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Bachelor's thesis in Psychology
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PSY2910

Candidate: 10119

Trondheim, Spring 2024

Norwegian University of Science and Technology (NTNU)

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Preface

This study is written as part of a quantitative bachelor project at NTNU: “Exploring the landscape of psychosocial work factors in healthy workplaces.” It is part of an international research project that examines cultural, organisational, and individual factors on work addiction and related health problems. Their survey was translated to Norwegian by the project managers at NTNU and the study was submitted to the Knowledge Sector Service Provider (SIKT) prior to data collection. The Norwegian questionnaire was distributed to friends and family by the 20 students following the project. The collected data was entered into an Excel spreadsheet by the supervisors and shared with the students. At the beginning of the project, the supervisors introduced the various themes involved in the questionnaire, as well as relevant articles and theories. The development and formulation of a research question, hypotheses, and identification of literature was independently carried out by the student and approved by the dedicated supervisor. The statistical analyses were based on the hypotheses and conducted in JASP by the student. The thesis is written independently, with constructive feedback from the supervisor and other students along the way.

Abstract

This study examines the influence of motivational climates (performance climate vs. mastery climate) on the relationship between perfectionism and work addiction within the Job Demands-Resources (JD-R) model and the Conservation of Resources (COR) theory frameworks. Data was collected from 689 Norwegian employees through an online questionnaire, using a cross-sectional design. A Spearman's Rho correlation analysis confirmed the first hypothesis that performance climate positively correlates with perfectionism and work addiction, whereas mastery climate negatively correlates with these variables. The second hypothesis predicted a positive interaction effect between performance climate and perfectionism on work addiction, and a negative interaction effect with mastery climate. However, a multiple hierarchical regression analysis revealed non-significant interaction effects, thus not confirming the second hypothesis. These findings suggest that while motivational climate and perfectionism independently influence work addiction, their combined effects do not predict work addiction. This research contributes with nuanced results on how work condition and individual traits interact, highlighting the complex nature of work addiction. Theoretically, the results challenge the JD-R buffer hypothesis and COR's loss and gain cycles, indicating that the moderation effects might not extend to work addiction. Practically, the findings advocate a dual approach, for organisations to address both motivational climates and individual predispositions to manage work addiction effectively. Organisations should foster environments that reduce excessive work pressure and promotes balanced work habits, acknowledging the intricate dynamics of individual and contextual factors in the workplace.

Abstrakt

Denne studien undersøker hvordan motivasjonsklima (prestasjonsklima vs. mestringsklima) påvirker forholdet mellom perfektjonisme og arbeidsavhengighet innenfor rammene av Jobbkraft-ressursmodellen (JD-R) og Konservering av Ressurser (COR)-teorien. Data var samlet inn fra 689 norske ansatte gjennom et nettbasert spørreskjema, ved bruk av et tverrsnittdesign. En Spearman's Rho korrelasjonsanalyse bekreftet den første hypotesen om at prestasjonsklima korrelerer positivt med perfektjonisme og arbeidsavhengighet, mens mestringsklima korrelerer negativt med disse variablene. Den andre hypotesen predikerte en positiv interaksjonseffekt mellom prestasjonsklima og perfektjonisme på arbeidsavhengighet, og en negativ interaksjonseffekt med mestringsklima. En multipl hierarkisk regresjonsanalyse viser til ikke-signifikante interaksjonseffekter, og bekrefter dermed ikke den andre hypotesen. Funnene indikerer at motivasjonsklima og perfektjonisme korrelerer med arbeidsavhengighet, men at deres kombinerte effekt ikke predikerer arbeidsavhengighet. Denne forskningen bidrar med nyanserte resultater til hvordan arbeidsforhold og individuelle trekk interagerer, noe som underbygger den komplekse naturen ved arbeidsavhengighet. Teoretisk utfordrer resultatene JD-R-bufferhypotesene og CORs tap- og vinningsspiraler, noe som indikerer at moderasjonseffektene nødvendigvis ikke strekker til ved arbeidsavhengighet. I praksis underbygger funnen en kombinert tilnærming, der organisasjoner adresserer både motivasjonelt klima og individuelle predisposisjoner for å effektivt håndtere arbeidsavhengighet. Organisasjoner bør fremme miljøer som reduserer overdreven arbeidspress og promoterer balanserte arbeidsvaner, samt anerkjenner den komplekse dynamikken av individuelle og kontekstuelle faktorer på arbeidsplassen.

Investigating an interaction between perfectionism and motivational climate on work addiction

Over the past decade, digitalisation, automatization, and globalisation have transformed the nature of work (Norwegian Ministry of Finance, 2021). An increase in global competitiveness and technological advances force employees to acquire new knowledge more frequently and faster than before (Bakker & Demerouti, 2017). The Norwegian labour market is characterised by high employment rates, low inequality, and a high educational level (Nilsen, 2020). Nevertheless, the Norwegian workforce experiences one of the highest levels of sickness absenteeism among the OECD countries (Hemmings & Prinz, 2020). Efforts to reduce these levels have traditionally focused on the elimination and reduction of workplace risk factors, such as the regulation of noise levels to reduce physical strain. However, OECD (2013) has recommended that the Norwegian government integrates health-promotional interventions alongside these preventative measures. This provides a basis for research that examines whether work conditions contribute to the prevalence of maladaptive work behaviours.

Contemporary research argue that work addiction deserves formal recognition as a behavioural addiction (Griffiths et al., 2018). Work addiction is defined as compulsion and preoccupation to work that may lead to harm and distress of a functionally impairing nature (Work Addiction, 2024). Although the term was introduced over 50 years ago, a significant increase of 88% of work addiction literature was published from 2000 until 2016 (Clark et al., 2016). The literature is characterised by fragmented examinations that limits the assessment of interactions between contributors of work addiction (Morkevičiūtė & Endriulaitienė, 2023c). Most studies have focused on individual processes, leading to a need for research on organisational-level variables to provide a more comprehensive understanding of work addiction (Atroszko et al., 2020). Research acknowledges that individual factors do not make

up the entire risk of work addiction (Kun et al., 2021). Therefore, it is a knowledge gap on the interactions between dispositional risk factors and contextual variables. Consequently, the current study aims to examine whether perfectionism, as an individual characteristic, and motivational climates, as an organisational factor, can predict work addiction. This will be assessed within the frameworks of the Job Demands-Resources model and Conservation of Resources theory.

Work addiction

The phenomenon was first introduced by Oates (1968) as a combination of work and alcoholism: workaholism. In 1971, Oates defined the behaviour as “addiction to work, the compulsive and uncontrollable need to work incessantly”. Since the term was first used, there has been a lack of consensus on the operationalisation, conceptualisation, and measurement of the behaviour. Most of the literature was non-empirical until the 1990s, when Spence and Robbins (1992) created the first empirically grounded definition and measurement. Their workaholic triad identifies six types of individuals based on three components: work involvement, compulsion, and work enjoyment. Porter (1996) later defined it as excessive work involvement, where other areas of life are neglected as internal motives drive the behavioural maintenance. The perception of workaholism as a multidimensional concept has given way for a more unidimensional concept within the contemporary research. The term “work addiction” is associated with genuine addiction, while workaholism is associated with an everyday conceptualisation of high work investment (Morkevičiūtė & Endriulaitienė, 2023a). Therefore, a consensus has been research on the internal obsessive drive as the core element of work addiction (Andreassen, 2014).

Certain researchers argue that work addiction has positive attributes. Spence and Robbins (1992) include work enjoyment as a positive component within their triad, while Scott et al. (1997) argue that extra work effort leads to positive outcomes. However, work

addiction is also associated with negative outcomes such as higher job stress, conflicts with colleagues, poor subjective well-being, and decreased physical and mental health (Clark et al., 2014; Clark et al., 2016; Schaufeli et al., 2006; Spence & Robbins, 1992). Further, longitudinal research reports an association between work addiction and a decrease in health and satisfaction (Shimazu et al., 2015). Recent statements circle back to Oates' (1971) description of the behaviour as a negative concept, arguing that the definition must reflect the negative outcomes and that the positive components should be excluded from the conceptualisation of the term (Schaufeli, Shimazu, & Taris, 2009; Schaufeli et al., 2006).

In practice there are two approaches to work addiction: 1) An individualistic approach, and 2) An organisational climate approach (Saksvik-Lehouillier & Vaag, 2020). The first approach focuses on the adjustment of maladaptive through patterns or schemas, while the last approach focuses on promotion of adaptive work behaviours through an organisation's culture. The approaches are based on the various theoretical perspective on work addiction: 1) As a state of addiction, 2) As a result of learning, 3) As a construct of personality, 4) As a results of thought processes, and 5) In context of work-family conflict (Saksvik-Lehouillier & Vaag, 2020). Although the perspectives differ from each other, they are not necessarily mutually exclusive. Andreassen (2014) argue that work addiction has aspects of learning and rigid thought patterns, that interact and may be maintained through individualistic traits and contextual factors. This study is in line with the contemporary measurements of the behaviour as a state of addiction, driven by a strong internal motivation (Andreassen et al., 2012). Perfectionism and motivational climates will be examined in association with work addiction, incorporating the perspectives of personality and learning.

Perfectionism

Perfectionism is broadly defined as a tendency to set exceedingly high standards of performance and is characterised by overly critical evaluations of oneself or others (Frost et

al., 1990; Hewitt & Flett, 1991). The perfectionism literature is affected by debates on the dimensions, valence, and measurement of the construct. Frost et al. (1990) proposed six dimensions characterised by unreasonably high personal standards and concerns for performance quality, while Hewitt and Flett (1991) described three dimensions characterised by striving for perfectionism but differed in their interpersonal nature and direction of belief. Frost et al. (1993) consolidated the nine dimensions into a two-factor model that captures the common variance: *positive strivings* include self-oriented perfectionism, personal standards, and striving for perfection, while *maladaptive evaluation of concerns* include doubt about actions, concern for mistakes, discrepancy, socially prescribed perfectionism, and negative reactions to imperfections. The labels were later revised to *perfectionistic strivings* and *perfectionistic concerns* to hinder positive or negative outcome associations with either dimension (Stoeber & Otto, 2006). Despite former disagreements, a strong consensus has been reached on perfectionism as a multidimensional construct (Ocampo et al., 2020).

The perspective on work addiction as a construct of personality argue an association between the behaviour and specific personality characteristics (Saksvik-Lehouillier & Vaag, 2020). The current study examines perfectionism as literature reports this personality trait as having one of the strongest and most robust positive associations with work addiction (Clark et al., 2010; Clark et al., 2016; Kun et al., 2021). Girardi et al. (2018) propose that self-oriented perfectionists perceive their performance as inadequate, which Mazzetti et al. (2014) argues can drive individuals to work excessively hard to reduce the inadequacy. Falco et al. (2014) describes the acceptance and approval of others as a central concern for socially prescribed perfectionists, which Girardi et al. (2015) view as problematic if conditional to the fulfilment of high standards. As Pannhausen et al. (2022) describes it as problematic for perfectionists to acquire the perception of “enough” and Kim (2019) states that frequently repeated behaviours develop into habits, it is plausible perfectionism could drive excessive

work behaviour that forms the foundations for work addiction. However, Morkevičiūtė and Endriulaitienė (2022) states that to fully understand the influence of perfectionism on work addiction, there is need for research that examines the interaction between dispositional and contextual variables.

Motivational climates

The organisational climate consists of employee's shared perceptions and interpretations of practices and policies within the workplace, as well as the behaviours that are observed as supported and rewarded (Schneider et al., 2013). The motivational climate is subordinate to the organisational climate as an individuals' perception of what goal achievement means and how efforts will be rewarded within a specific environment (Nerstad et al., 2018). The motivational climate is divided into two dimensions: 1) Mastery climate as characterised by values that enhance learning, growth, and cooperation, and 2) Performance climate as characterised by egoistic motivations, competition, and comparison with colleagues (Nerstad et al., 2013). The climates are associated with opposing outcomes, as research argues mastery climate to encourage knowledge sharing across the organisation, while performance climate stimulate employees to withhold knowledge to obtain a competitive advantage (Caniëls et al., 2019; Černe et al., 2014). Buch et al. (2017) argues that the potential of positive outcomes with mastery climates decrease when performance climate is high.

The perspective of work addiction as a construct of learning argue that employees acquire behaviours that reflect an organisation's climate through positive reinforcements (Saksvik-Lehouillier & Vaag, 2020). Atroszko et al. (2019) states that environmental factors have the potential to prompt work addiction as previous research argue that organisations with a greater degree of peer competition and "winner-takes-all" reward systems may induce work addiction (Liang & Chu, 2009; Ng et al., 2007). However, Johns (2018) actualises that the work context has an effect on individuals' performances and personality. Recently,

Morkevičiūtė and Endriulaitienė (2023c) stated that the greatest risk of work addiction lies in the entity of factors. With Keller et al. (2016) finding a positive interaction effect between competitive climates and individual factors on work addiction, and Mazzetti et al. (2014) reporting overwork climates to facilitate work addiction among individuals high in perfectionism.

Job demands-resources model

The Job Demands-Resources model (JD-R) is a theoretical framework that integrates job-stress and motivational processes. The model states that all work characteristics can be divided into two categories: job demands and job resources (Demerouti et al., 2001).

Demands are work characteristics that require sustained psychological or physiological effort and are associated with mental or physical costs, whereas resources are aspects of the job that contribute to an individuals' development, growth, and learning (Bakker & Demerouti, 2007).

The demands and resources are associated with two psychological processes: a health-impairment process and a motivational process which respectively relates to strain and motivation (Demerouti & Bakker, 2011). Job demands were assumed a central part in the health-impairment process as high job demands deplete energy and erode resources which significantly increases job strain, while job resources are associated with the motivational process as they may increase an individuals' energy and drive positive outcomes (Bakker & Demerouti, 2007). However, demands have later been divided into two as some are argued to hold a motivational potential: 1) Hindrance demands deplete individuals of energy which may limit effort and prevent goal attainment, and 2) Challenge demands also require energy but has a stimulating effect that encourages growth, mastery, and motivation (Bakker & Demerouti, 2017).

Given that JD-R identifies work conditions as predictors of ill-being and well-being, the model is used to conceptualise motivational climates as conditions that may act as

demands or resources within the workplace, affecting employees through health-impairment and motivational processes. As competitive climates have been established as compatible with job demands, this study assumes performance climate to act as a demand and mastery climate to act as a resource (Morkevičiūtė & Endriulaitienė, 2023b; Nerstad et al., 2020).

Furthermore, the JD-R model describes an interaction where resources may reduce the strain of demands and their associated costs, formally referred to as the buffer hypothesis (Bakker & Demerouti, 2007). In a study by Molino et al. (2016) it was reported significant interaction effects between job resources and job demands on work addiction. Based on the buffer hypothesis, the current study assumes mastery climate to buffer the association between perfectionism and work addiction, while performance climate increases the association and risk of strain.

Conservation of resources theory

Conservation of resources (COR) is a stress and motivation theory that posits individuals are driven by a fundamental desire to obtain, retain, and protect resources they value (Hobfoll, 1989). The theory states that a psychological stress response is innate when individuals experience resource loss, resources are threatened, or if there is an absence of gain following an investment of resources (Hobfoll & Shirom, 2000). The theory operates on several principles, the first is the primacy of loss and the second is resource investment. The first principle describes resource loss as more prominent with a greater impact on the individual than resource gain, whereas the second principle states that individuals must invest resources to protect or recover from resource loss, as well as to gain additional resources (Hobfoll et al., 2018). The resources are divided into two categories: 1) Primary resources are object resources (e.g. tools for work), energy resources (e.g. knowledge), condition resources (e.g. tenure), and personal resources (e.g. personality traits), and 2) Secondary resources as resources that can be used to obtain additional resources (Hobfoll et al., 2018). The theory

states that individuals with greater resource are less vulnerable to loss and more inclined to gain, introducing the concepts of resource gain- and loss cycles (Hobfoll et al., 2018). A gain cycle is an accumulation process in which sufficient access to resources enables access to additional resources. While a greater access to resources makes individuals more resilient when resources are threatened, limited access makes it difficult to prevent loss (Hobfoll & Shirom, 2000). Therefore, as loss cycle describes when individuals lose resources it may result in a cascade of further losses that increases in momentum and magnitude.

Alongside the JD-R model, the COR theory provides a basis for the study to examine how motivational climates may influence the availability, lack of or utilisations of resources. The frameworks are compatible as JD-R enables a more general discussion of demands-resources, while COR provides a more narrowed discussion of resource gain and loss cycles as the mechanisms behind well or ill-being. For instance, mastery climate as a resource has the potential to foster resource gain cycles, while performance climate as a demand heightens the risk of resource loss cycles. In combination, the frameworks offer a comprehensive view of the interaction between environmental and individual factors on work addiction.

Objectives of the current study

The thesis uses the JD-R model and COR theory to examine work and personal characteristics as resources and demands. The main objective is to explore if perfectionism and the motivational climates predict work addiction, focusing on resource loss impact and buffer effects. Thus, the research question is defined as follows:

Does the type of motivational climate at work (performance climate vs. mastery climate) affect the relationship between perfectionism and work addiction?

Hypotheses

The present literature and research question with a focus on the JD-R buffer hypothesis and COR theory's primacy of loss principle evolved in the following hypotheses:

H¹: Positive associations are expected between performance climate, perfectionism, and work addiction, while negative associations are anticipated with mastery climate.

H²: A positive interaction effect is expected between performance climate and perfectionism on work addiction, contrasting with a negative interaction effect anticipated between mastery climate and perfectionism on work addiction.

Methods

Design and procedure

The study is part of a quantitative bachelor project at NTNU: “Exploring the landscape of psychosocial work factors in healthy workplaces.” It is part of an international research project examining the cultural, organisational, and individual predictors of work addiction and related health problems. The study utilised a cross-sectional design where data was collected from January until February 2024 through an online survey. The students following the project recruited participants using the snowball method, sharing a link to the survey with friends and family to efficiently collect data from a broad range of occupational backgrounds. The survey consisted of approximately 140 questions translated to Norwegian by the project managers, taking between 15 to 20 minutes to complete. To support the broader objectives of the international research project, the questionnaire included items beyond the thesis’ focus on perfectionism, motivational climates, and work addiction. The study was submitted to the Knowledge Sector Service Provider (SIKT) by the project managers and an ethics approval was obtained prior to data collection. Informed consent was ensured through an informational letter informing participants about the purpose of the study, confidentiality of their responses, and their rights to withdraw at any time.

Sample

Snowball sampling was used to recruit a broad range of participants, as the study aimed to examine the general Norwegian working population. The participants had to live in

Norway, be a Norwegian citizen, be at least 18 years of age, work full-time, work for an organisation with a minimum of 10 employees, had to be employed for at least a year, and give their informed consent to meet the inclusion criteria. Participants that did not give their informed consent, failed the attention check questions, or opened the survey without giving any response were excluded from the study. A total of 689 individuals participated in the study, of which 396 (57.5%) were women and 293 (42.5%) men. The age distribution ranged from 18 to 69 years, divided into five categories measured in 10-year intervals: 116 (16.8%) were aged 18-29, 118 (17.1%) were 30-39, 157 (22.8%) were 40-49, 217 (31.5%) were 50-59, and 81 (11.8%) were 60-69.

Measurements

At the beginning of the questionnaire, participants provide general background information including gender, age, marital status, and educational background. Work related questions such as years of work experience, income, sector, size of organisation, and managerial status are also included. Four variables are measured to investigate the research question: perfectionism, motivational climate (performance and mastery climate), and work addiction.

Perfectionism

Perfectionism is measured using four items from Rice et al. (2014) Short Almost Perfect Scale (SAPS). The original scale consists of eight items equally divided to assess individuals' concerns and strivings towards perfectionism, characterised as two subscales: standards and discrepancy. Standards reflect high performance expectations, while discrepancy reflect self-critical performance evaluations. The instruments' reliability has previously shown an internal consistency of $\alpha = 0.77$ across all items (Lins de Holanda Coelho et al., 2021).

In this study, four items measured perfectionism: two for standards (e.g., I have a strong need to strive for excellence) and two for discrepancy (e.g., My performance rarely measures up to my standards). Responses are measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree), where a higher total score indicates a higher degree of perfectionism. The four items have an internal consistency of $\alpha = 0.69$, while the subscales show $\alpha = 0.65$ for standards and $\alpha = 0.74$ for discrepancy.

Motivational climate

Motivational climate is measured using eight items from Nerstad et al. (2013) Motivational Climate at Work Questionnaire (MCWQ). The instrument evaluates how employees perceive success to be defined within their work environment. The original scale consists of 14 items across two dimensions: eight items for performance climate and six for mastery climate. Respondents assess to which extent they perceive the presence of the two climates. Previous research has reported a Cronbach's $\alpha = 0.88$ for the eight items measuring performance climate and $\alpha = 0.85$ for the six mastery climate items (Kopperud et al., 2020).

This study uses eight items to measure the motivational climate: four items measure the presence of a performance climate (e.g., In my department/work group, only those employees who achieve the best results/accomplishments are set up as examples), and four items measure the extent of a mastery climate (e.g., In my department/work group, each individual's learning and development is emphasised). Responses are measured on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree), where a higher total score in each climate variable reflect a higher perceived presence of each climate. The performance climate items have a Cronbach's $\alpha = 0.76$, while the mastery climate items show $\alpha = 0.81$.

Work addiction

Work addiction is measured using a total of 16 items, combining the seven items from Andreassen et al. (2012) Bergen Work Addiction Scale (BWAS) and nine self-developed

items. BWAS consists of seven items (e.g., How often during the last year have you ... Thought of how you could free up more time for work?), each representing a core component of addiction: salience, tolerance, mood modification, relapse, withdrawal, conflict, and problems. The responses are measured on a five-point Likert scale ranging from 1 (never) to 5 (always), where scoring 4 (often) or 5 (always) on four out of seven items indicates a high risk of work addiction. Previous research has reported an internal consistency of $\alpha = 0.78$ across all items, while in this study the seven items show $\alpha = 0.87$. (Bellali et al., 2023; Falco et al., 2022).

The nine self-developed items (e.g., How often during the last year have you felt that work was more important than your relationships with friends and family) were created by researchers of the international research project. The responses are measured on a five-point Likert scale (1 = never, 5 = always). The nine items show an internal consistency of $\alpha = 0.90$, while a reliability analysis of all 16 items measuring work addiction show a Cronbach's $\alpha = 0.94$.

Statistical analysis

Data was entered into an Excel spreadsheet by the supervisors and shared with the students following the research project. All statistical analyses were conducted using Jeffrey's Amazing Statistics Program (JASP Team, 2024).

Descriptive statistics were calculated to examine sample demographics and the main variables: perfectionism, performance climate, mastery climate, and work addiction. Frequencies, percentages, means, and standard deviations were reported, with explicit noting of non-responses. Perfectionism had 12 non-responses that were retained without imputation, as the large sample size enabled robust estimated despite missing values. Correlation was conducted to assess the first hypothesis predictions on the relationships between the variables.

A Spearman's Rho correlation was used due to non-normal distributions of the variables, as indicated by a Shapiro Wilk test.

Multiple hierarchical regression was used to assess the predicted interaction effects of the second hypothesis on work addiction. Independent variables were centred at their means to reduce multicollinearity. Two interaction terms were computed using the centralised variables and included in the model: 1) Mastery climate and perfectionism, and 2) Performance climate and perfectionism. Visual inspections of scatter plots, Q-Q plots, histograms, and boxplots validated the assumption requirements. Analyses were conducted with and without outliers identified in the boxplots, one for work addiction and 14 for mastery climate. The outliers were retained as exclusion showed no significant impact on model fit or predictive effects.

The reliability of the survey instruments was assessed using Cronbach's alpha coefficients for the subscales derived from SAPS for perfectionism, MCWQ for mastery- and performance climate, and the combination of BWAS with the self-developed items for work addiction.

Results

Descriptive statistics and correlations

A Spearman's Rho correlation analysis shows significant results for all variables, supporting the predicted directions of effects in the first hypothesis (Table 1). There were significant positive correlations for performance climate on perfectionism, $r(687) = .19, p < .001$, and work addiction, $r(687) = .29, p < .001$, as well as significant negative correlations for mastery climate on perfectionism, $r(687) = -.18, p < .001$, and work addiction, $r(687) = .22$.

Table 1

Descriptive Statistics and Spearman's Rho Correlation Between Perfectionism, Mastery Climate, Performance Climate, and Work Addiction (N = 689)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Perfectionism	4.34	1.12	-			
2. Performance climate	3.12	1.35	.19***	-		
3. Mastery climate	5.17	1.18	-.18***	-.17***	-	
4. Work addiction	2.25	0.75	.43***	.29***	-.22***	-

Note. *** $p < .001$. $N = 689$ refers to the total sample size, while the analysis for perfectionism is based on 677 participants due to 12 non-responses.

Regression

A multiple hierarchical regression analysis was performed to examine if the interaction effects predicted work addiction. The analysis shows non-significant results, not supporting the predicted interaction effects of the second hypothesis (Table 2). As shown in the table, the first model on perfectionism, mastery climate, and performance climate accounts for 26.1% ($R^2 = .261, p < .001$) of the variance in work addiction. The inclusion of the two interaction terms in the second model shows a statistically non-significant increase in the explained variance of 0.2% ($\Delta R^2 = .002, p = 0.354$). In the first model, perfectionism was the strongest predictor of work addiction, $\beta = 0.38, p < .001$, followed by performance climate, $\beta = 0.21, p < .001$, and mastery climate, $\beta = -0.15, p < .001$. The second model retains the predictive strength and rank order of perfectionism, $\beta = 0.38, p < .001$, and performance climate, $\beta = 0.21, p < .001$, with a slight decrease in the predictive power of mastery climate, $\beta = -0.14, p < .001$, on work addiction. The interactions between perfectionism and mastery climate, $\beta = -$

0.04, $p = 0.266$, and perfectionism and performance, $\beta = 0.03$, $p = 0.423$, did not significantly predict work addiction or support the second and central hypothesis of this thesis.

Table 2

Multiple Hierarchical Regression Analysis Predicting Work Addiction Based on Perfectionism, Performance Climate, Mastery Climate, and Their Interaction Terms (N = 689)

Variable	<i>b</i>	95% CI	<i>SEb</i>	β	R^2	ΔR^2
Model 1					.261***	.261***
Perfectionism	0.26***	[.21, .30]	0.02	0.38***		
Mastery climate	-0.09***	[-.14, -.05]	0.02	-0.15***		
Performance climate	0.12***	[.08, .15]	0.02	0.21***		
Model 2					.264	.002
Perfectionism	0.26***	[.21, .30]	0.02	0.38***		
Mastery climate	-0.09***	[-.13, -.05]	0.02	-0.14***		
Performance climate	0.12***	[.08, .15]	0.02	0.21***		
Perfectionism and mastery climate	-0.02	[-.05, .01]	0.02	-0.04		
Perfectionism and performance climate	0.01	[-.02, .04]	0.02	0.03		

Note. *** $p < .001$. ΔR^2 indicates the change in R^2 from Model 1 to Model 2. CI is BCa

bootstrap 95% confidence interval for *b*. $N = 689$ refers to the total sample size, while analyses for perfectionism are based on 677 participants due to 12 non-responses.

Discussion

The aim of this study was to examine if the type of motivational climate at work affects the relationship between perfectionism and work addiction. The study seeks to contribute to a knowledge gap on the possible interaction effects between individual and environmental factors on work addiction. The first hypothesis assumed positive correlations between performance climate, perfectionism, and work addiction, whereas negative correlations were anticipated with mastery climate. The second hypothesis assumed a positive interaction effect between performance climate and perfectionism on work addiction, and a negative interaction effect between mastery climate and perfectionism on work addiction. A significant Spearman's Rho correlation analysis provided support for the first hypothesis, while a non-significant multiple hierarchical regression analysis did not support the second hypothesis.

Correlations – perfectionism, performance climate, mastery climate, and work addiction

The first hypothesis expected performance climate to show positive associations with perfectionism and work addiction, while mastery climate would show negative associations. A Spearman's Rho correlation analysis shows significant results for the anticipated directions of effects, supporting the predictions of the first hypothesis. The findings show weak effects for the motivational climates on perfectionism and work addiction, except for a moderate effect between performance climate and work addiction. The correlations indicate that higher levels of performance climate are associated with higher levels of both perfectionism and work addiction, while higher levels of mastery climate are associated with lower levels in these variables.

In comparison with existing literature the results on the motivational climates and perfectionism are consistent with research showing a positive association between ego-involving climates and perfectionism, and a negative association with task-involving climates

(Nordin-Bates et al., 2014). The finding on the association between performance climate and work addiction aligns with previously reported positive correlations (Keller et al., 2016; Liang & Chu, 2009; Ng et al., 2007). The identification of a negative correlation between mastery climate and work addiction support researchers advocating for mastery climate as a facilitator of health promotion in organisations (Nerstad et al., 2020). While these results are in accordance with the predictions of the hypothesis, the analysis shows an additional moderate positive association for perfectionism on work addiction and a weak negative association between performance climate and mastery climate. The positive correlation aligns with the research arguing perfectionism as an established risk factor on work addiction (Clark et al., 2016; Kun et al., 2021). Lastly, the negative correlation supports the theoretical assumption that the motivational climates are interactional while being relatively independent in nature (Buch et al., 2017).

The findings expand knowledge on the variables as job demands and job resources, as well as the concepts of loss and gain cycles. The positive correlations indicate that performance climates and perfectionism act as job demands that increase the risk of work addiction. For example, employees in performance climates may feel compelled to work excessively due to external pressures, while perfectionistic individuals may engage in excessive work to cope with internal concerns and strivings. These behaviours reflect demanding tendencies that may reduce employees' resources through a health-impairment process (Bakker & Demerouti, 2007). The concept of a loss cycle provides insight into the underlying mechanism of the positive correlations. As job demands, performance climate and perfectionism can make individuals more susceptible to resource loss and ill-being (Hobfoll, 2001). As performance climates have been stated to promote knowledge hiding, and perfectionists are known to avoid task delegation, these behaviours could deplete employee resources (Černe et al., 2014; Schaufeli, Bakker, et al., 2009). Conversely, the negative

correlations suggest that mastery climates act as a job resource that exert positive effects on perfectionism and work addiction through a motivational process (Bakker & Demerouti, 2007). By emphasising learning, cooperation, and development, mastery climates may make individuals more inclined to maintain and gain resources as they cope with perfectionism or work addiction (Nerstad et al., 2019).

Regression – independent variables and interaction terms on work addiction

The second hypothesis expected a positive interaction effect between performance climate and perfectionism on work addiction, and a negative interaction effect between mastery climate and perfectionism on work addiction. A multiple hierarchical regression analysis shows non-significant results for both interaction terms, not supporting the hypothesis. Despite significant correlations among the variables, the anticipated interactions between the motivational climates and perfectionism failed to predict work addiction. Consequently, one cannot argue that performance climate increases the effect of perfectionism on work addiction or that mastery climate buffers the effect of perfectionism on work addiction.

The non-significant interaction effect with performance climate is in contrast with research that argue overwork climates facilitate work addiction among individuals high in perfectionism and findings on demanding organisational profiles increasing the positive association between perfectionism and work addiction (Mazzetti et al., 2014; Morkevičiūtė & Endriulaitienė, 2023c). Consequently, the non-significant interaction term with mastery climate contradicts research that argues mastery climate has a buffering effect on the perfectionism-work addiction association (Nerstad et al., 2020). These findings are inconsistent with prior research identifying interaction effects between job demands and job resources on work addiction (Molino et al., 2016). However, in a study by Langseth-Eide (2019) it was reported a weaker effect size for the interaction terms than in previous literature.

In combination with our non-significant results, it suggests that the relationship between job demands and job resources on work addiction may not be as pronounced as previously assumed.

The non-significant interaction term for mastery climate and perfectionism provides insight into the buffer hypothesis and the nature of loss and gain cycles on work addiction. Bakker and Demerouti (2007) state that balance between resources and demands forms a basis for employees to cope with demanding circumstances. The non-significant result indicates that the specific combination of mastery climate and perfectionism may not serve as a beneficial composition to buffer the perfectionism-work addiction association. This finding expands knowledge on the gain cycle mechanism when demands and resources interact within the organisational context. If mastery climate acts as a resource, it has the potential to attract additional resources. However, the non-significant result indicates that further resource acquisition through mastery climate may go unnoticed as a slower process than resource loss due to perfectionism (Hobfoll et al., 2018). It is plausible that the resources required to manage the association between perfectionism and work addiction outweigh potential resource gains facilitated by mastery climate. This provides insight into the variability of resource necessity across different work situations and how it associates with work addiction (Hobfoll et al., 2016). The non-significant results indicate a complex interaction between demands and resources within the organisational environment. The intricate nature of work addiction may further complicate these dynamics, as time for work tends to be a highly valued resource for work addicts (Hobfoll et al., 2018). As such investment may trigger loss cycles, there might be unidentified resource loss with a greater impact on the individual than mastery climate as a resource.

The non-significant results provide valuable insight into how the perception of the interaction terms may contribute to health-impairment and motivational processes. Although

the analysis identified a positive effect with performance climate and a negative effect with mastery climate, the confidence intervals crossing zero create uncertainty in effect directionality. This suggests that the interaction terms between the motivational climates and perfectionism may yield positive, negative, or non-existing effects (Field, 2018). For instance, work addicts tend to work harder than required as their behaviour is driven by internal motives (Porter, 1996). Research has also identified an association between mastery climate and intrinsic motivation (Nerstad et al., 2019). If mastery climate and work addiction align with internal drives, a positive interaction effect with perfectionism could potentially exist. Therefore, the perception of the motivational climates as hindrance demands, challenge demands, or resources may vary when interacting with perfectionism (Bakker & Demerouti, 2007). Mastery climate could act as a hindrance demand that prevents employees from achieving their goals or as a challenge demand. Similarly, performance climate could act as a challenge demand that motivates individuals to strive for success or as a hindrance demand. Importantly, even if both climates interact with perfectionism as challenge demands, health-impairment may still occur if the experience becomes overwhelming (Hobfoll & Shirom, 2000). A shift in perception of the climates as positive or negative traits within an organisation may have influenced the non-significant results.

It is important to note that the absence of statistical significance does not equal absence of real effects (Field, 2018). Non-significance does not necessarily discard the existence of interactions, as interaction effects between job demands and resources have exhibited non-linear patterns (Sanclemente et al., 2022). Traditional JD-R and COR research often assumes a linear relationship between demands, resources, and outcomes (Ferris et al., 2006). However, the primacy of loss principle implies a non-linear pattern where resource loss impacts individuals to a greater degree than resource gain (Hobfoll et al., 2018). It is critical to acknowledge the possibility of no complex interactions between motivational

climates and perfectionism, yet it is equally important to consider potential reasons behind the non-significant results. A non-linear pattern could be indifferent to the nature of success within a motivational climate and instead build on the general concept of investing resources for future gain or positive outcomes. If the interaction terms follow non-linear patterns, their impacts may not be detectable through conventional linear regression. While the non-significant results clearly indicate an absence of linear effects, the interactions could vary under conditions not captured by this analysis. Therefore, although the analysis did not yield significant results, these findings remain relevant with the possibility of more complex effects.

Theoretical implications

The findings of this study reveal significant associations between perfectionism, performance climate, mastery climate, and work addiction. The direction of these associations positions the variables as compatible with the categories of job demands and resources, as well as the concepts of gain and loss cycles. The study identifies contrasting patterns between performance climate and mastery climate on work addiction, similar to the previously reported association between demands and health-impairment, as well as resources and motivational processes (Bakker & Demerouti, 2007). Given the JD-R model's evolution through scholarly contributions, the findings provide valuable insight into work addiction as ill-being (Schaufeli, 2017). These patterns support previous arguments about the inclusion of work addiction within the health-impairment process of the model (Molino et al., 2016). Moreover, since JD-R and COR are well-recognised and extensively used frameworks within the occupational health research, this study provides a comprehensive view of individual and environmental factors influencing work addiction.

Despite these associations, the results show that motivational climates do not moderate the relationship between perfectionism and work addiction. Prior theoretical models assumed

that individual and contextual factors would interact to influence work addiction (Liang & Chu, 2009; Ng et al., 2007). The discrepancy between the results and existing literature suggests these relationships are more complex than previously assumed. The non-significant interaction effects challenge the JD-R model's buffer hypothesis, implying that the buffering effect may function differently for work addiction compared to other health outcomes like burnout (Bakker & Demerouti, 2007). Additionally, the non-significant interaction effects are inconsistent with the nature of gain and loss cycles within COR theory (Hobfoll et al., 2018). As with the buffer hypothesis, the mechanisms of these cycles may operate differently in relation to the intricate behaviour of work addiction.

Although the interaction effects are non-significant, the identified patterns still hold theoretical implications. The results are valuable because empirical research on interactions between individual and environmental factors in work addiction is in an early exploratory phase (Kun et al., 2021). The findings highlight the complex interplay between motivational climates and perfectionism in the organisational context. This comprehensive understanding of work addiction within the JD-R and COR frameworks contributes to future theoretical developments.

Practical implications

The research examined whether the motivational climates within organisations moderate the relationship between perfectionism and work addiction. The results contribute to understanding on the impacts of performance and mastery climate on employee well-being and ill-being. In modern workplaces, organisations frequently seek employees that are motivated to go the extra mile (Andreassen, 2014). Organisations should differentiate between adaptive and maladaptive work behaviours to prevent the latter from being promoted. If success is measured solely by performance, achievements, and high time investment, it may foster a motivational climate that reinforce maladaptive behaviours. Further positive

reinforcements through praise, recognition, or benefits may contribute to the prevalence of work addiction. Organisations should emphasise efficiency through time management, prioritisations, and boundary-setting rather than encourage overwork and overtime.

The results reflect complex relationships between the motivational climates, perfectionism, and work addiction. Perfectionism as an individualistic risk factor and work addiction as a maladaptive work behaviour, should not be viewed as isolated individual issues. Morkevičiūtė and Endriulaitienė (2023c) actualises that the greatest risk of work addiction is the entity of factors. Therefore, the behaviour must be evaluated within the organisational context and not independently. Given the high absenteeism rates in Norway, early identification for effective interventions is critical (Hemmings & Prinz, 2020). A holistic approach that addresses both individual and organisational factors on work addiction is needed (Saksvik-Lehouillier & Vaag, 2020). Organisations should establish motivational climates that reinforce adaptive behaviours. The strategy may contribute to identify perfectionistic tendencies and maladaptive habits while guiding them towards healthier patterns. The combination of prevention and promotion may be more effective in reducing absenteeism than either approach alone (OECD, 2013). A dual approach that promotes well-being and prevents ill-being could contribute to the development of a more sustainable workforce in Norway. As the nature of work has evolved with an increase in demands, simply removing job demands is insufficient as employees need adequate resources to balance individual and work conditions (Atroszko et al., 2020).

In conclusion, the results reveal that workplace conditions can affect individuals, organisations, and societies. A resource-focused approach can proactively prevent ill-being and promote well-being, as resources can make individuals more resilient to demands and better able to gain further resources (Hobfoll et al., 2018). The findings have significant

practical implications for managers, employers, and HR professionals, emphasising the impact that motivational climates have on the development of a sustainable workforce.

Limitations

The broad, non-restrictive nature of snowball sampling allowed the questionnaire to be distributed among employees from various occupational sectors, enhancing the generalisability of the findings across the Norwegian working population. However, as a form of convenience sampling the recruitment method may introduce potential biases in the findings (Meltzoff & Cooper, 2018). The snowball method led students to recruit friends and family. As 54% of the participants ranges between 40 and 59 years of age, the sample likely reflects the demographic of parents and their acquaintances. A skewed age distribution may affect the sample representativeness and the reliability of the findings (Meltzoff & Cooper, 2018).

The items used to measure perfectionism (SAPS), motivational climates (MCWQ), and work addiction (BWAS) are extracted from validated and reliable instruments. The subset of items was used to make the comprehensive questionnaire more efficient. However, the internal reliability for the perfectionism items shows $\alpha = 0.69$, slightly below the recommended threshold of 0.70 (Field, 2018). Specifically, it is the perfectionistic standards items with an $\alpha = 0.65$ that decreases the internal consistency of the instrument. This indicates that the standards items may not capture the intended construct, which compromises the overall measurement accuracy. In addition, the combination of BWAS and the self-developed items shows an $\alpha = 0.94$, close to exceed the critical value of 0.95 (Field, 2018). The high Cronbach's alpha value indicates that several items measure similar aspects of work addiction, which may inflate the statistical estimate for reliability.

The multiple hierarchical regression analysis assumed linear relationships among the variables. This method may not capture non-linear patterns or curvilinear effects, potentially

leading to an oversimplified understanding of the interactions between the variables. Linear assumptions can overlook complex relationships within the data, reducing the ability to detect meaningful patterns in how demands, resources, and work addiction interact (Sanclemente et al., 2022).

The cross-sectional design limits the ability to establish causal relationships. Collecting data at a single time point prevents conclusions about reciprocal effects and alternative explanations (Meltzoff & Cooper, 2018). Therefore, the design is practical for identifications of patterns but restricts the findings to the directions of the effects only. The design does not include a control for alternative explanations, it is possible that confounding variables such as work experience, or habits may have influenced the interactions between the variables (Kim, 2019).

Future research

The results show that the associations between performance climate, mastery climate, perfectionism, and work addiction vary in their directions of effect. Most importantly, the regressions reveal nuanced results for the interactions between motivational climates and perfectionism on work addiction that should not be neglected. It is clear that the field of work addiction should continue to explore the interactions between individual and environmental factors. However, based on the limitations of our study, future research should critically assess the construction of the research design.

First, the internal reliability of $\alpha = 0.69$ for the perfectionist items needs to be assessed. It was the perfectionistic standards items that decreased the Cronbach's alpha value below threshold, as the items for perfectionistic standards was $\alpha = 0.74$. A different subset with five SAPS items was used in a study by Rice et al. (2024). These items were reported as empirically interchangeable with a strong predictive validity for psychological outcomes. In

the future, studies should examine or replicates the alternative subset used by Rice et al. (2024) to enhance the reliability of the instruments and findings.

Second, the assumption of linearity can limit the identification of true interaction effects between variables. Belzak and Bauer (2019) state that addiction research frequently overlooks the possibilities of curvilinear relationships. Future research should explore these potential dynamics from non-linear perspectives, as this may enrich the understanding of interactions and potentially resolve inconsistencies in linear analyses.

Lastly, there is a need for higher quality research on work addiction, going beyond cross-sectional studies (Atroszko et al., 2019). A longitudinal design is more robust for examination of causal relationships and temporal dynamics between the variables. Longitudinal resources could identify how the perfectionism-work addiction association evolves over time, offering insight into the long-term effects of motivational climates on employee behaviour and well-being.

Conclusion

The study aimed to explore if the type of motivational climate at work affects the relationship between perfectionism and work addiction. The research question and hypotheses address knowledge needs, contributing with empirical research on the interactions between individual and environmental factors on work addiction. First, there were significant correlations between performance climate, mastery climate, perfectionism, and work addiction in line with the first hypothesis. Secondly, there were non-significant results for both interaction terms, not supporting the second hypothesis. The findings indicate that while performance climate, mastery climate, and perfectionism independently influence work addiction through a motivational and health-impairment process, their combined effects do not predict work addiction. In conclusion, the findings reflect complex relationships between the variables that warrant further investigations. The study recognises limitations,

recommending for future studies to critically assess the construction of the design to increase the validity and reliability of their findings. Moreover, future research should delve deeper into the intricate interaction between various resources and demands on work addiction, particularly regarding the buffer hypothesis and resource loss impact.

References

- Andreassen, C. S. (2014). Workaholism: An overview and current status of the research. *Journal of behavioral addictions*, 3(1), 1-11. <https://doi.org/10.1556/JBA.2.2013.017>
- Andreassen, C. S., Griffiths, M. D., Hetland, J., & Pallesen, S. (2012). Development of a work addiction scale. *Scandinavian journal of psychology*, 53(3), 265-272. <https://doi.org/10.1111/j.1467-9450.2012.00947.x>
- Association, A. P. (2020). *Publication manual of the American psychological association: the official guide to APA style* (7th ed.). American Psychological Association.
- Atroszko, P. A., Demetrovics, Z., & Griffiths, M. D. (2019). Beyond the myths about work addiction: Toward a consensus on definition and trajectories for future studies on problematic overworking: A response to the commentaries on: Ten myths about work addiction (Griffiths et al., 2018). *Journal of behavioral addictions*, 8(1), 7-15. <https://doi.org/10.1556/2006.8.2019.11>
- Atroszko, P. A., Demetrovics, Z., & Griffiths, M. D. (2020). Work addiction, obsessive-compulsive personality disorder, burn-out, and global burden of disease: Implications from the ICD-11. *International Journal of Environmental Research and Public Health*, 17(2), 660. <https://doi.org/10.3390/ijerph17020660>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of managerial psychology*, 22(3), 309-328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of occupational health psychology*, 22(3), 273. <https://doi.org/10.1037/ocp0000056>
- Bellali, T., Minasidou, E., Galanis, P., Karagkounis, C., Liamopoulou, P., & Manomenidis, G. (2023). Psychometric properties of the Bergen Work Addiction Scale in a Greek

- sample of health professionals. *Health Psychology Report*, *11*(2), 156.
<https://doi.org/10.5114/hpr/153494>
- Belzak, W. C., & Bauer, D. J. (2019). Interaction effects may actually be nonlinear effects in disguise: A review of the problem and potential solutions. *Addictive behaviors*, *94*, 99-108. <https://doi.org/10.1016/j.addbeh.2018.09.018>
- Buch, R., Nerstad, C. G., & Säfvenbom, R. (2017). The interactive roles of mastery climate and performance climate in predicting intrinsic motivation. *Scandinavian journal of medicine & science in sports*, *27*(2), 245-253. <https://doi.org/10.1111/sms.12634>
- Caniëls, M. C., Chiocchio, F., & van Loon, N. P. (2019). Collaboration in project teams: The role of mastery and performance climates. *International Journal of Project Management*, *37*(1), 1-13. <https://doi.org/10.1016/j.ijproman.2018.09.006>
- Černe, M., Nerstad, C. G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of management journal*, *57*(1), 172-192. <https://doi.org/10.5465/amj.2012.0122>
- Clark, M. A., Lelchook, A. M., & Taylor, M. L. (2010). Beyond the Big Five: How narcissism, perfectionism, and dispositional affect relate to workaholism. *Personality and Individual Differences*, *48*(7), 786-791. <https://doi.org/10.1016/j.paid.2010.01.013>
- Clark, M. A., Michel, J. S., Stevens, G. W., Howell, J. W., & Scruggs, R. S. (2014). Workaholism, work engagement and work-home outcomes: Exploring the mediating role of positive and negative emotions. *Stress and Health*, *30*(4), 287-300.
<https://doi.org/10.1002/smi.2511>
- Clark, M. A., Michel, J. S., Zhdanova, L., Pui, S. Y., & Baltes, B. B. (2016). All work and no play? A meta-analytic examination of the correlates and outcomes of workaholism. *Journal of Management*, *42*(7), 1836-1873.
<https://doi.org/10.1177/0149206314522301>

- Demerouti, E., & Bakker, A. B. (2011). The job demands-resources model: Challenges for future research. *SA Journal of Industrial Psychology*, *37*(2), 01-09.
<https://doi.org/doi:10.4102/sajip.v37i2.974>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499.
- Falco, A., Girardi, D., De Carlo, A., Andreassen, C. S., & Dal Corso, L. (2022). Work Addiction among Bank Employees in Italy: A Contribution to Validation of the Bergen Work Addiction Scale with a Focus on Measurement Invariance across Gender and Managerial Status. *Sustainability*, *14*(21), 13714. <https://doi.org/10.3390/su142113714>
- Falco, A., Piccirelli, A., Girardi, D., Di Sipio, A., & De Carlo, N. A. (2014). "The best or nothing": The mediating role of workaholism in the relationship between perfectionism and burnout. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, *21*(2). <https://doi.org/10.4473/TPM21.2.7>
- Ferris, G. R., Bowen, M. G., Treadway, D. C., Hochwarter, W. A., Hall, A. T., & Perrewe, P. L. (2006). The assumed linearity of organizational phenomena: Implications for occupational stress and well-being. In *Employee health, coping and methodologies* (pp. 203-232). Emerald Group Publishing Limited. [https://doi.org/10.1016/S1479-3555\(05\)05006-7](https://doi.org/10.1016/S1479-3555(05)05006-7)
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). sage.
- Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual differences*, *14*(1), 119-126. [https://doi.org/10.1016/0191-8869\(93\)90181-2](https://doi.org/10.1016/0191-8869(93)90181-2)
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive therapy and research*, *14*, 449-468.
<https://doi.org/10.1007/BF01172967>

- Girardi, D., Falco, A., De Carlo, A., Dal Corso, L., & Benevene, P. (2018). Perfectionism and workaholism in managers: the moderating role of workload. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 25(4).
<https://doi.org/10.4473/TPM25.4.7>
- Girardi, D., Falco, A., Piccirelli, A., Dal Corso, L., Bortolato, S., & De Carlo, A. (2015). Perfectionism and presenteeism among managers of a service organization: the mediating role of workaholism. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 22(4). <https://doi.org/10.4473/TPM22.4.5>
- Griffiths, M. D., Demetrovics, Z., & Atroszko, P. A. (2018). Ten myths about work addiction. *Journal of behavioral addictions*, 7(4), 845-857.
<https://doi.org/10.1556/2006.7.2018.05>
- Hemmings, P., & Prinz, C. (2020). Sickness and disability systems: comparing outcomes and policies in Norway with those in Sweden, the Netherlands and Switzerland.
<https://doi.org/10.1787/18151973>
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology. *Journal of personality and social psychology*, 60(3), 456. <https://doi.org/10.1037//0022-3514.60.3.456>
- Hobfoll, S., Tirone, V., Holmgreen, L., & Gerhart, J. (2016). Chapter 7—Conservation of Resources Theory Applied to Major Stress. *Stress: Concepts, Cognition, Emotion, and Behavior*; Fink, G., Ed, 65-71. <https://doi.org/10.1016/B978-0-12-800951-2.00007-8>
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American psychologist*, 44(3), 513. <https://doi.org/10.1037/0003-066x.44.3.513>

- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied psychology, 50*(3), 337-421. <https://doi.org/10.1111/1464-0597.00062>
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 103-128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Hobfoll, S. E., & Shirom, A. (2000). Conservation of resources theory: Applications to stress and management in the workplace. *Handbook of organization behavior, 2*, 57-81.
- JASP Team. (2024). *JASP (Version 0.18.3.0)[Computer software]*. In <https://jasp-stats.org/>
- Johns, G. (2018). Advances in the treatment of context in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 21-46. <https://doi.org/10.1146/annurev-orgpsych-032117-104406>
- Keller, A. C., Spurk, D., Baumeler, F., & Hirschi, A. (2016). Competitive climate and workaholism: Negative sides of future orientation and calling. *Personality and Individual differences, 96*, 122-126. <https://doi.org/10.1016/j.paid.2016.02.061>
- Kim, S. (2019). Workaholism, motivation, and addiction in the workplace: A critical review and implications for HRD. *Human Resource Development Review, 18*(3), 325-348. <https://doi.org/10.1177/1534484319845164>
- Kopperud, K. H., Nerstad, C. G., & Dysvik, A. (2020). Should i stay or should i go? The role of motivational climate and work–home spillover for turnover intentions. *Frontiers in Psychology, 11*, 510463. <https://doi.org/10.3389/fpsyg.2020.01107>
- Kun, B., Takacs, Z. K., Richman, M. J., Griffiths, M. D., & Demetrovics, Z. (2021). Work addiction and personality: A meta-analytic study. *Journal of behavioral addictions, 9*(4), 945-966. <https://doi.org/10.1556/2006.2020.00097>

- Langseth-Eide, B. (2019). It's been a hard day's night and I've been working like a dog: Workaholism and work engagement in the JD-R model. *Frontiers in Psychology, 10*, 448706. <https://doi.org/10.3389/fpsyg.2019.01444>
- Liang, Y.-W., & Chu, C.-M. (2009). Personality traits and personal and organizational inducements: Antecedents of workaholism. *Social Behavior and Personality: an international journal, 37*(5), 645-660. <https://doi.org/10.2224/sbp.2009.37.5.645>
- Lins de Holanda Coelho, G., Pereira Monteiro, R., Vilar, R., HP Hanel, P., Cunha Moizéis, H. B., & Gouveia, V. V. (2021). Psychometric evidence of the short Almost Perfect Scale (SAPS) in Brazil. *The Counseling Psychologist, 49*(1), 6-32. <https://doi.org/10.1177/0011000020949146>
- Mazzetti, G., Schaufeli, W. B., & Guglielmi, D. (2014). Are workaholics born or made? Relations of workaholism with person characteristics and overwork climate. *International Journal of Stress Management, 21*(3), 227. <https://doi.org/10.1037/a0035700>
- Meltzoff, J., & Cooper, H. (2018). *Critical thinking about research: Psychology and related fields*. American psychological association.
- Molino, M., Bakker, A. B., & Ghislieri, C. (2016). The role of workaholism in the job demands-resources model. *Anxiety, Stress, & Coping, 29*(4), 400-414. <https://doi.org/10.1080/10615806.2015.1070833>
- Morkevičiūtė, M., & Endriulaitienė, A. (2022). Moderating role of perceived work addiction of managers in the relationship between employees' perfectionism and work addiction: a trait activation theory perspective. *Baltic Journal of Management, 17*(5), 586-602. <https://doi.org/10.1108/BJM-03-2022-0112>

- Morkevičiūtė, M., & Endriulaitienė, A. (2023a). Defining the border between workaholism and work addiction: A systematic review. *International Journal of Mental Health and Addiction*, 21(5), 2813-2823. <https://doi.org/10.1007/s11469-022-00757-6>
- Morkevičiūtė, M., & Endriulaitienė, A. (2023b). Motivational background of work addiction: the role of perceived demanding organizational conditions. *Baltic Journal of Management*, 18(2), 190-206. <https://doi.org/10.1108/BJM-02-2022-0051>
- Morkevičiūtė, M., & Endriulaitienė, A. (2023c). The Role of an Individual and a Situation in Explaining Work Addiction: Disclosing Complex Relations. *International Journal of Environmental Research and Public Health*, 20(5), 4560. <https://doi.org/10.3390/ijerph20054560>
- Nerstad, C. G., Caniëls, M. C., Roberts, G. C., & Richardsen, A. M. (2020). Perceived motivational climates and employee energy: the mediating role of basic psychological needs. *Frontiers in Psychology*, 11, 545018. <https://doi.org/10.3389/fpsyg.2020.01509>
- Nerstad, C. G., Dysvik, A., Kuvaas, B., & Buch, R. (2018). Negative and positive synergies: On employee development practices, motivational climate, and employee outcomes. *Human Resource Management*, 57(5), 1285-1302. <https://doi.org/10.1002/hrm.21904>
- Nerstad, C. G., Roberts, G. C., & Richardsen, A. M. (2013). Achieving success at work: development and validation of the Motivational Climate at Work Questionnaire (MCWQ). *Journal of Applied Social Psychology*, 43(11), 2231-2250. <https://doi.org/10.1111/jasp.12174>
- Nerstad, C. G., Wong, S. I., & Richardsen, A. M. (2019). Can engagement go awry and lead to burnout? The moderating role of the perceived motivational climate. *International Journal of Environmental Research and Public Health*, 16(11), 1979. <https://doi.org/10.3390/ijerph16111979>

- Ng, T. W., Sorensen, K. L., & Feldman, D. C. (2007). Dimensions, antecedents, and consequences of workaholism: A conceptual integration and extension. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 28(1), 111-136.
<https://doi.org/10.1002/job.424>
- Nilsen, Ø. A. (2020). The Labor Market in Norway: 2000-2018. *NHH Dept. of Economics Discussion Paper(04)*. <https://openaccess.nhh.no/nhh-xmlui/bitstream/handle/11250/2650454/DP%2004.pdf?sequence=1>
- Nordin-Bates, S. M., Hill, A. P., Cumming, J., Aujla, I. J., & Redding, E. (2014). A longitudinal examination of the relationship between perfectionism and motivational climate in dance. *Journal of Sport and Exercise Psychology*, 36(4), 382-391.
<https://doi.org/10.1123/jsep.2013-0245>
- Norwegian Ministry of Finance. (2021). Long-term Perspectives on the Norwegian Economy 2021
<https://www.regjeringen.no/contentassets/91bdfca9231d45408e8107a703fee790/engpdfs/stm202020210014000engpdfs.pdf>
- Oates, W. E. (1968). On being a “Workaholic” A serious jest. *Pastoral Psychology*, 19(8), 16-20. <https://doi.org/10.1007/BF01785472>
- Oates, W. E. (1971). *Confessions of a workaholic: The facts about work addiction*. World Publishing Company.
- Ocampo, A. C. G., Wang, L., Kiazad, K., Restubog, S. L. D., & Ashkanasy, N. M. (2020). The relentless pursuit of perfectionism: A review of perfectionism in the workplace and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 144-168.
<https://doi.org/10.1002/job.2400>
- OECD. (2013). *Mental Health and Work: Norway*. <https://doi.org/10.1787/9789264178984-en>

- Pannhausen, S., Klug, K., & Rohrmann, S. (2022). Never good enough: The relation between the impostor phenomenon and multidimensional perfectionism. *Current Psychology*, 1-14. <https://doi.org/10.1007/s12144-020-00613-7>
- Porter, G. (1996). Organizational impact of workaholism: suggestions for researching the negative outcomes of excessive work. *Journal of occupational health psychology*, 1(1), 70. <https://doi.org/10.1037//1076-8998.1.1.70>
- Rice, K. G., Richardson, C. M., & Tueller, S. (2014). The short form of the revised almost perfect scale. *Journal of personality assessment*, 96(3), 368-379. <https://doi.org/10.1080/00223891.2013.838172>
- Rice, K. G., Wang, Q., Wetstone, H., Bulbulia, J., Sibley, C. G., & Davis, D. E. (2024). The Even Shorter Almost Perfect Scale: Psychometric Evaluation and Cross-National Implications for Psychological Outcomes. *Journal of personality assessment*, 1-16. <https://doi.org/10.1080/00223891.2024.2310010>
- Saksvik-Lehouillier, I., & Vaag, J. R. (2020). *Praktisk organisasjonspsykologi*. Gyldendal.
- Sanclemente, F. J., Gamero, N., Arenas, A., & Medina, F. J. (2022). Linear and non-linear relationships between job demands-resources and psychological and physical symptoms of service sector employees. When is the midpoint a good choice? *Frontiers in Psychology*, 13, 950908. <https://doi.org/10.3389/fpsyg.2022.950908>
- Schaufeli, W. B. (2017). Applying the Job Demands-Resources model: A 'how to' guide to measuring and tackling work engagement and burnout. *Organizational dynamics*, 46(2), 120-132. <https://doi.org/10.1016/j.orgdyn.2017.04.008>
- Schaufeli, W. B., Bakker, A. B., Van der Heijden, F. M., & Prins, J. T. (2009). Workaholism, burnout and well-being among junior doctors: The mediating role of role conflict. *Work & Stress*, 23(2), 155-172. <https://doi.org/10.1080/02678370902834021>

- Schaufeli, W. B., Shimazu, A., & Taris, T. W. (2009). Being driven to work excessively hard: The evaluation of a two-factor measure of workaholism in the Netherlands and Japan. *Cross-cultural research, 43*(4), 320-348. <https://doi.org/10.1177/1069397109337239>
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr Jekyll or Mr Hyde? On the differences between work engagement and workaholism. *Research companion to working time and work addiction, 193*.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual review of psychology, 64*, 361-388. <https://doi.org/10.1146/annurev-psych-113011-143809>
- Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human relations, 50*(3), 287-314.
- Shimazu, A., Schaufeli, W. B., Kamiyama, K., & Kawakami, N. (2015). Workaholism vs. work engagement: The two different predictors of future well-being and performance. *International journal of behavioral medicine, 22*, 18-23. <https://doi.org/10.1007/s12529-014-9410-x>
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of personality assessment, 58*(1), 160-178. https://doi.org/10.1207/s15327752jpa5801_15
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and social psychology review, 10*(4), 295-319.
- Work Addiction. (2024). *Definition and symptoms*. Retrieved 07.03 from <https://workaddiction.org/definitions-symptoms/>



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