how long they have been working as a research assistant, the name of

the university they are currently working at, which faculty they are working in, what type of program they are studying, and the name of the program they are currently studying. The second part consisted of four scales, namely, the Perceived Stress Scale (See Appendix D), the Maslach Burnout Inventory (See Appendix E), the Coping Humor Scale (See Appendix F), and the Humor Styles Questionnaire (See Appendix G), in this order. Detailed information about these scales will be presented in the following sections.

Finally, the questionnaire ends with a debriefing form (See Appendix H). In this form, participants were thanked for their participation, and the e-mail address of the researcher was shared in case they wanted to get more information about the research or to be referred for psychological support. The purpose of the research was discussed in greater detail in this section than in the informed consent form. For the sake of the study's nonbiased progress, participants were asked not to share detailed information about the research with other people they knew would participate in the study.

3.2.1 Perceived Stress Scale (PSS)

The Perceived Stress Scale (PSS) was devised by Cohen et al. (1983). It was designed to measure how stressful the person perceives a given situation in their life. The PSS consists of 14 items. Each item is evaluated with a 5-point rating scale in the range between 0 (never) and 4 (very often). Items numbered 4, 5, 6, 7, 9, 10, and 13 are scored in reverse because they contain positive statements. The scores that can be obtained from the PSS are in the range between 0 and 56. The higher scores indicate that the person perceives a higher level of stress. The Cronbach's α coefficient of internal consistency was found to be .84, .85, and .86 in three different groups Cohen et al. (1983) used. Their test-retest reliability over a two-day interval was found to be .85.

The Turkish version of PSS (PSS-TR) was first developed by Eskin et al. (2013). In his adaptation study, Cronbach's α coefficient and test-retest reliability were .84 and .87, respectively. The study revealed that PSS scores are significantly and positively correlated with both depression and negative life events. Additionally, perceived social support, self-esteem, and life satisfaction were all significantly and negatively correlated with PSS scores. Two factors were identified in the exploratory factor

analysis and these factors were named “perceived insufficient self-efficacy” and “perceived stress/distress.” The Cronbach’s α coefficients of these factors were found to be .81 and .76, respectively.

3.2.2 Maslach Burnout Inventory (MBI)

Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI) to examine various aspects of burnout in individuals who are employed in jobs that demand interaction with others. The scale consists of 22 items and optional 3 items. Each item in the scale is scored based on its intensity and frequency. The 7-point frequency scores were labeled from “0 - Never” to “6 - Every day”, while the 7-point intensity scores were labeled from “1 - Very mild, barely noticeable” to “7 - Major, very strong”.

The MBI comprises three subscales, each of which represents a distinct dimension of burnout. The “emotional exhaustion” subscale has 9 items (numbers 1, 2, 3, 6, 8, 13, 14, 16, & 20) that describe taking responsibility beyond what is emotionally secure and feelings of being exhausted emotionally by their job. The “personal accomplishment” subscale has 8 items (Item numbers 4, 7, 9, 12, 17, 18, 19, & 21) that depict feelings of having the ability to do something successfully or efficiently while working with people. The “depersonalization” subscale has 5 items (Item numbers 5, 10, 11, 15, & 22) that describe emotionless, humiliating, and indifferent behavior towards those one cares for and serve, regardless of the fact that they, too, are human beings. The higher emotional exhaustion and depersonalization subscale scores indicate the higher perceived burnout. On the other hand, the lower personal accomplishment subscale scores indicate higher perceived burnout as these items in the personal accomplishment subscale were positively worded. Therefore, in order to obtain a unidirectional total burnout score, the items in the personal accomplishment subscale are scored in reverse and added to the other subscale scores

Maslach and Jackson’s (1981) original paper reported that the Cronbach’s α coefficient of .83 (frequency) and .84 (intensity) for the entire 25-item (22 items plus optional 3) scale, .86 (frequency) and .89 (intensity) for the emotional exhaustion subscale, .74 (frequency) and .74 (intensity) for the personal accomplishment subscale,

and .72 (frequency) and .77 (intensity) for the depersonalization subscale. The test-retest reliability coefficients over a 2-4 weeks interval were .82 (frequency) and .53 (intensity) for the emotional exhaustion subscale, .68 (intensity) and .80 (frequency) for personal accomplishment, and .60 (frequency) and .69 (intensity) for the depersonalization subscale.

The 22-item MBI was adapted to Turkish by Ergin (1992). In the adaptation study, some changes were made in the inventory as a result of the analysis of the data obtained from a group of 235 people. In the Turkish version of MBI (MBI-TR), the original 7-point rating scale for frequency (0-6) and the other 7-point rating scale for intensity (1-7) were changed and integrated into a 5-point rating scale and labeled as follows: 1 (Never [*Hiçbir zaman*]), 2 (Very rarely [*Çok nadir*]), 3 (Sometimes [*Bazen*]), 4 (Often [*Çoğu zaman*]), and 5 (Always [*Her zaman*]). The Cronbach's α coefficients of the subscales of MBI-TR were found to be .83 for emotional exhaustion, .72 for personal accomplishment, and .65 for depersonalization in Ergin's (1992) study. In the present research, the total score of three subscales (the total MBI) was used for the analyses.

3.2.3 Coping Humor Scale (CHS)

The Coping Humor Scale (CHS) was developed by Martin and Lefcourt (1983) and it was designed to determine the individual's tendency to use a sense of humor to cope with stressful situations. The scale consists of 7 items. Each item is evaluated with a 4-point Likert scale from "1 - strongly disagree" to "4 - strongly agree". Items 1 and 4 are scored in reverse. The higher scores obtained from the scale indicate the greater degree of the use of humor as a coping strategy. The Cronbach's α coefficients ranged from .60 to .70. The test-retest reliability over a 12-week interval was found to be .80.

CHS was adapted to Turkish by Yerlikaya (2009). The Cronbach's α coefficient of the Turkish version of CHS (CHS-TR) was reported as .67. The adaptation study revealed that CHS scores were significantly and negatively correlated with perceived stress, anxiety, and depression.

3.2.4 Humor Styles Questionnaire (HSQ)

Martin et al. (2003) developed the Humor Styles Questionnaire (HSQ) to examine individual differences in the style of humor people use. The scale consists of 32 items. Each item is evaluated with a 7-point Likert scale ranging from “1 - Totally disagree” to “7 - Totally agree.” There are four subscales in the HSQ, which are “Self-Enhancing Humor,” “Affiliative Humor,” “Aggressive Humor,” and “Self-Defeating Humor.” Each of the subscales consists of 8 items, so the scores that can be obtained from each subscale of the HSQ are in the range of 7-56. The higher the score, the more frequently the person uses a particular humor style. Items 1, 7, 9, 15, 16, 17, 22, 23, 25, 29, and 31 are scored in reverse.

Two of the four subscales in the HSQ are considered adaptive humor styles as they contribute to psychological well-being. The remaining two are considered maladaptive as they may be less beneficial or even harmful to psychological well-being. In the self-enhancing humor subscale (Item numbers 2, 6, 10, 14, 18, 22, 26, & 30), which is adaptive, there are statements about the individual’s use of humor for one’s own benefit and in a way that does not harm anyone. The other adaptive humor style is defined as affiliative humor (Item numbers 1, 5, 9, 13, 17, 21, 25, & 29), and it refers to using humor in a way that does not harm anyone to improve relationships with others. In the aggressive humor subscale (Item numbers 3, 7, 11, 15, 19, 23, 27, & 31), which is maladaptive, there are statements about the use of humor for one’s own benefit but against others. The other maladaptive humor style is defined as self-defeating humor (Item numbers 4, 8, 12, 16, 20, 24, 28, & 32), and it refers to using humor against oneself to improve relationships with others.

Cronbach’s α coefficients turned out to be .81 for self-enhancing humor, .80 for affiliative humor, .77 for aggressive humor, and .80 for self-defeating humor. The test-retest reliability coefficients over an interval of one week were .81, .85, .80, and .82, respectively.

The Turkish version of the HSQ was developed by Yerlikaya (2003). The Cronbach’s α coefficients of the HSQ subscales were found to be .78 for self-enhancing humor, .74 for affiliative humor, .69 for aggressive humor, and .67 for self-defeating

humor. The reliability coefficients of the subscales against time were found to be .82, .88, .85, and .85, respectively.

3.2.5 Reliability Analysis of the Scales Used in the Study

The internal consistency of the four scales used in the present study was analyzed. Table 1 shows Cronbach's α coefficients for each scale.

Table 1

Reliability Statistics

Measures	<i>n</i> of items	Cronbach's α
Perceived Stress Scale	14	.89
Maslach Burnout Inventory	22	.90
Coping Humor Scale	7	.78
Humor Styles Questionnaire		
Self-Enhancing Humor Subscale	8	.88
Affiliative Humor Subscale	8	.87
Aggressive Humor Subscale	8	.75
Self-Defeating Humor Subscale	8	.80

The Cronbach's α reliability of the Perceived Stress Scale, the Maslach Burnout Inventory, the Coping Humor Scale, the Affiliative Humor Subscale, and the Self-Enhancing Humor Subscale turned out to be higher than both development and adaptation studies' results. The reliability coefficients of the Aggressive Humor Subscale and the Self-Defeating Humor Subscale study were also high enough.

3.3 Procedure

Ethical approval was received from Yeditepe University Human and Social Research Ethics Committee (Decision Date: 10.02.2023 Decision Number: 36/2023

Letter of Notification No. E.50532705-302.14.01-1496). A copy of the research ethics committee's decision document can be found in Appendix I. The study employed an online data collection method using Qualtrics, a widely used survey platform. Participants were asked to read the informed consent form and give an approval by ticking the designated box. This signified their voluntary agreement to take part in the research. Following this step, participants proceeded to answer the main part of the questionnaire, which consisted of several components. The questionnaire included a sociodemographic form to gather information about participants' backgrounds and demographics. Additionally, it encompassed several standardized scales, namely PSS, MBI, CHS, and HSQ. The process of completing the questionnaire typically took around 15-20 minutes. Upon finishing the questionnaire, the participants were given a debriefing form. Lastly, the message thanking the participants for their participation was shown to them together with an e-mail address to contact in case they wanted to obtain further information or desired to be referred for psychological support. The specific questionnaires used in the study can be found in Appendices B to H. The data collection took place in April 2023.

4. RESULTS

4.1 Descriptive Statistics of the Dataset

The distribution of the data was checked prior to conducting hypothesis-testing analyses. Table 2 presents skewness and kurtosis together with other descriptive statistics of the data. The values of skewness and kurtosis ranged from -0.97 to 1.02, which were well within the generally acceptable range between -2 and +2 proposed by George & Mallery (2010) and the criteria specified by Kim for the large data ($N > 300$). Examination of histograms and QQ plots also indicated normality. Normal distributions of the data were assumed accordingly.

Table 2

Summary Statistics Table for Scores on Perceived Stress Scale, Maslach Burnout Inventory, Coping Humor Scale, and Humor Styles Questionnaire

Measure	<i>M</i>	<i>SD</i>	<i>Mdn.</i>	<i>Min.</i>	<i>Max.</i>	Skewness ^a	Kurtosis ^b
Perceived Stress Scale (PSS)	30.4	7.87	31	5	49	-0.30	-0.03
Maslach Burnout Inventory (MBI)	55.8	12.85	55	28	100	0.20	-0.27
Coping Humor Scale (CHS)	18.7	18.7	19	8	28	-0.15	-0.18
Humor Styles Questionnaire (HSQ)							
Self-Enhancing Humor (SEH)	35.3	9.43	36	12	56	-0.09	-0.52
Affiliative Humor (AFH)	42.8	8.46	44	12	56	-0.97	1.02
Aggressive Humor (AGH)	21.3	7.53	20	8	49	0.68	0.26
Self-Defeating Humor (SDH)	28.7	9.04	29	8	55	0.16	-0.40

$N=406$ ^a $SE=.121$ ^b $SE=.242$

Assumptions of linear regression were checked, and there was no violation found. Analysis of standard residuals was performed to see whether they were normally distributed, and the data did not contain outliers (Std. Residual Min = -3.23, Std. Residual Max = 6.12). Analysis of collinearity statistics showed that there was no multicollinearity in the data (Burnout, Tolerance = .90, VIF = 1.12; Coping Humor, Tolerance = .90, VIF = 1.12). The data met the assumption of independent errors (Durbin-Watson value = 2.19). The histogram of standardized residuals showed that data was normally distributed (M = -3.76E-16, SD = 0.99) as demonstrated by the P-P plot of standardized residuals. Finally, the scatterplot of standardized predicted values illustrated that the data met the assumption of linearity.

4.2 Correlational Analyses

To get the overall picture of the relationship between the measured variables, Pearson's product-moment correlation coefficients were computed between the PSS, the MBI, the CHS, and the four humor styles of the HSQ measured variables. Table 3 shows the resulting intercorrelations.

Table 3

Intercorrelations (Pearson's r) for Scores on Perceived Stress Scale, Maslach Burnout Inventory, Coping Humor Scale, and Humor Styles Questionnaire

	PSS	MBI	CHS	SEH	AFH	AGH	SDH
Perceived Stress Scale (PSS)	-						
Maslach Burnout Inventory (MBI)	.58**	-					
Coping Humor Scale (CHS)	-.23**	-.32**	-				
Self-Enhancing Humor (SEH)	-.26**	-.34**	.79**	-			
Affiliative Humor (AFH)	-.15**	-.34**	.60**	.56**	-		
Aggressive Humor (AGH)	.02	.08	.18**	.11*	.14**	-	
Self-Defeating Humor (SDH)	.11*	-.04	.30**	.29**	.33**	.40**	-

Note. N=406 * $p < .05$ (2 tailed), ** $p < .01$ (2 tailed)

The first hypothesis of the present study was that there would be a positive association between research assistants' perceived stress and their burnout. As shown in Table 3, the results of the Pearson correlation analysis supported the hypothesis as there was a statistically significant positive correlation between PSS and MBI ($r = .58, p < .001$).

The second hypothesis of the present study was that there would be a negative association between research assistants' use of humor and their burnout. As shown in Table 3, the results of the correlation analyses supported the hypothesis as there was a statistically significant negative correlation between CHS and MBI ($r = -.32, p < .001$).

The fourth hypothesis of the present study was that the impact of research assistants' sense of humor on their burnout would change depending on the style of humor they use. It was hypothesized that the more positive humor they used, the less burnout they would experience. As shown in Table 3, positive humor styles (Self-enhancing and Affiliative) were found to have statistically significant associations with burnout. There were negative correlations of MBI with self-enhancing ($r = -.34, p < .001$) and also with affiliative humor ($r = -.34, p < .001$). This means a higher tendency to use positive humor styles was associated with a lower level of burnout. No negative humor styles, neither aggressive nor self-defeating humor styles, were found to be associated with burnout. This result aligns with Hypothesis 4.

4.3 Testing the Moderating Role of Humor

In order to test the third hypothesis that the use of humor moderates the relationship between perceived stress and burnout, 2 x 2 factorial ANOVA for burnout was conducted by dividing participants into high humor group ($n = 222$, CHS range 19-28) and low humor group ($n = 184$, CHS range 8-18), and high perceived stress group ($n = 206$, PSS range 31-49) and low perceived stress group ($n = 200$, PSS range 5-30) using mean scores of all participants (CHS $M = 18.7$; PSS $M = 30.4$) as cutoff points. Table 4 presents the summary of the ANOVA results.

Table 4

Summary Table for Two-Way Analyses of Variance of the Effects of Perceived Stress and Humor on Burnout

Variable	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2_p
Perceived Stress (High/Low)	1	13236.95	13237.95	111.40	<.001	.217
Humor (High/Low)	1	2336.03	2336.03	19.66	<.001	.047
Perceived Stress x Humor	1	17.17	17.17	0.14	.704	.000
Within Cells (Error)	402	47768.69	118.83			
Total	406	1328700,00				

As understood from the P values and the partial ETA square values in Table 3, perceived stress has a significant, large main effect on burnout. Regardless of perceived stress, the main effect of humor on burnout was also statistically significant. However, there was no significant interaction between perceived stress and coping humor. The non-significant interaction suggests that the relationship between perceived stress and burnout was not moderated by the levels of humor.

Table 5 presents descriptive statistics for the factorial analysis and Figure 2 is the graphic representation of group differences. Participants in the high perceived stress groups, regardless of their levels of humor, had higher burnout scores than participants in the low perceived stress group. On the other hand, participants in the high-humor groups, regardless of their perceived stress levels, had lower burnout scores. It is clear from two parallel lines in Figure 2 that the relationship between perceived stress and burnout, which is represented by the upward slope of burnout scores from the low to the high perceived stress, is unaffected by the level of humor.

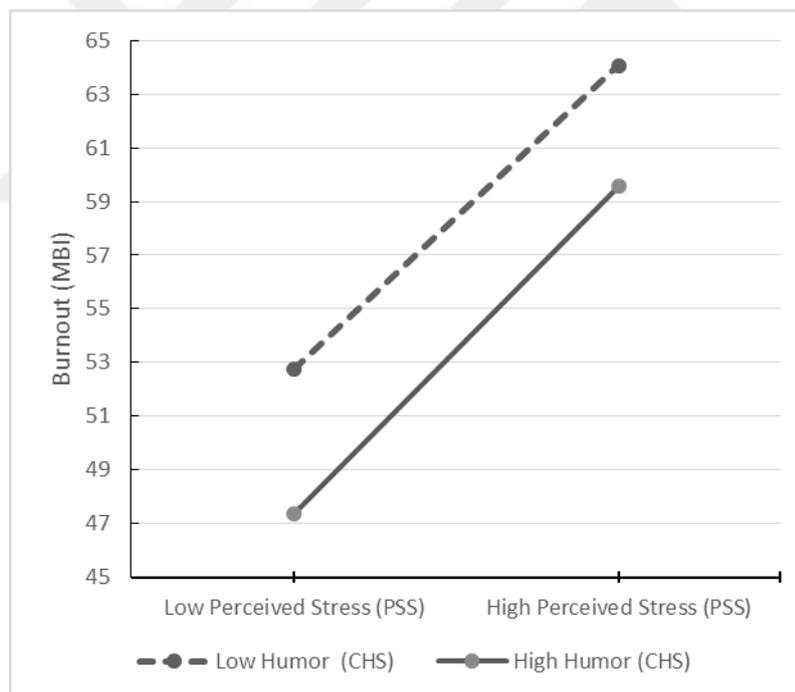
Table 5

Means and Standard Deviations for Burnout (MBI) Scores for Perceived Stress x Humor Effects

		Humor (CHS)					
		Low		High		Total	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Perceived Stress (PSS)	Low	52.74	11.88	47.37	10.28	49.23	11.12
	High	64.08	10.90	59.56	11.01	62.08	11.15
	Total	59.83	12.52	52.37	12.15	55.75	12.85

Figure 2

Estimated Marginal Means for Burnout Scores as a Function of Perceived Stress and Humor



In order to confirm the non-significance of the moderation effect of humor (CHS) on the relationship between perceived stress (PSS) and burnout (MBI), the moderation analysis was conducted using the Process Macro add-on of the SPSS

multiple regression analysis. Although the overall model accounted for a significant proportion of variance in MBI ($R^2 = .38, p < .001$), the interaction between perceived stress and humor did not reach statistical significance ($F(1, 402) = 0.61, p = .44$), indicating that the relationship between perceived stress and burnout was not significantly moderated by humor. These results confirmed the non-significant finding of the ANOVA, thus rejecting Hypothesis 3. In addition, a series of moderation analyses were performed for the four humor styles in the place of coping humor. None of them turned out significant, indicating that the relationship between perceived stress and burnout was not moderated by any of the humor styles.

4.4 Testing the Mediating Role of Perceived Stress

While the third hypothesis about the moderation effect of humor did not yield significant results, an alternative model emerged through a subsequent exploration using mediation analyses. Previous analyses found that humor was negatively correlated with both perceived stress and burnout. Therefore, it was hypothesized that humor directly impacts the experience of burnout but, at the same time, it impacts burnout via lowering perceived stress level. In this way, perceived stress could be seen as a mediator between humor and burnout. This new pathway sheds light on a potential mechanism underlying the relationship between the variables of interest. Consequently, the focus of the analysis shifted towards the mediation analysis, which offered a more robust explanation of the observed associations and uncovered novel perspectives for understanding the phenomenon under investigation.

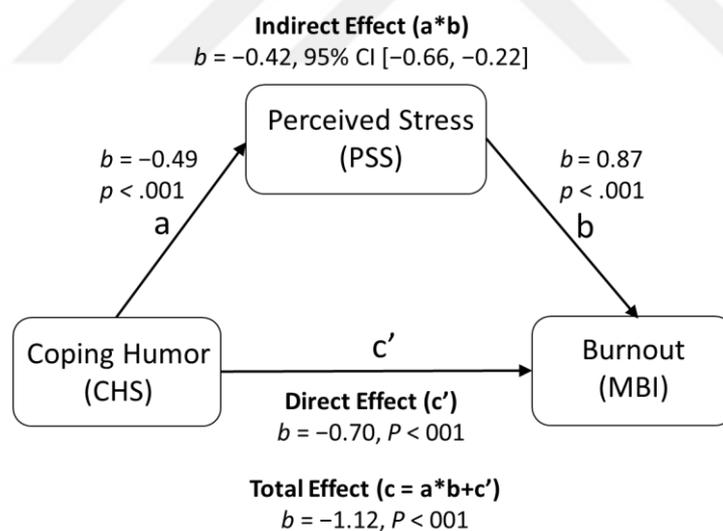
To test the mediating role of perceived stress between humor and burnout, a series of mediation analyses were performed using the Model 4 procedure of PROCESS. In these regression analyses, the bootstrapping method, where 10,000 resamples were used to identify the full indirect effect, along with a 95% confidence interval. As a safeguard against bias in standard error estimations in the analyses, the heteroscedasticity-consistent approach to estimating standard errors (HC3) was selected in the model-testing procedure.

Firstly, the indirect effect of coping humor on burnout through perceived stress was examined. The mediation model (Figure 3) accounted for significant unique

variance in research assistants' burnout, $R^2 = .37$, $F(2, 403) = 102.75$, $p < .001$. The hypothesis that the direct effect (c') of coping humor accounts for the significant amount of unique variance in burnout, holding the levels of perceived stress consistent across research assistants, was also supported by the model, $b = -0.70$, $P < 001$. The hypothesis for the indirect effect ($a*b$) of coping humor via perceived stress to account for the significant amount of unique variance in burnout was also supported. Based on these results, it appears that using coping humor is associated with lower levels of burnout. This relationship is partially explained by the fact that individuals who use coping humor also tend to perceive less stress. Additionally, the lower the perceived stress levels, the lower the levels of burnout experienced by research assistants. Overall, these results suggest that coping humor may serve as a protective factor against burnout by reducing perceived stress levels.

Figure 3

Mediating Role of Perceived Stress on the Relationship between Coping Humor and Burnout



The mediation analysis further explored the effects of different humor styles on burnout using perceived stress as a mediator. The results showed that adaptive humor styles significantly impacted burnout directly, as well as indirectly through perceived stress. The mediation model for the effect of self-enhancing humor on burnout through perceived stress (Figure 4) accounted for significant unique variance in the research

assistants' burnouts, $R^2 = .37$, $F(2,403) = 113.65$, $P < .001$. The mediation model for the effect of affiliative humor on burnout through perceived stress (Figure 5) also accounted for significant unique variance in the research assistants' burnouts, $R^2 = .40$, $F(2,403) = 98.19$, $P < .001$. The direct effects of these two adaptive humor styles on burnout were also significant as indicated in Figures 4 and 5.

The mediation model for the effect of one of the maladaptive humor styles, aggressive humor, on burnout through perceived stress (Figure 6) accounted for significant unique variance in the research assistants' burnouts, $R^2 = .34$, $F(2,403) = 65.14$, $P < .001$. However, aggressive humor did not have a significant direct nor indirect effect on burnout, although perceived stress significantly impacted burnout. The mediation model for the other maladaptive humor style, self-defeating humor, on burnout through perceived stress accounted for significant unique variance in the research assistants' burnouts, $R^2 = .35$, $F(2,403) = 72.46$, $P < .001$. Although the effect of aggressive humor on predicted perceived stress was statistically significant ($p < .05$), the effect was in a positive direction rather than negative (Figure 7). Overall, the total effects of both aggressive humor and self-defeating humor on burnout were non-significant.

Figure 4

Mediating Role of Perceived Stress on the Relationship between Self-Enhancing Humor and Burnout

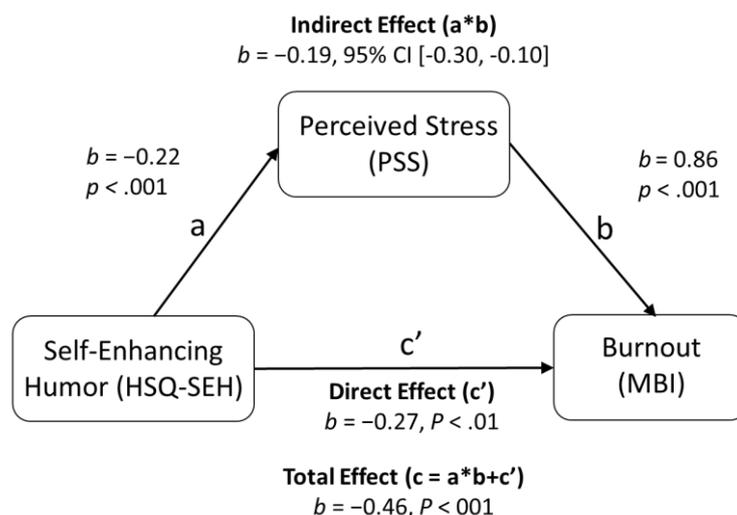
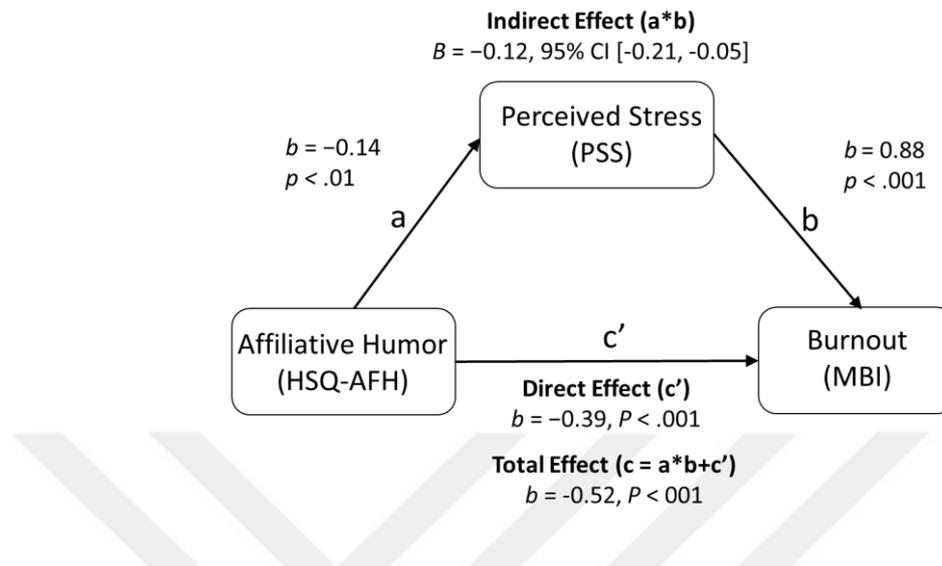


Figure 5

Mediating Role of Perceived Stress on the Relationship between Affiliative Humor and Burnout

**Figure 6**

Mediating Role of Perceived Stress on the Relationship between Aggressive Humor and Burnout

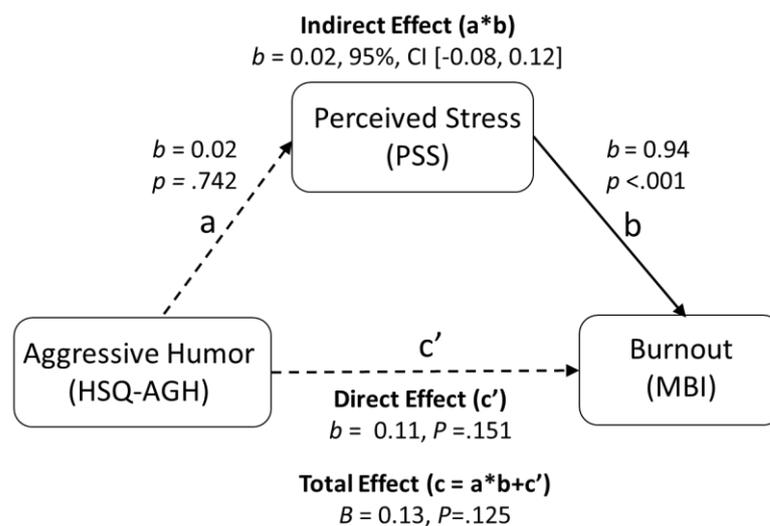
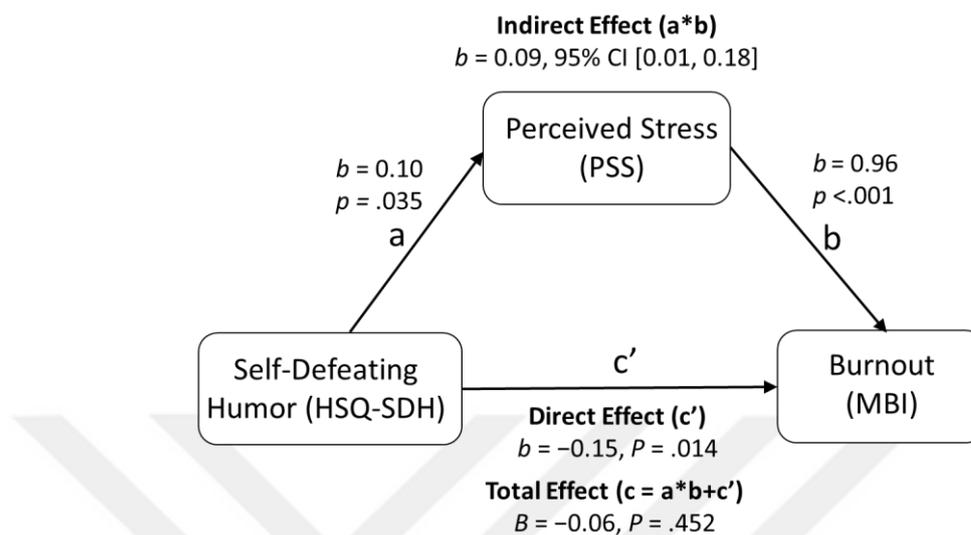


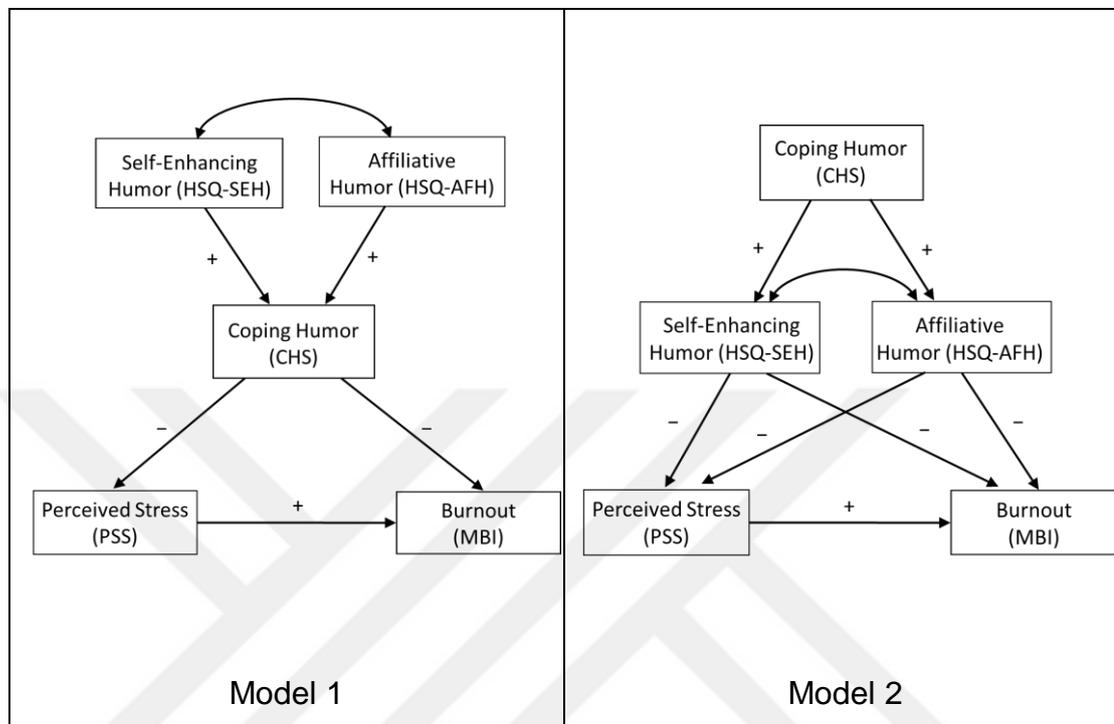
Figure 7

Mediating Role of Perceived Stress on the Relationship between Self-Defeating Humor and Burnout



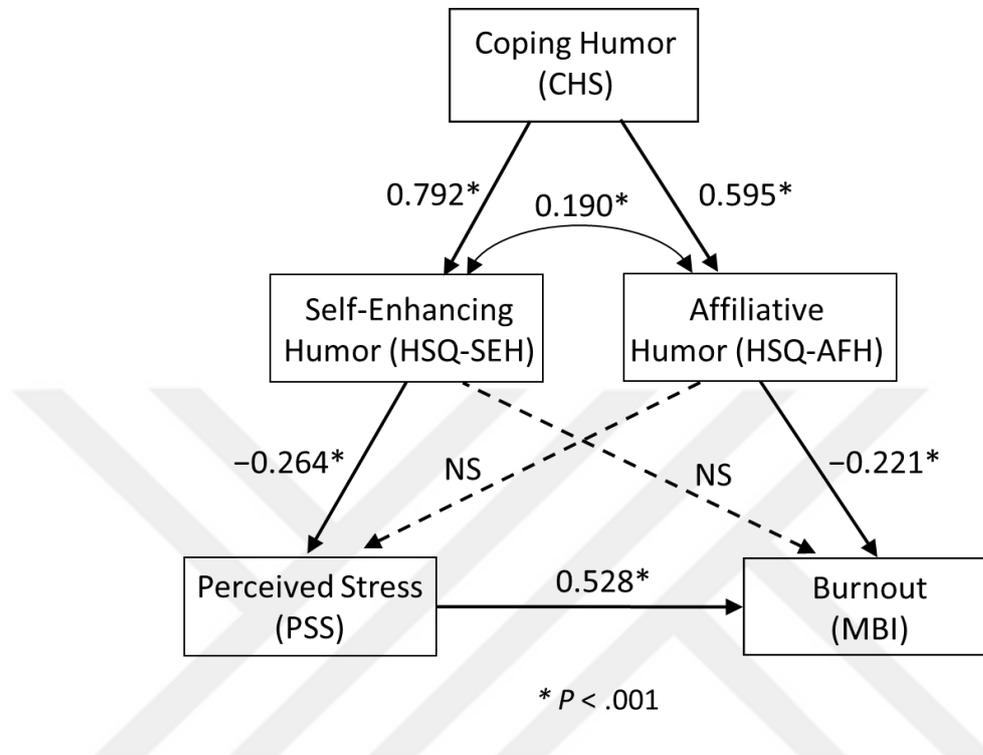
4.5 Constructing an Overall Model

Given the results of mediation analyses, an alternative overall model that combines five variables (i.e., coping humor, self-enhancing humor style, affiliative humor style, perceived stress, and burnout) was explored, instead of the initial 3-variable mediation models. Two maladaptive humor styles were not included in the analysis because they were not contributors to reducing perceived stress and burnout. The Path Analysis part of Structural Equation Modeling (SEM) is one way to establish the causal chain between the variables. Two versions of the 5-variable model (See Figure 8) were tested using this analysis. Model 1 hypothesizes a sense of humor as a mediator, while Model 2 considers self-enhancing humor and affiliative humor as mediators. As a result, Model 2 (See Figure 9) turned out to be a better model with good fit measures (i.e., the non-significant Chi-square test and better comparative fit index and standardized root-mean-square residual values). The model indicates that the relationship between coping with humor and burnout was not direct. Adaptive humor styles play an important mediator role between coping with humor and burnout. This result was in line with the hypothesis about humor styles (Hypothesis 4).

Figure 8*Alternative 5-variable Models Tested***Table 6***Fit Statistics for Alternative Models*

Model	<i>df</i>	χ^2 ($N = 406$)	CFI	SRMSR
1	4	29.081*	.97	.049
2	2	0.865	1.00	.008

Note. CFI = comparative fit index; SRMSR = Standardized Root-Mean-Square Residual (SRMSR).
* $p < .001$

Figure 9*Standardized Coefficients for Model 2*

According to Model 2, those with higher sense of humor tend to use adaptive humor styles more. Among these two positive humor styles, those who use self-enhancing humor more are more likely to perceive less stress, while those with affiliative humor style tend to experience less burnout. While self-enhancing humor significantly reduces perceived stress, but not burnout, affiliative humor more directly reduces burnout, not perceived stress.

5. DISCUSSION

5.1 Implications of the Findings

The present study aimed to investigate the relationship between perceived stress, burnout, coping humor, and humor styles among research assistants. The findings provide valuable insights into the potential mechanisms and processes underlying these associations.

Initial correlational analyses showed that perceived stress was found to be positively associated with burnout among research assistants, confirming previous research in the field (e.g., Hendrix et al., 2000; Teles et al., 2020). This suggests that high levels of stress contribute to increased burnout in this occupational group. Moreover, coping with humor was negatively correlated with perceived stress as well as burnout among research assistants. Both self-enhancing and affiliative humor styles were negatively correlated with perceived stress as well as burnout. Thus, the more use of humor in coping and specifically the use of positive humor styles were associated with lower levels of perceived stress and burnout. These findings align with Tümkaya's (2007) research with Turkish academics that demonstrated the negative correlations between burnout (MBI subscores) and coping humor (CHS), and also the negative correlations between burnout (MBI subscores) and adaptive humor styles (affiliative and self-enhancing humor of HSQ). On the other hand, the present study found that maladaptive humor was not associated with lower perceived stress or burnout. Aggressive humor had no correlation with perceived stress or burnout. Self-defeating humor also had no correlation with burnout, while it was positively correlated with perceived stress, as in Richard and Kruger's (2017) finding.

However, the moderation analysis showed that coping humor did not moderate the relationship between perceived stress and burnout. While this result was consistent with no-moderation findings in the literature (Anderson & Arnoult, 1989; Healy & McKay, 2000; Porterfield, 1987; Safranek & Schill, 1982; Svebak et al., 2004), it was inconsistent with other findings that did demonstrate moderation (e.g., Abel, 1998; Martin & Lefcourt, 1983; Sliter et al., 2014; Wallace et al., 2010). Beginning with Martin and Lefcourt's (1983) classic research, with some exceptions (e.g., Abel, 1998), the majority of studies that demonstrated the moderator role of humor looked at the

relationship between stressors (i.e., stress-causing events) and psychological/physical outcomes. Furthermore, some studies that failed to find the moderation effect of humor assessed stress with a self-report scale, in other words, they measured a kind of “perceived” stress (e.g., Healy & McKay, 2000), not actual stress symptoms. For example, Sliter et al. (2014) found the moderating effect of humor on the relationship between the number of traumatic events and burnout. The reason why the present study did not find the moderation effect of humor may be that it looked at the relationship between perceived stress and burnout, not the relationship between the stressor and burnout. By facilitating a positive outlook on the interpretation of stress-causing events/situations (cognitive appraisal), humor can moderate the relationship between a stressor and perceived stress. Thus, it can be hypothesized that moderation is most likely to occur before the perceived stress, somewhere between a stressful event (stressor) and the perception of stress. Another important point is that CHS does not measure one’s actual use of humor when coping with stressors, but only measures the propensity to use a sense of humor in stress. So, in order to study the moderating role of humor in a stress-causing event, researchers need to design an experiment where actual coping with stressors with humor can be observed and humor-related positive cognitive appraisal can be assessed.

The additional series of mediation analyses found that perceived stress mediated the relationship between humor (coping humor, self-enhancing humor, and affiliative humor respectively) and burnout, in the same way as Dyck and Holtzman’s (2013) finding that perceived interpersonal support mediated the relationship between positive humor styles and wellbeing. Thus, it is possible to conclude that cognitive appraisal of the situation and the resulting perception played a significant role.

5.2 The Proposed Model

Although the initial correlational analysis showed that both self-enhancing humor and affiliative humor were negatively correlated with perceived stress and burnout, the results of a path analysis revealed a model where coping with humor influenced perceived stress via self-enhancing humor while burnout levels via affiliative humor styles. Thus, the self-enhancing and affiliative humor styles were also identified

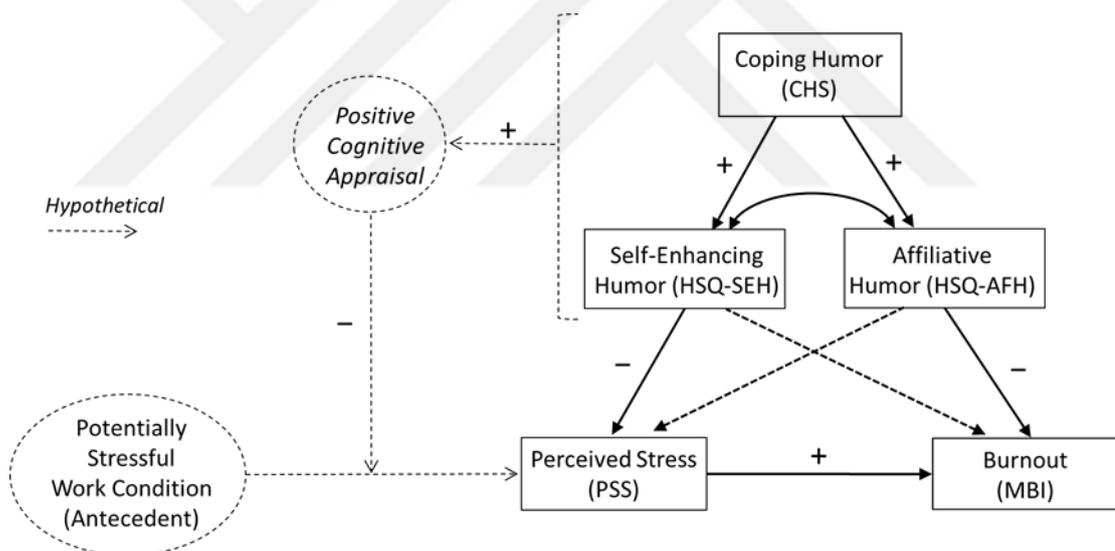
as mediators of the model, which were initiated by the sense of humor. However, self-enhancing humor better predicts perceived stress, while affiliative humor better predicts burnout. The present findings are consistent with prior research showing that perceived stress was negatively correlated with self-enhancing humor style, but not affiliative humor (Richards & Kruger, 2017). Self-enhancing humor may be more effective in predicting perceived stress due to its function of positive cognitive appraisal of the self and the situation. This humor style involves the ability to reframe stressful situations in a more optimistic manner, which might aid individuals in perceiving challenges as more manageable and less daunting. Consequently, individuals who utilize self-enhancing humor may encounter reduced levels of perceived stress, as they are inclined to interpret stressors as less harmful and more within their control. On the other hand, affiliative humor predominantly revolves around fostering social bonds and connecting with others through humor. Consequently, its direct impact on individual stress perception might be less noticeable compared to the role of self-enhancing humor. It is plausible that affiliative humor contributes to stress reduction indirectly by enhancing social support networks. Why affiliative humor is more effective in predicting burnout may be because of its ability to foster a sense of camaraderie and emotional support among individuals. Burnout occurs in an interpersonal work environment. When affiliative humor is embraced within the work environment, it might create a positive atmosphere where employees feel connected and understood. As individuals engage in lighthearted interactions and shared laughter, they might experience emotional replenishment and a renewed sense of vitality. This, in turn, may help individuals navigate the challenges of their roles without experiencing emotional exhaustion which is a key facet of burnout. These nuanced findings underscore the multifaceted nature of humor and its varying effects on psychological well-being.

The results of the path analysis can be interpreted in line with the cognitive appraisal theory of stress, which posits that individuals' appraisal of stressors influences their emotional and behavioral responses. In this study, coping humor and adaptive humor styles were found to influence both perceived stress and burnout levels. This supports the notion that individuals' use of humor as a coping mechanism can shape their appraisal of stress and ultimately impact their experience of burnout. According to this interpretation, a final model was proposed and presented in Figure 10. This model assumes that research assistants' work conditions act as stressors, involving potentially

stress-inducing events. The model proposes that individuals who have a propensity to cope with humor can be predicted to use adaptive humor styles, of which self-enhancing humor leads to the lowering of perceived stress, while affiliative humor leads to reduced burnout. The intensity of the stress perceived by them changes relative to the meaning they ascribe to events through cognitive appraisal. Although the present study did not involve the observation of actual stressors and coping strategies exhibited by the research assistants, it was hypothesized that positive cognitive appraisal done with humor moderates the relationship between the stressor and the perceived stress. This hypothetical path (dotted lines) is to be tested with experimental research.

Figure 10

The Relationship between Adaptive Humor Styles, Coping Humor, Perceived Stress, and Burnout



5.3 Significance of the Study and Suggestions for Future Research

Overall, the study contributes to our theoretical understanding of stress, burnout, and the role of humor. Theoretically, this study aligns with Lazarus and Folkman's (1984) cognitive appraisal theory by highlighting the importance of individuals' perception and interpretation of stressors. It suggests how a well-developed sense of

humor can influence the cognitive appraisal process in a more positive way, leading to lower perceived stress and reduced burnout among research assistants. The focus on humor as a coping mechanism for research assistants is unique and adds to the existing literature on stress management and well-being.

The research highlighted the importance of adaptive humor styles and coping humor as protective factors against burnout. Research assistants with a tendency to use a sense of humor are capable of finding amusement even in challenging circumstances and maintaining a positive perspective and are thus inclined to experience less burnout. By examining the relationship between coping humor, adaptive humor styles, perceived stress, and burnout, the overall model helps to understand the underlying processes and mechanisms by which humor may impact stress perception and burnout experience.

These findings provide valuable insights for developing interventions and strategies to promote well-being and prevent burnout in clinical psychology. For example, providing a humor-tolerant, positive social environment in academia is one thing. Raising awareness about the impact of stress and burnout on research assistants and the potential benefits of humor and coping strategies is also crucial. Interventions aimed at fostering adaptive humor styles, such as self-enhancing humor and affiliative humor, could be implemented to promote well-being among research assistants. Humor training programs that emphasize positive reframing, social support, and laughter exercises may enhance individuals' ability to utilize humor as a coping mechanism. Clinical practitioners could incorporate coping humor interventions, such as humor-based stress management programs or psychoeducation sessions, to help individuals develop adaptive humor styles and enhance their coping mechanisms. These clinical implications should be context-specific and tailored to meet the unique needs of research assistants, with collaboration between clinicians, human resources professionals, and organizational stakeholders to integrate them effectively.

As for the provision of a humor-tolerant environment, one thing that should be considered is the management's approach. In cases where the management falls short of embracing humor in the workplace adequately, there could be significant consequences for employees who rely on positive humor styles to maintain a positive outlook and emotional well-being when dealing with stress in the workplace. They could find their strategies hindered in an environment where humor is not embraced or

even prohibited by the management. A lack of recognition and encouragement from management might undermine their ability to maintain a positive outlook, resulting in increased stress and potentially magnified burnout levels. Furthermore, as humor is essentially social in nature (Martin & Ford, 2018), the absence of a warm interpersonal relationship and social support from the management can result in coping with humor becoming a less effective strategy. Those who tend to use humor as a means of managing work-related stressors become deprived of means to navigate challenging situations, potentially intensifying their sense of isolation and overall experience of burnout. In essence, when management fails to integrate humor effectively in the workplace, those employees cannot utilize their resources to alleviate stress and burnout. This would make the work environment even more challenging for employees already grappling with stress and burnout.

While this study provides valuable insights, it is important to consider its limitations and potential sources of error. Methodologically, the study did not measure potential “stressors” specific to research assistant roles. The reason for this was the lack of a valid and reliable scale measuring stressors for university staff in the literature. Considering a set of stressors specific to research assistants’ work environment could provide a more comprehensive understanding of their stress and burnout. Moreover, in the analysis of the interplay between multiple variables, which were measured by the PSS, the CHS, the MBI, and the HSQ, the research was confronted with the challenge of managing a substantial number of scales and their subscales and the pragmatic need to strike a balance between comprehensive investigation and the difficulties posed by the complexity of the inter-variable analyses. Although the potential insights that could be gained from separately examining all subscales had been acknowledged, the scope of the present study required the researcher to prioritize a more streamlined assessment approach. In order to simplify the analyses and focus on the interrelationship between coping humor, humor styles, perceived stress, and burnout within the scope of the research, a decision was made to use a total score of MBI as a single measure of burnout instead of looking into three dimensions (subscales) of MBI (i.e., emotional exhaustion, depersonalization, and personal accomplishment) separately. As the purpose of this research was to investigate the impact of coping humor and humor styles on perceived stress and burnout, this decision was satisfactory. However, given the multifaceted phenomenon of burnout, it would be of great interest for future research to investigate

the complicated interplay and differences between the three dimensions of burnout in association with the other variables under examination. Examining the subscales of MBI separately can potentially reveal patterns and associations that may not be apparent when considering the total score, revealing the unique dynamics among coping humor and humor styles and different aspects of burnout.

Nevertheless, this study has its own strengths and contributions. Adopting a total score approach to the measurement of burnout provides a holistic view of burnout by considering it as an overarching construct rather than breaking it down into separate components. The total score approach can be beneficial for a general assessment of the overall level of burnout among the participants. In addition to this, calculating and interpreting a single total score for burnout can simplify the analysis process and also allow easier communication of findings. Moreover, the total score approach alleviates concerns related to overfitting. Overfitting can occur when a model becomes too tailored to the noise and random fluctuations in the available data, capturing irrelevant details that do not generalize well to new data. Analyzing each subscale individually introduces an excessive number of variables into models, thus increasing the risk of overfitting and poor generalization. In the present research, the use of a total MBI score actually yielded a less complex, more meaningful model while reducing the likelihood of overfitting.

One of the important contributions of this research is that it documented the degrees of stress and burnout experienced by research assistants at universities in Turkey. While previous research has explored stress and burnout in various professions, this study specifically focused on research assistants, a group that has received limited attention in the literature. The study emphasizes the importance of assessing stress and burnout levels among research assistants to identify those at risk and facilitate early intervention strategies. After sharing this questionnaire with research assistants, many of them expressed how much this research meant to them, and the research made them feel “seen and recognized.” A considerable number of research assistants requested referrals for psychological support. The average PSS scores in the literature were checked to see whether the level of stress among the research assistants in the present study was high or not. Cohen et al.’s (1983) original scale-development study of the 14-item PSS reported mean scores of 23.18 for the complete sample, 23.67 in the student sample, and 25.0 in the smoking-cessation sample. Eskin et al.’s (2013) PSS adaptation

study in Turkey, which was conducted with a student group, revealed an average score of 28.1. In comparison, the mean PSS score of research assistants in the present study was 30.4. This indicates that the research assistants who participated in the present study perceived a higher level of stress than average. As for the MBI score, Tmkaya's (2007) study in Turkish universities involved subsamples of 51 professors, 15 associate professors, 66 assistant professors, 53 lecturers, and 98 research assistants. For all three dimensions of burnout, the research assistants' scores were the highest compared to the other groups' scores. Tmkaya reported the research assistants' mean scores as being 19.34 for emotional exhaustion, 5.39 for depersonalization, and 15.73 for personal accomplishment, which makes a total mean MBI score of 40.46. In comparison, the research assistant sample in the present study exhibited a much higher total MBI score of 55.8. In conclusion, the research assistant sample of the present study was highly stressed and burned out. Another strength of the research is the relatively large sample ($N = 406$) representing research assistants from 50 different universities. This diverse sample increased generalizability and enhanced the external validity of the research findings.

Further research could adopt a cross-sectional design, including diverse occupational groups and work settings, to compare and validate the findings. Conducting cross-sectional research would provide a better understanding of the relationships between perceived stress, coping humor, and humor styles. Another methodological suggestion is the use of creative experimental designs that allow causal inferences between experimentally-induced stressors, the actual use of humor, perceived stress, and burnout. While this study relied on self-report measures, future research could incorporate objective measures of stress, such as physiological indicators (e.g., cortisol levels) or behavioral markers (e.g., performance measures). Objective measures would provide a more comprehensive and multi-dimensional assessment of stress and its impact on burnout.

Finally, future research can also focus on developing a specific intervention program targeted for research assistants and studying its effectiveness. The program could promote coping humor, adaptive humor styles, and stress management skills among research assistants. Randomized controlled trials or quasi-experimental designs could assess the effectiveness of these interventions in reducing burnout, improving well-being, and enhancing job satisfaction. By addressing these suggestions in future

studies, researchers can advance the knowledge in the field of stress, burnout, coping humor, and humor styles and extend the findings to inform evidence-based interventions and practices aimed at promoting well-being in the workplace.



REFERENCES

- Abel, M. H. (1998). Interaction of humor and gender in moderating relationships between stress and outcomes. *The Journal of Psychology, 132*(3), 267-276. <https://doi.org/10.1080/00223989809599166>
- Allen, R.J. (1984). *Human stress: Its nature and control*. New York: MacMillan Publishing Company.
- Allport, G.W. (1954). *The nature of prejudice. On the nature of prejudice*. New York: Addison-Wesley.
- Amer, S. A., Elotla, S. F., Ameen, A. E., Shah, J., & Fouad, A. M. (2022). Occupational burnout and productivity loss: A cross-sectional study among academic university staff. *Frontiers in Public Health, 10*, 861674. <https://doi.org/10.3389/fpubh.2022.861674>
- Anderson, C. A., & Arnoult, L. H. (1989). An examination of perceived control, humor, irrational beliefs, and positive stress as moderators of the relation between negative stress and health. *Basic and Applied Social Psychology, 10*(2), 101-117. https://doi.org/10.1207/s15324834basp1002_1
- Avtgis, T. A., & Taber, K. R. (2006). "I laughed so hard my side hurts, or is that an ulcer?" The influence of work humor on job stress, job satisfaction, and burnout among print media employees. *Communication Research Reports, 23*(1), 13-18. <https://doi.org/10.1080/17464090500535814>
- Baltaş, A. & Baltaş, Z. (2002). *Stres ve başa çıkma yolları* (21. Basım). İstanbul: Remzi Kitap Evi.
- Bargai, N., Ben-Shakhar, G., & Shalev, A. Y. (2007). Posttraumatic stress disorder and depression in battered women: The mediating role of learned helplessness. *Journal of Family Violence, 22*, 267-275. <https://doi.org/10.1007/s10896-007-9078-y>
- Barkhuizen, N., Rothmann, S., & Van De Vijver, F. J. (2014). Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress and Health, 30*(4), 322-332. <https://doi.org/10.1002/smi.2520>

- Bijari, B., & Abassi, A. (2016). Prevalence of burnout syndrome and associated factors among rural health workers (Behvarzes) in South Khorasan. *Iranian Red Crescent Medical Journal*, 18(10). <https://doi.org/10.5812/ircmj.25390>
- Blanchard, A. L., Stewart, O. J., Cann, A., & Follman, L. (2014). Making sense of humor at work. *The Psychologist-Manager Journal*, 17(1), 49. <https://doi.org/10.1037/mgr0000011>
- Chaby, L. E., Cavigelli, S. A., Hirrlinger, A. M., Caruso, M. J., & Braithwaite, V. A. (2015). Chronic unpredictable stress during adolescence causes long-term anxiety. *Behavioural Brain Research*, 278, 492-495. <https://doi.org/10.1016/j.bbr.2014.09.003>
- Cohen S, Kamarck T, Mermelstein R (1983) A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396. <https://doi.org/10.2307/2136404>
- Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2007). Psychological stress and disease. *Jama*, 298(14), 1685-1687. <https://doi.org/10.1001/jama.298.14.1685>
- Cox, T. (1993). *Stress research and stress management: Putting theory to work*. Sudbury: Hse Books.
- Crosswell, A. D., & Lockwood, K. G. (2020). Best practices for stress measurement: How to measure psychological stress in health research. *Health Psychology Open*, 7(2), 2055102920933072. <https://doi.org/10.1177/2055102920933072>
- Cüceloğlu, D. (1992). *İnsan davranışı*. İstanbul: Remzi Kitabevi.
- Dyck, K. T., & Holtzman, S. (2013). Understanding humor styles and well-being: The importance of social relationships and gender. *Personality and Individual Differences*, 55(1), 53-58. <https://doi.org/10.1016/j.paid.2013.01.02>
- Dymecka, J., Gerymski, R., Iszczuk, A., & Bidzan, M. (2021). Fear of coronavirus, stress and fear of childbirth in Polish pregnant women during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(24), 13111. <https://doi.org/10.3390/ijerph182413111>
- Ergin, C. (1992). Doktor ve hemşirelerde tükenmişlik ve Maslach Tükenmişlik Ölçeğinin uyarlanması, VII. Ulusal Psikoloji Kongresi Bilimsel Çalışmaları, 22-25 Eylül 1992, Hacettepe Üniversitesi, VII. Ulusal Psikoloji Kongresi

Düzenleme Kurulu ve Türk Psikologlar Derneği Yayını, Ankara.

- Erickson, R. J., & Grove, W. J. (2008). Why emotions matter: Age, agitation, and burnout among registered nurses. *Online Journal of Issues in Nursing*, 13(1).
- Eskin, M., Harlak, H., Demirkiran, F., & Dereboy, Ç. (2013). The adaptation of the perceived stress scale into Turkish: A reliability and validity analysis. *New Symposium Journal*, 51(3), 132-140.
- Ford, T. E., Ferguson, M. A., Brooks, J. L., & Hagadone, K. M. (2004). Coping sense of humor reduces effects of stereotype threat on women's math performance. *Personality and Social Psychology Bulletin*, 30(5), 643-653. <https://doi.org/10.1177/0146167203262851>
- Ford, T. E., Ford, B. L., Boxer, C. F., & Armstrong, J. (2012). Effect of humor on state anxiety and math performance. *Humor*, 25(1), 59-74. <https://doi.org/10.1515/humor-2012-0004>
- Ford, T. E., Lappi, S. K., O'Connor, E. C., & Banos, N. C. (2017). Manipulating humor styles: Engaging in self-enhancing humor reduces state anxiety. *Humor*, 30(2), 169-191. <https://doi.org/10.1515/humor-2016-0113>
- Freud, S. (1905). *Jokes and their relation to the unconscious*. New York: Norton.
- Freud, S. (1926/1959). *Inhibitions, symptoms and anxiety*. New York, NY: W. W. Norton & Company.
- Freud, S. (1928). Humor. *International Journal of Psychoanalysis*, 9, 1-6.
- Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159-165. <https://doi.org/10.1111/j.1540-4560.1974.tb00706.x>
- Friesen, D., & Sarros, J. C. (1989). Sources of burnout among educators. *Journal of Organizational Behavior*, 179-188.
- Gasperin, D., Netuveli, G., Dias-da-Costa, J. S., & Pattussi, M. P. (2009). Effect of psychological stress on blood pressure increase: A meta-analysis of cohort studies. *Cadernos de Saúde Pública*, 25(4), 715-726.
- George, D., & Mallery, P. (2010). *SPSS for Windows step by step: A simple guide and reference, 17.0 update*. Allyn & Bacon.

- Greenglass, E. R., Burke, R. J., & Ondrack, M. (1990). A gender-role perspective of coping and burnout. *Applied Psychology, 39*(1), 5-27.
<https://doi.org/10.1111/j.1464-0597.1990.tb01035.x>
- Gupta, N., & Beehr, T. A. (1979). Job stress and employee behaviors. *Organizational Behavior and Human Performance, 23*(3), 373-387.
[https://doi.org/10.1016/0030-5073\(79\)90004-7](https://doi.org/10.1016/0030-5073(79)90004-7)
- Healy, C. M., & McKay, M. F. (2000). Nursing stress: The effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of Advanced Nursing, 31*(3), 681-688. <https://doi.org/10.1046/j.1365-2648.2000.01323.x>
- Hendrix, A. E., Acevedo, E. O., & Hebert, E. (2000). An examination of stress and burnout in certified athletic trainers at Division IA universities. *Journal of Athletic Training, 35*(2), 139.
- Ho, S. K. (2017). The relationship between teacher stress and burnout in Hong Kong: Positive humour and gender as moderators. *Educational Psychology, 37*(3), 272-286. <https://doi.org/10.1080/01443410.2015.1120859>
- Horowitz, M. J. (1975). Intrusive and repetitive thoughts after experimental stress: A summary. *Archives of General Psychiatry, 32*(11), 1457-1463.
<https://doi.org/10.1001/archpsyc.1975.01760290125015>
- Hwang, H., Hur, W. M., & Shin, Y. (2021). Emotional exhaustion among the South Korean workforce before and after COVID-19. *Psychology and Psychotherapy: Theory, Research and Practice, 94*(2), 371-381.
<https://doi.org/10.1111/papt.12309>
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology, 20*(2), 178-187. <https://doi.org/10.1108/02683940510579803>
- Kaçmaz, N. (2005). Tükenmişlik (burnout) sendromu. *Journal of Istanbul Faculty of Medicine, 68*(1), 29-32.
- Kane, P. P. (2009). Stress causing psychosomatic illness among nurses. *Indian Journal of Occupational and Environmental Medicine, 13*(1), 28.
<https://doi.org/10.4103/0019-5278.50721>

- Khawaja, K. F., Sarfraz, M., Rashid, M., & Rashid, M. (2021). How is COVID-19 pandemic causing employee withdrawal behavior in the hospitality industry? An empirical investigation. *Journal of Hospitality and Tourism Insights*, 5(3), 687-706. <https://doi.org/10.1108/JHTI-01-2021-0002>
- Kim, I. B., Lee, J. H., & Park, S. C. (2022). The relationship between stress, inflammation, and depression. *Biomedicines*, 10(8), 1929. <https://doi.org/10.3390/biomedicines10081929>
- Kivimäki, M., & Steptoe, A. (2018). Effects of stress on the development and progression of cardiovascular disease. *Nature Reviews Cardiology*, 15(4), 215-229. <https://doi.org/10.1038/nrcardio.2017.189>
- Kugler, L., & Kuhbandner, C. (2015). That's not funny! – But it should be: Effects of humorous emotion regulation on emotional experience and memory. *Frontiers in Psychology*, 6, 1296. <https://doi.org/10.3389/fpsyg.2015.01296>
- Kuiper, N. A., Martin, R. A., & Olinger, L. J. (1993). Coping humour, stress, and cognitive appraisals. *Canadian Journal of Behavioural Science*, 25(1), 81-96. <https://doi.org/10.1037/h0078791>
- Larkin, K. T. (2008). *Stress and hypertension: Examining the relation between psychological stress and high blood pressure*. Yale University Press.
- Lazarus, R. S. (1993). From Psychological Stress to the Emotions: A History of Changing Outlooks. *Annual Review of Psychology*, 44(1), 1-22. <https://doi.org/10.1146/annurev.ps.44.020193.000245>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and Reason. Making Sense of Our Emotions*. Oxford University Press.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9(4), 297-308. <https://doi.org/10.1002/job.4030090402>
- Levine, G. N. (2022). Psychological stress and heart disease: Fact or folklore? *The American Journal of Medicine*, 135(6), 688-696. <https://doi.org/10.1016/j.amjmed.2022.01.053>

- Li, H., Yuan, B., Meng, Q., & Kawachi, I. (2019). Contextual factors associated with burnout among Chinese primary care providers: A multilevel analysis. *International Journal of Environmental Research and Public Health*, 16(19), 3555. <https://doi.org/10.3390/ijerph16193555>
- Martin, R. A., & Ford, T. (2018). *The psychology of humor: An integrative approach*. Burlington, MA: Elsevier Academic Press
- Martin, R. A., & Kuiper, N. A. (1999). Daily occurrence of laughter: Relationships with age, gender, and Type A personality. *Humor: International Journal of Humor Research*, 12(4), 355–384. <https://doi.org/10.1515/humr.1999.12.4.355>
- Martin, R. A., & Lefcourt, H. M. (1983). Sense of humor as a moderator of the relation between stressors and moods. *Journal of Personality and Social Psychology*, 45(6), 1313–1324. <https://doi.org/10.1037/0022-3514.45.6.1313>
- Martin, R. A., Kuiper, N. A., Olinger, L. J., & Dance, K. A. (1993). Humor, coping with stress, self-concept, and psychological well-being. *Humor: International Journal of Humor Research*, 6, 89-104. <https://doi.org/10.1515/humr.1993.6.1.89>
- Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality*, 37(1), 48-75. [https://doi.org/10.1016/S0092-6566\(02\)00534-2](https://doi.org/10.1016/S0092-6566(02)00534-2)
- Maslach, C. & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(2), 99 -113. <https://doi.org/10.1002/job.4030020205>
- Maslach, C. (1978). The client role in staff burn-out. *Journal of Social Issues*, 34(4), 111-124. <https://doi.org/10.1111/j.1540-4560.1978.tb00778.x>
- Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, 12(5), 189-192. <https://doi.org/10.1111/1467-8721.01258>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- McGrath, J.E. (1976). Stress and behavior in organizations. *Handbook of industrial*

and organizational psychology. Chicago: Rand McNally

Melchior, M., Caspi, A., Milne, B. J., Danese, A., Poulton, R., & Moffitt, T. E. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychological Medicine*, 37(8), 1119-1129.

<https://doi.org/10.1017/s0033291707000414>

Morgan, J., Smith, R., & Singh, A. (2019). Exploring the role of humor in the management of existential anxiety. *Humor*, 32(3), 433-448.

<https://doi.org/10.1515/humor-2017-0063>

Murat, M. (2003). Üniversite öğretim elemanlarında tükenmişlik. *Turkish Psychological Counseling and Guidance Journal*, 2(19), 25-34.

Nash, J. M., & Theborge, R. W. (2006). Understanding psychological stress, its biological processes, and impact on primary headache. *Headache: The Journal of Head and Face Pain*, 46(9), 1377-1386. <https://doi.org/10.1111/j.1526-4610.2006.00580.x>

Newman, M. G., & Stone, A. A. (1996). Does humor moderate the effects of experimentally-induced stress? *Annals of Behavioral Medicine*, 18(2), 101-109. <https://doi.org/10.1007/BF02909582>

Ofoegbu, F., & Nwadiani, M. (2006). Level of perceived stress among lectures in Nigerian universities. *Journal of Instructional Psychology*, 33(1).

Ogbonna, E., & Harris, L. C. (2004). Work intensification and emotional labour among UK university lecturers: An exploratory study. *Organization Studies*, 25(7), 1185-1203. <https://doi.org/10.1177/0170840604046315>

Oktug, Z. (2017). The moderating role of employees' humor styles on the relationship between job stress and emotional exhaustion. *International Business Research*, 10(4), 131-138. <https://doi.org/10.5539/ibr.v10n4p131>

Olson, N., Oberhoffer-Fritz, R., Reiner, B., & Schulz, T. (2023). Study related factors associated with study engagement and student burnout among German university students. *Frontiers in Public Health*, 11.

<https://doi.org/10.3389/fpubh.2023.1168264>

- Padilla, M. A., & Thompson, J. N. (2016). Burning out faculty at doctoral research universities. *Stress and Health, 32*(5), 551-558.
<https://doi.org/10.1002/smi.2661>
- Pantenburg, B., Lupp, M., König, H. H., & Riedel-Heller, S. G. (2016). Burnout among young physicians and its association with physicians' wishes to leave: Results of a survey in Saxony, Germany. *Journal of Occupational Medicine and Toxicology, 11*(1), 1-10. <https://doi.org/10.1186/s12995-016-0091-z>
- Pines, A., & Aronson, E. (1988). *Career burnout: Causes and cures*. New York: The Free Press.
- Plester, B. (2009). Crossing the line: Boundaries of workplace humour and fun. *Employee Relations, 31*(6), 584-599.
<https://doi.org/10.1108/01425450910991749>
- Porterfield, A. L. (1987). Does sense of humor moderate the impact of life stress on psychological and physical well-being? *Journal of Research in Personality, 21*(3), 306-317. [https://doi.org/10.1016/0092-6566\(87\)90013-4](https://doi.org/10.1016/0092-6566(87)90013-4)
- Provine, R. R., & Fischer, K. R. (1989). Laughing, smiling, and talking: Relation to sleeping and social context in humans. *Ethology, 83*(4), 295-305.
- Renzaho, A. M., Houn, B., Oldroyd, J., Nicholson, J. M., D'Esposito, F., & Oldenburg, B. (2014). Stressful life events and the onset of chronic diseases among Australian adults: Findings from a longitudinal survey. *The European Journal of Public Health, 24*(1), 57-62. <https://doi.org/10.1093/eurpub/ckt007>
- Richards, K., & Kruger, G. (2017). Humor styles as moderators in the relationship between perceived stress and physical health. *Sage Open, 7*(2), 2158244017711485. <https://doi.org/10.1177/21582440177114>
- Romero, E. J., & Arendt, L. A. (2011). Variable effects of humor styles on organizational outcomes. *Psychological Reports, 108*(2), 649-659.
<https://doi.org/10.2466/07.17.20.21.pr0.108.2.649-659>
- Russell, D. W., Altmaier, E., & Van Velzen, D. (1987). Job-related stress, social support, and burnout among classroom teachers. *Journal of Applied Psychology, 72*(2), 269. <https://doi.org/10.1037/0021-9010.72.2.269>

- Safranek, R., & Schill, T. (1982). Coping with stress: Does humor help. *Psychological Reports*, 51(1), 222. <https://doi.org/10.2466/pr0.1982.51.1.222>
- Salami, S. O. (2011). Job stress and burnout among lecturers: Personality and social support as moderators. *Asian Social Science*, 7(5), 110. <https://doi.org/10.5539/ass.v7n5p110>
- Salyers, M. P., Bonfils, K. A., Luther, L., Firmin, R. L., White, D. A., Adams, E. L., & Rollins, A. L. (2017). The relationship between professional burnout and quality and safety in healthcare: A meta-analysis. *Journal of General Internal Medicine*, 32, 475-482. <https://doi.org/10.1007/s11606-016-3886-9>
- Sandström, A., Peterson, J., Sandström, E., Lundberg, M., Nystrom, I. L. R., Nyberg, L., & Olsson, T. (2011). Cognitive deficits in relation to personality type and hypothalamic-pituitary-adrenal (HPA) axis dysfunction in women with stress-related exhaustion. *Scandinavian Journal of Psychology*, 52(1), 71-82. <https://doi.org/10.1111/j.1467-9450.2010.00844.x>
- Schadenhofer, P., Kundi, M., Abrahamian, H., Stummer, H., & Kautzky-Willer, A. (2018). Influence of gender, working field and psychosocial factors on the vulnerability for burnout in mental hospital staff: Results of an Austrian cross-sectional study. *Scandinavian Journal of Caring Sciences*, 32(1), 335-345. <https://doi.org/10.1111/scs.12467>
- Schramm, S. H., Moebus, S., Lehmann, N., Galli, U., Obermann, M., Bock, E., ... & Katsarava, Z. (2015). The association between stress and headache: A longitudinal population-based study. *Cephalalgia*, 35(10), 853-863. <https://doi.org/10.1177/03331024145630>
- Selye, H. (1976) *The stress of life* (2nd ed.). McGraw-Hill.
- Sliter, M., Kale, A., & Yuan, Z. (2014). Is humor the best medicine? The buffering effect of coping humor on traumatic stressors in firefighters. *Journal of Organizational Behavior*, 35(2), 257-272. <https://doi.org/10.1002/job.1868>
- Spittle, M., Kremer, P., & Sullivan, S. (2015). Burnout in secondary school physical education teaching. *Facta Universitatis, Series: Physical Education and Sport*, 33-43.

- Svebak, S., Gotestam, K. G., & Jensen, E. N. (2004). The significance of sense of humor, life regard, and stressor for bodily complaints among high school students. *Humor, 17*, 67–83. <https://doi.org/10.1515/humr.2004.008>
- Taylor, S.E. (1986). *Health psychology* (6th edition). New York: McGraw-Hill, Inc.
- Teles, R., Valle, A., Rodríguez, S., Piñeiro, I., & Regueiro, B. (2020). Perceived stress and indicators of burnout in teachers at Portuguese higher education institutions (HEI). *International Journal of Environmental Research and Public Health, 17*(9), 3248. <https://doi.org/10.3390/ijerph17093248>
- Tucker, R. P., Judah, M. R., O’Keefe, V. M., Mills, A. C., Lechner, W. V., Davidson, C. L., ... & Wingate, L. R. (2013). Humor styles impact the relationship between symptoms of social anxiety and depression. *Personality and Individual Differences, 55*(7), 823-827. <https://doi.org/10.1016/j.paid.2013.07.008>
- Tümekaya, S. (2007). Burnout and humor relationship among university lecturers. *Humor: International Journal of Humor Research, 20*(1), 73-92. <https://doi.org/10.1515/humor.2007.004>
- Turhan, D., Scheunemann, A., Schnettler, T., Bäumke, L., Thies, D. O., Dresel, M., ... & Grunschel, C. (2023). Temporal development of student burnout symptoms: Sociodemographic differences and linkage to university dropout intentions. *Contemporary Educational Psychology, 73*, 102185. <https://doi.org/10.1016/j.cedpsych.2023.102185>
- Unterbrink, T., Hack, A., Pfeifer, R., Buhl-Grießhaber, V., Müller, U., Wesche, H., ... & Bauer, J. (2007). Burnout and effort–reward-imbalance in a sample of 949 German teachers. *International Archives of Occupational and Environmental Health, 80*, 433-441. <https://doi.org/10.1007/s00420-007-0169-0>
- Wallace, S. L., Lee, J., & Lee, S. M. (2010). Job stress, coping strategies, and burnout among abuse-specific counselors. *Journal of Employment Counseling, 47*(3), 111-122. <https://doi.org/10.1002/j.2161-1920.2010.tb00096.x>
- Wang, L., Wang, H., Shao, S., Jia, G., & Xiang, J. (2020). Job burnout on subjective well-being among Chinese female doctors: The moderating role of perceived

social support. *Frontiers in Psychology*, 11, 435.

<https://doi.org/10.3389/fpsyg.2020.00435>

Watson, J.B., & Rayner, R. (1920). Conditioned emotional reactions. *Journal of Experimental Psychology*. 3(1), 1–14. <https://doi.org/10.1037/h0069608>

Wirtz, P. H., & von Känel, R. (2017). Psychological stress, inflammation, and coronary heart disease. *Current Cardiology Reports*, 19, 1-10.

<https://doi.org/10.1007/s11886-017-0919-x>

Wolff, H. G. (1953). *Stress and disease*. Springfield: Charles C Thomas Publisher.

Yerlikaya, E. E. (2003). *Mizah Tarzları Ölçeğinin uyarlama çalışması* (Yüksek lisans tezi). Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, Adana.

Yerlikaya, E. E. (2009). *Üniversite öğrencilerinin mizah tarzları ile algılanan stres, kaygı ve depresyon düzeyleri arasındaki ilişkinin incelenmesi* (Doktora tezi). Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, Adana.

Yovetich, N. A., Dale, J. A., & Hudak, M. A. (1990). Benefits of humor in reduction of threat-induced anxiety. *Psychological Reports*, 66(1), 51-58.

<https://doi.org/10.2466/pr0.1990.66>

Zarei, E., Ahmadi, F., Sial, M. S., Hwang, J., Thu, P. A., & Usman, S. M. (2019). Prevalence of burnout among primary health care staff and its predictors: A study in Iran. *International Journal of Environmental Research and Public Health*, 16(12), 2249. <https://doi.org/10.3390/ijerph16122249>

Appendix A: The Distribution of Participants by Universities and Faculties

<i>Variables</i>	<i>n</i>	<i>%</i>
<i>Workplace – University</i>		
Altınbaş University	8	2.0
Anadolu University	23	5.7
Ankara University	18	4.4
Atatürk University	15	3.7
Aydın Adnan Menderes University	1	0.2
Bahçeşehir University	10	2.5
Bartın University	1	0.2
Boğaziçi University	23	5.7
Bursa Teknik University	1	0.2
Bursa Uludağ University	13	3.2
Bülent Ecevit University	1	0.2
Çukurova University	2	0.5
Ege University	15	3.7
Gazi University	10	2.5
Gebze Teknik University	33	8.1
Hacettepe University	1	0.2
Işık University	4	1.0
İstanbul Arel University	8	2.0
İstanbul Galata University	1	0.2
İstanbul Gelişim University	8	2.0
İstanbul Kent University	2	0.5
İstanbul Medipol University	14	3.4
İstanbul Okan University	1	0.2
İstanbul Rumeli University	3	0.7
İstanbul Teknik University	28	6.9
İstanbul Ticaret University	10	2.5
İstanbul University	3	0.7
İzmir Bakırçay University	1	0.2
İzmir Ekonomi University	1	0.2
Kadir Has University	5	1.2
Kapadokya University	1	0.2
Kocaeli University	1	0.2
Maltepe University	9	2.2
Marmara University	10	2.5
Mersin University	1	0.2
Necmettin Erbakan University	1	0.2
Ondokuz Mayıs University	3	0.7
Orta Doğu Teknik University	7	1.7
Osmaniye Korkut Ata University	1	0.2
Özyeğin University	13	3.2
Sakarya Uygulamalı Bilimler University	1	0.2
Sakarya University	3	0.7

Selçuk University	2	0.5
Sinop University	1	0.2
Süleyman Demirel University	1	0.2
TED University	5	1.2
Uludağ University	1	0.2
Yeditepe University	32	7.9
Yıldız Teknik University	39	9.6
Zonguldak Bülent Ecevit University	1	0.2
Did not want to share	9	2.2

Workplace – Faculty

Faculty of Computer and Information Sciences	6	1.5
Faculty of Pharmacy	6	1.5
Faculty of Education	34	8.4
Faculty of Arts and Sciences	44	10.8
Faculty of Fine Arts	6	1.5
Faculty of Law	19	4.7
Faculty of Economy and Administrative Sciences	32	7.9
Faculty of Communication	17	4.2
Faculty of Architecture	35	8.6
Faculty of Engineering	75	18.5
Faculty of Health Sciences	42	10.3
Faculty of Medicine	7	1.7
Other	83	20.4

Appendix B: Informed Consent Form

BİLGİLENDİRİLMİŞ ONAM FORMU

Bu araştırma Yeditepe Üniversitesi Klinik Psikoloji Yüksek Lisans Programı bünyesinde Dr. Öğretim Üyesi Mari Ito Alptürer danışmanlığında öğrencisi İrem Tatar tarafından yüksek lisans tezi kapsamında yürütülmektedir. Bu form sizi araştırma koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışmanın Amacı Nedir?

Çalışmanın amacı araştırma görevlilerinin stresini incelemektir.

Bize Nasıl Yardımcı Olmanızı İsteyeceğiz?

Araştırmaya katılmayı kabul ederseniz, sizden beklenen, ankette yer alan strese dair bir dizi soruyu derecelendirme ölçeği üzerinde yanıtlamanızdır. Bu çalışmaya katılım ortalama olarak 15 - 20 dakika sürmektedir.

Katılımla ilgili bilmeniz gerekenler:

Bu çalışmaya katılmak tamamen gönüllülük esasına dayalıdır. Herhangi bir yaptırıma veya cezaya maruz kalmadan çalışmaya katılmayı reddedebilir veya çalışmayı bırakabilirsiniz. Çalışma dahilinde kimlik bilgileriniz toplanmayacaktır. Sağladığınız diğer veriler yalnızca araştırma dâhilinde kullanılacaktır. Elde edilecek bilgiler araştırmacılar tarafından toplu halde değerlendirilecek ve bilimsel yayımlarda rapor edilmek için kullanılacaktır.

Olası faydalar ve riskler:

Çalışmaya katılmanız durumunda literatüre bu konu hakkında destek sağlayarak veri eklememize yardımcı olacaksınız. Anket, genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Çalışmayla ilgili soru ve yorumlarınızı araştırmacıya
[redacted]@[redacted] adresinden iletebilirsiniz.

Bu bilgilendirilmiş onam belgesini okudum ve anladım. Bu araştırmaya katılmayı hür irademle kabul ediyorum.

Appendix C: Sociodemographic Form

1. Yaşınız: _____
2. Cinsiyetiniz: Kadın Erkek Diğer
3. Ne kadar süredir araştırma görevlisi olarak çalışıyorsunuz? ____ Yıl ____ Ay
4. Şu an çalıştığınız üniversitesinin adı nedir? _____
5. Hangi fakültede çalışıyorsunuz?
 - Bilgisayar ve Bilişim Bilimleri Fakültesi
 - Diş Hekimliği Fakültesi
 - Eczacılık Fakültesi
 - Eğitim Fakültesi
 - Fen-Edebiyat Fakültesi
 - Güzel Sanatlar Fakültesi
 - Hukuk Fakültesi
 - İktisadi ve İdari Bilimler Fakültesi
 - İletişim Fakültesi
 - Mimarlık Fakültesi
 - Mühendislik Fakültesi
 - Sağlık Bilimleri Fakültesi
 - Tıp Fakültesi
 - Ticari Bilimler Fakültesi
 - Diğer (Lütfen belirtiniz.) _____
6. Hangi programda okuyorsunuz?
 - Yüksek Lisans
 - Doktora
 - Diğer (Lütfen belirtiniz.) _____
7. Şu an okuduğunuz programın adı nedir? _____

Appendix D: Perceived Stress Scale

Aşağıda geçtiğimiz ay içerisindeki kişisel deneyimleriniz hakkında bir dizi soru yöneltilmektedir. Her soruyu dikkatlice okuyarak size en uygun seçeneği işaretleyiniz. Soruların doğru veya yanlış cevabı yoktur. Önemli olan sizin duygu ve düşüncelerinizi yansıtan yanıtları vermenizdir.

	Hiçbir Zaman	Neredeyse Hiçbir Zaman	Bazen	Oldukça Sık	Çok sık
1. Geçen ay, beklenmedik bir şeylerin olması nedeniyle ne sıklıkta rahatsızlık duydunuz?	0	1	2	3	4
2. Geçen ay, hayatınızdaki önemli şeyleri kontrol edemediğinizi ne sıklıkta hissettiniz?	0	1	2	3	4
3. Geçen ay, kendinizi ne sıklıkta sinirli ve stresli hissettiniz?	0	1	2	3	4
4. Geçen ay, ne sıklıkta gündelik zorlukların üstesinden başarıyla geldiniz?	0	1	2	3	4
5. Geçen ay, hayatınızda ortaya çıkan önemli değişikliklerle etkili bir şekilde başa çıktığınızı ne sıklıkta hissettiniz?	0	1	2	3	4
6. Geçen ay, kişisel sorunlarınızı ele alma yeteneğinize ne sıklıkta güven duydunuz?	0	1	2	3	4
7. Geçen ay, her şeyin yolunda gittiğini ne sıklıkta hissettiniz?	0	1	2	3	4
8. Geçen ay, ne sıklıkta yapmanız gereken şeylerle başa çıkamadığınızı fark ettiniz?	0	1	2	3	4
9. Geçen ay, hayatınızdaki zorlukları ne sıklıkta kontrol edebildiniz?	0	1	2	3	4
10. Geçen ay, ne sıklıkta her şeyin üstesinden geldiğinizi hissettiniz?	0	1	2	3	4
11. Geçen ay, ne sıklıkta kontrolünüz dışında gelişen olaylar yüzünden öfkeleniniz?	0	1	2	3	4
12. Geçen ay, kendinizi ne sıklıkta başarmak zorunda olduğunuz şeyleri düşünürken buldunuz?	0	1	2	3	4
13. Geçen ay, ne sıklıkta zamanınızı nasıl kullanacağınızı kontrol edebildiniz?	0	1	2	3	4
14. Geçen ay, ne sıklıkta problemlerin üstesinden gelemeyeceğiniz kadar biriktiğini hissettiniz?	0	1	2	3	4

Appendix E: Maslach Burnout Inventory

Aşağıda bireylerin işleriyle ilgili tutumlarını yansıtan ifadeler yer almaktadır. Lütfen her maddede yer alan ifadeden size en uygun olanını içtenlikle 5'li ölçek üzerinden işaretleyiniz.

	Hiçbir zaman	Çok nadir	Bazen	Çoğu zaman	Her zaman
1. İşimden soğuduğumu hissediyorum.	1	2	3	4	5
2. İş dönüşü kendimi ruhen tükenmiş hissediyorum.	1	2	3	4	5
3. Sabah kalktığımda, bir gün daha bu işi kaldıramayacağımı hissediyorum.	1	2	3	4	5
4. İşim gereği karşılaştığım insanların ne hissettiğini anlarım.	1	2	3	4	5
5. İşim gereği karşılaştığım bazı kimselere, sanki insan değillermiş gibi davrandığımı hissediyorum.	1	2	3	4	5
6. Bütün gün insanlarla uğraşmak benim için gerçekten çok yıpratıcı.	1	2	3	4	5
7. İşim gereği karşılaştığım insanların sorunlarına en uygun çözüm yollarını bulurum.	1	2	3	4	5
8. Yaptığım işten tükendiğimi hissediyorum.	1	2	3	4	5
9. Yaptığım iş sayesinde insanların yaşamına katkıda bulunduğuma inanıyorum.	1	2	3	4	5
10. Bu işte çalışmaya başladığımdan beri insanlara karşı sertleştim.	1	2	3	4	5
11. Bu işin beni giderek katılaştırmasından korkuyorum.	1	2	3	4	5
12. Çok şeyler yapabilecek güçteyim.	1	2	3	4	5
13. İşimin beni kısıtladığını hissediyorum.	1	2	3	4	5
14. İşimde çok fazla çalıştığımı hissediyorum.	1	2	3	4	5
15. İşim gereği karşılaştığım insanlara ne olduğu umurumda değil.	1	2	3	4	5
16. Doğrudan doğruya insanlarla çalışmak bende çok fazla stres yaratıyor.	1	2	3	4	5
17. İşim gereği karşılaştığım insanlarla aramda rahat bir hava yaratırım.	1	2	3	4	5
18. İnsanlarla yakın bir çalışmadan sonra kendimi canlanmış hissederim.	1	2	3	4	5
19. Bu işte birçok kayda değer bir başarı elde ettim.	1	2	3	4	5
20. Yolun sonuna geldiğimi, her şeyin bittiğini hissediyorum.	1	2	3	4	5
21. İşimde duygusal sorunlara serinkanlılıkla yaklaşırım.	1	2	3	4	5
22. İşim gereği karşılaştığım insanların, bazı problemlerinden dolayı beni suçladıklarını hissediyorum.	1	2	3	4	5

Appendix F: Coping Humor Scale

Bu ölçek mizahi yaşama ve ifade etme tarzınızla ilgilidir. Lütfen aşağıda yer alan maddeleri dikkatle okuyarak o maddede yer alan ifadeye ne ölçüde katıldığınızı uygun kutucuğu işaretleyerek belirtiniz.

	Kesinlikle katılmıyorum	Katılmıyorum	Katılıyorum	Tamamıyla katılıyorum
1. Sorunlarım olduğunda çoğunlukla mizah duygumu kaybederim.	1	2	3	4
2. Genellikle içinde komik bir şeyler bulmaya çalıştığımda, sorunlarımın önemli ölçüde küçüldüğünü fark etmişimdir.	1	2	3	4
3. Gergin durumlarda genellikle söyleyecek komik bir şeyler bulmaya çalışırım.	1	2	3	4
4. Kabul etmeliyim ki, daha fazla mizahi bakış açısına sahip olsaydım yaşamım daha kolay olabilirdi.	1	2	3	4
5. Beni ya ağlatacak ya da güldürecek bir durumda olduğumda çoğunlukla gülmenin daha iyi olduğunu düşünmüşümdür.	1	2	3	4
6. Zor durumlarda bile genellikle gülecek ya da espri yapacak bir şeyler bulabilirim.	1	2	3	4
7. Deneyimlerim bana mizahın problemlerimle baş etmede çoğunlukla çok etkili bir yol olduğunu göstermiştir.	1	2	3	4

Appendix G: Humor Styles Questionnaire

İnsanlar mizahı çok farklı biçimlerde yaşar ve dışa vururlar. Aşağıda mizahın yaşanabileceği farklı biçimleri ifade eden cümleler yer almaktadır. Lütfen her bir cümleyi dikkatle okuyarak o ifadeye ne ölçüde katıldığınızı ya da katılmadığınızı belirtin. Lütfen mümkün olduğunca dürüst ve tarafsız olarak yanıtlamaya çalışın. Yanıtlarınız için aşağıdaki değerlendirme ölçeğini temel alın:

	Kesinlikle Katılmıyorum	Katılmıyorum	Biraz Katılmıyorum	Kararsızım	Biraz Katılıyorum	Katılıyorum	Tamamıyla Katılıyorum
1. Genellikle çok fazla gülmem ya da başkalarıyla şakalaşmam.	1	2	3	4	5	6	7
2. Morali bozuk olduğunda genellikle kendimi mizahla neşelendirebilirim.	1	2	3	4	5	6	7
3. Birisi hata yaptığında çoğunlukla onunla bu konuda dalga geçerim.	1	2	3	4	5	6	7
4. İnsanların benimle dalga geçmelerine ya da bana gülmelerine gereğinden fazla izin veriyorum.	1	2	3	4	5	6	7
5. İnsanları güldürmek için çok fazla uğraşmam gerekir - doğuştan esprili bir insan gibiyimdir.	1	2	3	4	5	6	7
6. Tek başıma bile olsam çoğunlukla yaşamın gariplikleriyle eğlenirim.	1	2	3	4	5	6	7
7. İnsanlar asla benim mizah anlayışım yüzünden gücenmez ya da incinmezler.	1	2	3	4	5	6	7
8. Kendimi yermem ailemi ya da arkadaşlarımı güldürüyorsa eğer, çoğunlukla bu işi kendimden geçerek yaparım.	1	2	3	4	5	6	7
9. Başımdan geçen komik şeyleri anlatarak insanları pek güldürmem.	1	2	3	4	5	6	7
10. Üzgün ya da mutsuzsam, kendimi daha iyi hissetmek için genellikle o durumla ilgili gülünç bir şeyler düşünmeye çalışırım.	1	2	3	4	5	6	7
11. Espri yaparken ya da komik bir şey söylerken genellikle karşımdakilerin bunu nasıl kaldıracağını pek önemsemem.	1	2	3	4	5	6	7
12. Çoğunlukla kendi güçsüzlüklerim, gaflarım ya da hatalarımla ilgili gülünç şeylerden söz ederek, insanların beni daha çok sevmesini ya da kabul etmesini sağlamaya çalışırım.	1	2	3	4	5	6	7
13. Yakın arkadaşlarımla çok sık şakalaşır ve gülerim.	1	2	3	4	5	6	7

14.Yaşama karşı takındığım mizahi bakış açısı, benim olaylar karşısında aşırı derecede üzülmemi ya da kederlenmemi önler.	1	2	3	4	5	6	7
15.İnsanların, mizahı başkalarını eleştirmek ya da aşağılamak için kullanmalarından hoşlanmam.	1	2	3	4	5	6	7
16.Çoğunlukla kendi kendimi kötileyen ya da alaya alan espriler yapmam.	1	2	3	4	5	6	7
17.Genellikle fıkra anlatmaktan ve insanları eğlendirmekten hoşlanmam.	1	2	3	4	5	6	7
18.Tek başıyım ve mutsuzsam, kendimi neşelendirecek gülünç şeyler düşünmeye çalışırım.	1	2	3	4	5	6	7
19.Bazen öyle komik şeyler gelir ki aklıma bunlar insanları incitebilecek, yakışık almaz şeyler olsa bile, kendimi tutamam söylerim.	1	2	3	4	5	6	7
20.Espriler yaparken ya da komik olmaya çalışırken çoğunlukla kendimi gereğinden fazla eleştiririm.	1	2	3	4	5	6	7
21.İnsanları güldürmekten hoşlanırım.	1	2	3	4	5	6	7
22.Kederli ya da üzgünsem genellikle mizahi bakış açımı kaybederim.	1	2	3	4	5	6	7
23.Bütün arkadaşlarım bunu yapıyor olsa bile, bir başkasıyla alay edip ona gülerlerken asla onlara eşlik etmem.	1	2	3	4	5	6	7
24.Arkadaşlarımla ya da ailemle birlikteyken çoğunlukla hakkında espri yapılan ya da dalga geçilen kişi ben olurum.	1	2	3	4	5	6	7
25.Arkadaşlarımla çok sık şakalaşmam.	1	2	3	4	5	6	7
26.Tecrübelerime göre bir durumun eğlendirici yanlarını düşünmek, sorunlarla başa çıkmada çoğunlukla etkili bir yoldur.	1	2	3	4	5	6	7
27.Birinden hoşlanmazsam çoğunlukla onu küçük düşürmek için hakkında espri yapar ya da alay ederim.	1	2	3	4	5	6	7
28.Sorunlarım varsa ya da üzgünsem, çoğunlukla gerçek duygularımı, en yakın arkadaşlarım bile anlamasın diye, espriler yaparak gizlerim.	1	2	3	4	5	6	7
29.Başkalarıyla birlikteyken genellikle aklıma söyleyecek esprili şeyler gelmez.	1	2	3	4	5	6	7
30.Neşelenmek için başkalarıyla birlikte olmam gerekmez, genellikle tek başıyken bile gülecek şeyler bulabilirim.	1	2	3	4	5	6	7
31.Bir şey bana gerçekten gülünç gelse bile, birini gücendirecekse eğer, buna gülmem ya da bununla ilgili espri yapmam.	1	2	3	4	5	6	7
32.Başkalarının bana gülmesine izin vermek; benim, ailemi ve arkadaşlarımı neşelendirme tarzımdır.	1	2	3	4	5	6	7

Appendix H: Debriefing Form

Çalışma Sonu Bilgilendirme

Araştırma görevlilerinin algılanan stresi, tükenmişliği, mizah tarzları ve mizahla başa çıkmayı ne kadar kullandıkları arasındaki ilişkiyi inceleyen araştırmamıza katıldığınız için size çok teşekkür ederiz.

Literatürde öğretim görevlilerinin stresini inceleyen araştırmalar bulunmaktadır. Ancak araştırma görevlilerinin stresine odaklanan çalışmalar kısıtlıdır. Biz de literatürdeki bu açığı kapamak ve araştırma görevlilerini stresin olumsuz etkilerinden koruyabilecek başa çıkma mekanizmalarını incelemenin faydalı olacağını düşündük.

Çalışma kapsamında sağladığımız veriler ve çalışma sonuçları bilimsel ve mesleki etik ilkeleri çerçevesinde korunacak, sonuçlar toplu olarak yorumlanıp yalnızca bilimsel yayın amacıyla toplu bilgiler halinde paylaşılacaktır.

Çalışmanın sağlıklı ilerleyebilmesi için çalışmaya katılacağınızı bildiğiniz diğer kişilerle çalışma ile ilgili detaylı bilgi paylaşımında bulunmamanızı dileriz.

Değerli katılımınız için tekrar çok teşekkür ederiz.

Araştırmanın sonuçlarını öğrenmek, daha fazla bilgi almak ya da psikolojik destek için yönlendirme yapılmasını isterseniz araştırmacıya başvurabilirsiniz.

İrem Tatar - xxxxxxxx@xxxxxxx

Appendix I: Research Ethics Committee Approval



T.C.
YEDİTEPE ÜNİVERSİTESİ REKTÖRLÜĞÜ

04.03.2023

Sayı : E.50532705-302.14.01-1496
Konu : İrem Tatar Kurul Onayı

İLGİLİ MAKAMA

Üniversitemiz Sosyal Bilimler Enstitüsü Klinik Psikoloji Yüksek Lisans Öğrencisi İrem Tatar'ın, Dr. Öğr. Üyesi Mari Ito Alptürer danışmanlığında gerçekleştireceği "Perceived Stress and Burnout in Research Assistants: The Role of Humor" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğuna ilişkin Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu Onayı ekte sunulmuştur.

Gerekli iznin verilmesi hususunu bilgilerinize arz ve rica ederim.

İmza
Prof. Dr. Fatma Yeşim EKİNCİ
Rektör a.
Rektör Yardımcısı

Ek: Etik Kurul Onayı.pdf

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Adresi : <http://belgedogrulama.yeditepe.edu.tr/bg.aspx?id=83A426D1-5ABD-4E68-B8A3-BE924E2FBBA4>
Yeditepe Üniversitesi 26 Ağustos Yerleşimi, İnönü Mahallesi Kayışdağı
Caddesi 34755
Ataşehir / İSTANBUL
Telefon No: (0216) 578 00 00 Faks No : (0216) 578 02 99
İnternet Adresi www.yeditepe.edu.tr
Kep Adresi : yeditepeuniversitesi@hs03.kep.tr

Bilgi İçin: Suat ANAR
Unvan: Öğretim Üyesi
Telefon No: (0216) 578 00 00



YEDİTEPE ÜNİVERSİTESİ BEŞERİ VE SOSYAL BİLİMLER ETİK KURULU KOMİSYONU

**10.02.2023 TARİHLİ
36/2023 No'lu TOPLANTI KARARLARI**

- 9) Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü Klinik Psikoloji Yüksek Lisans Öğrencilerinden İrem Tatar'ın, Dr. Öğr. Üyesi Mari Ito Alptürer danışmanlığında gerçekleştireceği "Perceived Stress and Burnout in Research Assistants: The Role of Humor" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.