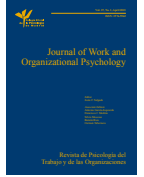




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## Heavy Work Investment, Workaholism, Servant Leadership, and Organizational Outcomes: A Study among Italian Workers

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### ABSTRACT

Heavy Work Investment (HWI) is a construct that comprises both workaholism and work engagement. We tested a path analysis model on 364 Italian workers, with servant leadership as a predictor of HWI and HWI as a predictor of Organizational Citizenship Behaviors (OCB) and Counterproductive Work Behaviors (CWB). We also performed ANOVAs and MANOVAs. Among the main findings, servant leadership is a positive predictor of both workaholism and work engagement. Work engagement is a positive predictor of OCB and a negative predictor of CWB. Conversely, workaholism, is a positive predictor of CWB, but it does not predict OCB. Hence, we encourage implementing soft-skills interventions aimed at making leaders aware of the different worker types in their organization to develop tailored measures to foster work engagement rather than workaholism. Also, we recommend controlling for work engagement when analyzing workaholism, given the different findings that arose when controlling or not controlling for work engagement.

### La inversión en trabajo pesado, la adicción al trabajo, el liderazgo de servicio y los resultados organizativos: un estudio en trabajadores italianos

### RESUMEN

La inversión en trabajo pesado (ITP) es un constructo que abarca la adicción al trabajo y la implicación en el mismo. Pusimos a prueba un modelo de análisis de trayectorias con 364 trabajadores italianos utilizando el liderazgo de servicio como predictor de la ITP y esta como predictora a su vez de comportamientos de ciudadanía organizativa (CCO) y de comportamientos contraproductivos en el trabajo (CCT). Llevamos a cabo también ANOVA y MANOVA. Entre los resultados obtenidos está que el liderazgo de servicio predice positivamente el CCO y negativamente la implicación en el trabajo. Por el contrario, la adicción al trabajo predice positivamente el CCT pero no el CCO. De este modo proponemos llevar a cabo intervenciones en destrezas “blandas”, que hagan conscientes a los líderes de los diferentes tipos de trabajadores en su empresa para desarrollar medidas adaptadas, que potencien la implicación en el trabajo antes que la adicción al mismo. También recomendamos que se controle la implicación en el trabajo al estudiar la adicción al mismo, siendo el resultado diferente si ese control se produce o no.

#### Palabras clave:

Adicción al trabajo

Implicación en el trabajo

Comportamientos

contraproductivos en el trabajo

Comportamientos disfuncionales en el trabajo

Snir and Harpaz (2012) introduced the concept of heavy work investment (HWI) to describe a high investment of time and energy in work while emphasizing that not all heavy work investors (HWIs) are workaholics. In fact, as later pointed out by Loscalzo and Giannini (2017), the concept of HWI includes both workaholism and work engagement. In this respect, it is initially helpful to clarify the definitions of the two primary categories of HWI – workaholism and work engagement – which we will refer to in our study and distinguish between them (see Salanova et al., 2014). In brief, “workaholism” is characterized by working excessively hard and long hours, while “work engagement” has been defined as the level of enthusiasm and dedication workers feel toward their job (Smith

et al., 2022). Notably, workers’ high work motivation expresses itself cognitively, emotionally, and physically (May et al., 2004).

More specifically, Snir and Harpaz (2012) defined six subtypes of HWIs: two motivated by situational circumstances and four by their disposition. The situational subtypes include ‘the needy’ (who need to support a large family or are in debt) and ‘the employer directed’ (who overwork, like hospital physicians, due to their job characteristics). The subtypes of disposition include the ‘workaholics,’ the ‘work devoted’ (passionate about their work), ‘the intimacy-avoider’ (who works to avoid intimacy and close relationships), and the ‘leisure-low-interested’ (for whom the job is a substitute for tedious leisure time).

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Based on a thorough analysis of the workaholism literature, [Loscalzo and Giannini \(2017\)](#) suggested a comprehensive model that adopts a clinical perspective and supports a unified definition of workaholism, given the high number of definitions and instruments available and the lack of a shared conceptualization by the scientific community ([Giannini & Loscalzo, 2016](#)).

Notably, [Loscalzo and Giannini \(2017\)](#) defined workaholism as a clinical condition. They characterized workaholism by 'externalizing' symptoms (i.e., addiction) and 'internalizing' (i.e., obsessive-compulsive) symptoms and either high or low levels of work engagement. Moreover, they advocated merging the HWI framework with the evidence concerning the importance of distinguishing between engaged workers and workaholics ([Salanova et al., 2014](#)) as well as between functional and dysfunctional workaholics ([Malinowska & Tokarz, 2014](#); [Van Beek et al., 2011](#)).

In brief, [Loscalzo and Giannini \(2017\)](#) proposed four types of workers, three of which fall under the category of HWIs: (1) "disengaged workaholics" (having high workaholism and low work engagement); (2) "engaged workaholics" (who have high levels of both workaholism and work engagement); (3) "engaged workers" (characterized by high work engagement and low workaholism); 4) and the fourth type concerns the "detached workers" who are not HWIs as they have low workaholism and low work engagement levels. [Loscalzo and Giannini \(2017\)](#) emphasized distinguishing between disengaged and engaged workaholics, since each type might have different relationships with the same variables, a premise supported by [Spagnoli et al. \(2018\)](#). This distinction is essential as it helps clarify some inconsistent findings of previous research on workaholism ([Loscalzo & Giannini, 2017](#)).

## Organizational Antecedents and Outcomes

[Loscalzo and Giannini's \(2017\)](#) model lists several individual and situational antecedents and outcomes. For instance, individual antecedents include personality traits and psychiatric disorders, and situational antecedents include an overwork climate in the family or the organization. Among workaholism outcomes are health impairment, work-family conflict (at the individual level), aggressive behaviors, and low OCB (at the situational level).

Notably, studies conducted on workaholism using [Loscalzo and Giannini's \(2017\)](#) model and instrument ([Loscalzo and Giannini, 2019b](#)) have not addressed organizational variables. Significantly, however, [Loscalzo and Giannini \(2020\)](#) initiated the focus on internalizing and externalizing symptoms as potential antecedents and outcomes of HWI. They showed that while workaholism is associated with higher psychopathology, work engagement is related to higher psychological well-being.

Moreover, in their research, [Loscalzo and Giannini \(2020\)](#) observed that 'sensation-seeking' does not predict workaholism, and that among the various internalizing and externalizing variables analyzed, workaholism is predicted only by psychoticism. Consequently, they suggested that the definition of workaholism as a behavioral addiction might not be adequate – providing support for considering other explanations. For instance, the results of their studies indicate that workaholism might (better) be conceptualized as the manifestation at work of a personality disorder (such as a schizoid or obsessive-compulsive personality disorder).

Subsequently, [Loscalzo \(2021\)](#) conducted a study among teachers involved in distance-learning teleworking during the COVID-19 pandemic. Her results highlighted that workaholism predicted work-family conflict, negative affect, and an adverse impact of teleworking on the teachers' work and life. By contrast, work engagement was a "negative" predictor of those variables and a positive predictor of the perceived efficacy of distance learning.

Hence, the present study aims to shed light on situational organizational antecedents and outcomes. With regard to situational organizational antecedents, the literature showed that leadership style might play a role in fostering HWI. For example, [Endriulaitienė and Morkevičiūtė \(2020\)](#) found an association between transformational leadership and workaholism, while [Andreassen et al. \(2019\)](#) showed that workaholism is associated with laissez-faire leadership, even if the beta value is low. With regard to work engagement, however, the positive impact of ethical leadership ([Shah et al., 2022](#)) has been highlighted. Nevertheless, the present study focuses on servant leadership since – to the best of the authors' knowledge – it has been less studied in the literature than other types of leadership. For example, a previous study by [Sousa and Van Dierendonck \(2017\)](#) showed the high impact of the humility component of servant leadership on followers' work engagement, although they did not evaluate its impact on workaholism. However, servant leadership is somewhat unique (see Section 1.3) and deserves further investigation by the HWI literature.

With regard to HWI outcomes, we chose organizational citizenship behaviors (OCB) and counterproductive work behaviors (CWB) focused in two directions: (1) towards coworkers/individuals (i.e., OCB-I and CWB-I) and (2) the organization (i.e., OCB-O and CWB-O).

## Servant Leadership

The concept of servant leadership, introduced by [Greenleaf \(1977\)](#), differs from other types of leadership, such as transformational leadership, in that the leader is genuinely interested in followers instead of organizational objectives ([Graham, 1991](#); [Stone et al., 2004](#)). Servant leaders use persuasion (instead of power) to motivate followers and might be described as stewards who hold the organization in trust ([Reinke, 2004](#)).

In line with [Greenleaf's \(1977\)](#) suggestion that the servant leaders' followers are positively transformed in multiple ways, [Sendjaya \(2015\)](#) emphasized that servant leadership comprises various components – rational, relational, ethical, emotional, and spiritual – which provide leaders and followers with the best opportunities to become what they can. Following [Luthans and Avolio \(2003\)](#), servant leaders aim to create opportunities for their followers to grow.

[Sendjaya et al. \(2019\)](#) further highlighted that followers are not transformed into an exact copy of their leaders (or a better version of themselves) because the servant leader empowers them to explore and develop all the facets of their self to their maximum so they may become what they are. Hence, unlike scholars who tend to neglect the spiritual domain, [Sendjaya et al.](#) concluded that this is the dimension that distinguishes servant leadership from other types of leadership.

Because the servant leader encourages employees to become what they are and they might therefore fully develop their underlying propensity for HWI, we hypothesized (taking into account that other types of leadership might be associated with HWI) the following concerning servant leadership:

*H1: Servant leadership fosters work engagement and workaholism (i.e., it is a positive predictor of HWI).*

## Organizational Outcomes: OCB and CWB

With regard to organizational outcomes, we selected both a positive variable (OCB) and a negative variable (CWB). OCB has been widely analyzed in the organizational field – [Tziner and Sharoni \(2014\)](#) counted 400 such publications.

OCB encompasses work-related behaviors that are not strictly related to the task and, therefore, not formally required by the job and are unrewarded. However, even when voluntary, OCB plays a critical role in shaping the social and psychological context,

with consequent benefits for the organization's functioning and its members (Borman & Motowidlo, 1993; Organ, 1997; Podsakoff et al., 2009). OCB may be directed towards coworkers/individuals (OCB-I) – for example, helping a colleague without being asked – and towards the organization (OCB-O) – such as talking positively about the organization with outsiders (Urbini et al., 2020; Williams & Anderson, 1991).

McNeely and Meglino (1994) recommended distinguishing between OCB-I and OCB-O as they might have different relationships with the same variables. For example, they found that employees' job cognition (in the form of reward equity and recognition) is associated with OCB-O only. Other scholars suggested that OCB-I and OCB-O have equivalent relationships with predictors and correlates; nevertheless, they underlined that it was too early to confirm that the two OCB dimensions have the same causes and consequences (LePine et al., 2002; Podsakoff et al., 2009). Hence, we evaluated OCB-I and OCB-O separately to analyze the HWI effect on OCB.

CWB is one of the most significant issues that organizations face (Chappell & Di Martino, 2006). CWB refers to those volitional acts that harm or are intended to damage the organization per se (CWB-O) as well as colleagues, supervisors, and clients (CWB-I) (Gruys & Sackett, 2003; Spector & Fox, 2005). CWB includes overt acts (e.g., aggression) and covert behavior (e.g., deliberately working incorrectly). When directed at individuals, CWB may take the form of verbal insults or withholding important information from colleagues; when directed towards the organization (CWB-O), the person might intentionally work slowly or take long breaks (Robinson & Bennett, 1995; Spector et al., 2006).

CWB originates both from personality traits and organizational factors (Bowling & Eschleman, 2010; Fox et al., 2001). Notably, Bruk-Lee and Spector (2006) highlighted that while conflicts with coworkers tend to be associated with CWB-I, conflict with a supervisor is more likely to be associated with CWB-O.

Previous studies have shown that CWB-O and CWB-I, even if conceptually different, tend to occur concurrently (e.g., Dalal, 2005; Judge et al., 2006). The relationship between the two categories, however, is generally moderate, revealing specific patterns of association with organizational variables (Fida et al., 2014). Therefore, in our study, we analyzed the effect of HWI on CWB, distinguishing between CWB-I and CWB-O.

Based on previous literature showing that work engagement is associated with positive organizational outcomes, such as higher performance and OCB (e.g., Bakker & Bal, 2010; Urbini et al., 2020; Yalabik et al., 2015), we therefore hypothesize the following:

**H2:** Work engagement is associated with higher OCB and lower CWB both towards the individual and the organization.

With regard to workaholism, the findings are inconsistent regarding its effect on the organization. The literature has highlighted several disadvantages of workaholism for the organization, such as lower work performance, lower OCB, and higher aggressive workplace behaviors (e.g., Aziz et al., 2020; Balducci et al., 2012; Birkeland & Buch, 2015; Choi, 2013; Shimazu et al., 2015). However, there are advantages for the organization, such as lower job turnover intentions and higher innovative behaviors (e.g., Choi, 2013).

Loscalzo and Giannini (2017) suggested that these discordant findings reflect the lack of distinction between engaged and disengaged workaholics (see above). Hence, by performing a path analysis that controls for the effect of the variables included in the model, we explored the predictive value of workaholism on OCB and CWB, aware that the literature indicates that that variable is generally associated with adverse outcomes (Loscalzo & Giannini, 2017; Tabak et al., 2021). Therefore, our third hypothesis is as follows:

**H3:** Workaholism is negatively associated, if at all, with OCB, and positively with CWB.

Finally, we also explore whether there are differences in servant leadership, OCB, and CWB among males and females, as well as

between workers scoring extremely high (as a 'clinical' group) on workaholism and work engagement and workers scoring extremely low on HWI. In fact, Eagly's (1987) social role theory posits that socially determined beliefs about features that are appropriate to gender translate into differences in behaviors between men and women. Eagly et al. (1995) highlights that gender-based expectations are also present in the workplace. More specifically, Beauregard (2012) suggests that gender difference might arise in OCB: since OCB refers to behaviors that favors the improvement of the social context of the organization, greater OCB might be expected in women when compared with men. In line with this, a number of studies supported higher OCB in women (e.g., Allen & Rush, 2001; Beauregard, 2012; Farrel & Finklestein, 2007). Therefore, as CWB is a negative behavior in organizations, we might speculate that it will be lower in females than males. Hence, we posit the following hypothesis:

**H4:** Women have higher OCB and lower CWB than men.

With regard to servant leadership, to the best of the authors' knowledge, there are no studies concerning gender differences in followers' perception about the servant leadership of their leader. However, since this perception is not related to employee behavior, we do not speculate about gender-related difference for this organizational variable.

## Method

### Participants

We recruited 364 Italian workers to the study (67.0% females) aged between 23 and 67 years ( $M = 47.67 \pm 11.13$ ) across 11 organizations (72% of the participants) located in Tuscany (45.6%), Umbria (19%), Veneto (3.6%), and Emilia-Romagna (3.8%), and the general population (28% of the participants). The workers were employees of four schools, a geotechnical laboratory, and organizations operating in leather goods, food, personal/household hygiene, and a cooperative. Most participants had attended secondary school (40.1%) or gained a university degree (bachelor's: 6.9%, master's: 34.1%); 13.5% of workers held a postgraduate degree, and just 1% had not continued their studies after elementary (1.0%) or middle (4.4%) school.

Most of the participants were professional employees (78.6%) or manual workers (12.9%) with full-time (87.9%) and permanent (82.1%) contracts. Their working years ranged between 1 and 43 ( $M = 19.11 \pm 12.77$ ), while they worked between 4 and 60 ( $M = 33.42 \pm 11.19$ ) hours per week. Finally, more than half of the participants (57.1%) declared they worked in their free time more than once per month.

To maintain anonymity, we did not ask for personal information, and participants completed the online questionnaire (disseminated through the mailing lists of the organizations) in their own time, whenever and wherever they wanted.

### Procedure

First, we obtained research approval from the Ethical Committee of the University of Florence and the heads of the 11 organizations that agreed to participate in the research by distributing the link for the online questionnaire among their employees. We then sent the link to the organizations and distributed it across social networks.

The questionnaire comprised preliminary questions about sociodemographic data (e.g., gender and age), the WI-10, the SLBS-6, the OCB scale, and the CWB-C (see Section 2.3). With regard to informed consent, we reported the related information on the first page of the online questionnaire. We then asked participants to check a box confirming that they agreed to participate in the research by filling out the questionnaire on the following pages in complete confidentiality.



## Instruments

### **Work-related Inventory (WI-10; Loscalzo & Giannini, 2019b)**

The WI-10 is a brief self-report instrument that evaluates workaholism and work engagement. Moreover, it allows for distinguishing between high/low workaholism/work engagement and detecting the four worker types: (1) engaged workers, (2) detached workers, (3) engaged workaholics, and (4) disengaged workaholics.

Each scale comprises four items with an addition of one filler item not included in the scoring. The participants answer each item through a 5-point Likert scale ranging between 1 (*completely disagree*) and 5 (*completely agree*). For example, on workaholism: "Sometimes I think about how I could spend more time working" ( $\alpha = .63$ ), and on work engagement: "Usually I find working very pleasurable" ( $\alpha = .83$ ). Additionally, the respondents were requested to answer several questions about their school education and working habits. Loscalzo and Giannini (2019b) demonstrated that the WI-10 has good psychometric properties for measuring workaholism and work engagement in Italian workers.

### **Servant Leadership Scale – Short Form (SLBS-6)**

The SLBS-6 is the short form of the 35-item original version by Sendjaya et al. (2008). More specifically, Sendjaya et al. (2019) selected one item per each of the six dimensions evaluated by the 35-item scale: voluntary subordination, authentic self, covenantal relationship, responsible morality, transcendental spirituality, and transforming influence. The response format is a 5-point Likert scale ranging between 1 (*completely disagree*) and 5 (*completely agree*). An example of the items is: "Uses power in service to others, not for his or her ambition." Previous studies conducted with seven samples from Australia and Indonesia indicate that the SLBS-6 demonstrates strong reliability, as shown in consistent Cronbach's alpha above .80 across all samples (Sendjaya et al., 2019).

Based on the analyses conducted through seven different studies, Sendjaya et al. (2019) concluded that the SLBS-6 has strong psychometric properties and is the shortest holistic measure of servant leadership available in the literature. Since in the literature, there was no available Italian validation of the SLBS-6, after having asked permission to translate the scale, we translated the SLBS-6 into the Italian language. Then, before using it in the current study, we evaluated its main psychometric properties in our sample of Italian workers. The confirmatory factor analysis showed a satisfactory fit for the one-factor model: GFI = .91, CFI = .94, RMSEA = .159. The fit was improved by allowing the (positive) errors' correlation between items 2 and 3 and between items 5 and 6 (as indicated by the modification indices' suggestions): GFI = .97, CFI = .98, RMSEA = .107. Moreover, all the items load statistically significantly on the factor, with standardized values ranging between .66 (item 1) and .89 (item 4). Finally, Cronbach's alpha was high (.91).

### **Organizational Citizenship Behaviors Scale (OCBS)**

We administered the Italian version (Urbini et al., 2020) of the scale designed by Lee and Allen (2002) from a pool of items included in previous OCB instruments. It consists of 16 items to be rated on a 7-point Likert scale ranging between 1 (*never*) and 7 (*always*). There are two sub-scales, each of eight items: OCB towards individuals/coworkers (OCB-I) and OCB towards the organization (OCB-O). A sample item of OCB-I is: "Assists others with their duties," and a sample item of OCB-O is "Keeps up with developments in the organization." In the present study, the scale's reliability was high for both OCB-I (Cronbach's alpha = .87) and OCB-O (Cronbach's alpha = .88).

Reviewing their analyses, Lee and Allen (2002) demonstrated that the two-factor model is better than the one-factor model. Moreover, the two OCB scales demonstrated strong internal reliability, as Urbini et al. (2020) found for their Italian version.

### **Counterproductive Work Behaviors Checklist (CWB-C)**

The participants completed the 27-item Italian version (Barbaranelli et al., 2013) of the CWB-C, a scale designed by Spector et al. (2006) for evaluating CWB targeted at individuals (CWB-I) and the organization (CBW-O). The original CWB-C (Spector et al., 2006) has 45 items; however, the psychometric analyses conducted on the Italian version supported a shortened version (Barbaranelli et al., 2012).

The response format is a 5-point Likert scale ranging between 1 (*never*) and 5 (*every day*). Example of an item for CWB-O: "Purposely wasted your employer's materials/supplies," and for CBW-I: "Insulted someone about their job performance." Reliability estimates for the two CWB factors were derived using Cronbach's alpha on the total sample. Alphas were equal to .80 and .89 for CWB-O and CWB-P.

## Data Analysis

We conducted the analyses using SPSS.28 and AMOS.28. Then we analyzed skewness and kurtosis values and found that the two CWB-C scales had a high kurtosis value, especially for CWB-I (i.e., 39.30). Analyzing the two CWB-C scales for outliers, we found two subjects scoring remarkably higher than the other participants for each scale (a total of four outliers). Therefore, we removed these four outliers and substituted them through the missing cases' procedure (regression method; Heymans & Eekhout, 2019). The kurtosis value for the CWB-O scale is still above the cut-off of 5 suggested by Bentler (2005), at 9.79. However, in line with Loscalzo and Giannini (2019b), we decided to retain it, considering that it is not a predictor in the model. Hence, we analyzed the zero-order correlations among the seven variables in the path analysis.

We then tested the path analysis, employing the maximum likelihood estimate method, to evaluate (1) the role of servant leadership on workaholism and work engagement and (2) the effect of workaholism and work engagement on OCB and CWB towards both coworkers and the organization.

To evaluate the fit of the model, we used the following indices and cut-off values: the  $\chi^2/df$  ratio, which indicates a good fit if its value is less than 3 (Byrne, 2010); the goodness-of-fit index (GFI) and the comparative fit index (CFI) whose cut-offs are < .90 lack of fit, .90-.95 good fit, and > .95 excellent fit (Hu & Bentler, 1999); and the root mean square error of approximation (RMSEA), where a value below .05 indicates an excellent fit, while values between .05 and .08 indicate an acceptable fit (Reeve et al., 2007).

Next, we evaluated whether there were differences (1) between males and females and (2) between workers with high and low levels of workaholism/work engagement on servant leadership, OCB, and CWB through ANOVAs (for servant leadership) and MANOVAs (for OCB and CWB). To create the high/low workaholism/work engagement groups, we used the Italian cut-off scores provided by Loscalzo and Giannini (2019a). More specifically, a score of 4 corresponds to low workaholism, while scores between 11 and 20 to high workaholism. For work engagement, a score between 4 and 9 indicates low work engagement, while scores between 18 and 20 stand for high work engagement.

### **Common-method Variance (CMV) Bias Analysis**

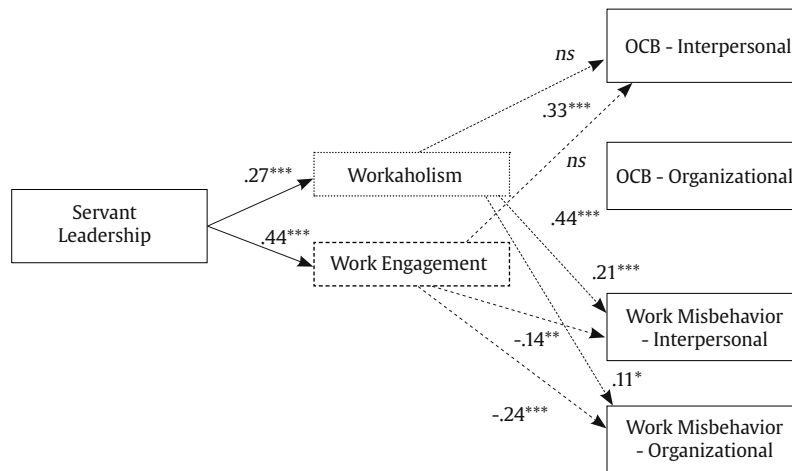
Two methodologies were employed to test for the extent of possible common-method variance (CMV) bias, accounting for variable intercorrelations in the results (Podsakoff et al., 2003). The

**Table 1.** Zero-order Correlations of the Variables Included in the Path Analysis Model ( $n = 364$ )

	1	2	3	4	5	6	7
1. Workaholism	-						
2. Work Engagement	.23***	-					
3. Servant Leadership	.27***	.44***	-				
4. OCBs Individuals	.10	.34***	.17***	-			
5. OCBs Organizations	.18***	.46***	.32***	.65***	-		
6. CWBs Individuals	.17***	-.09	-.05	-.08	-.02	-	
7. CWBs Organizations	.05	-.22***	-.002	-.10	-.10	.45***	-

Note. OCB = organizational citizenship behaviors; CWB = counterproductive work behaviors.

\*\*\* $p \leq .001$ .

**Figure 1.** Path Analysis Model. Standardized Path Estimates.

Note. ns = the path is not statistically significant.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

methods were: (1) the Harman single-factor model (all items are loaded into one common/marker factor) and (2) a common latent factor (CLF) method (all items are loaded into both their expected factors and one latent common method factor). Based on the Harman single-factor model, we noticed that the results of the analysis accounted for only 18.26% of the explained variance (fit indices are suggested by, for example, Byrne, 2010; Shkoler & Kimura, 2020; Shkoler, Rabenu, et al., 2021; Shkoler, Tziner, et al., 2021):  $\chi^2(1, 652) = 9,436.86$ ,  $p = .000$ ,  $\chi^2/df = 5.71$ , CFI = .31, NFI = .27, NNFI = .29, GFI = .39, SRMR = .14, RMSEA (90% CI) = .11 [.10, .12],  $p$ -close = .000. Further, the CLF alternative model produced 17.09% of the explained variance:  $\chi^2(1, 651) = 8,887.68$ ,  $p = .000$ ,  $\chi^2/df = 5.38$ , CFI = .36, NFI = .32, NNFI = .34, GFI = .43, SRMR = .13, RMSEA (90% CI) = .11 [.10, .12],  $p$ -close = .000. While these findings do not entirely exclude the possibility of same-source bias (CMV), following Podsakoff et al. (2003), we note that if the explained variance accounted for by the single factor is less than 50% (i.e.,  $R^2 < .50$ ) – in conjunction with a poor model fit for each analysis – then this is a firm indication that CMV is an improbable confound to our findings, even if it cannot be wholly disputed in cross-sectional data (see Section 5: Conclusions).

## Results

### Path Analysis Model

As shown by Table 1, workaholism has statistically significant and positive correlations with servant leadership, OCB-O, and CWB-I.

Work engagement positively correlates with servant leadership and both the OCB scales, and it is negatively correlated with CWB-O.

Next, we tested the model with workaholism and work engagement as outcomes of servant leadership and predictors of OCB and CWB. The model showed a good fit to the data:  $\chi^2/df = 2.57$ ,  $p = .017$ , GFI = .99; CFI = .98, RMSEA = .066, 90% CI = [.026, .107]. More specifically, the model explains a good amount of variance for OCB-O (21.7%), work engagement (19%), and OCB-I (11.3%). With regard to the other variables, the percentage of variance explained is 7% for workaholism, 5.8% for CWB-O, and 4.9% for CWB-I. Finally, regarding the standardized path estimates (see Figure 1), servant leadership positively predicts both workaholism ( $\beta = .27$ ,  $p < .001$ ) and work engagement ( $\beta = .44$ ,  $p < .001$ ). Workaholism positively predicts CWB towards coworkers ( $\beta = .21$ ,  $p < .001$ ) and, marginally, the organization ( $\beta = .11$ ,  $p = .042$ ), while it does not predict OCB. Work engagement predicts all the OCB and CWB variables. More specifically, work engagement is a positive predictor of OCB towards coworkers ( $\beta = .33$ ,  $p < .001$ ) and the organization ( $\beta = .44$ ,  $p < .001$ ), but it is a negative predictor of CWB towards coworkers ( $\beta = -.14$ ,  $p = .007$ ) and the organization ( $\beta = -.24$ ,  $p < .001$ ).

### ANOVAs and MANOVAs

We performed three ANOVAs to evaluate whether there were differences in the levels of perceived servant leadership among males and females and workers with high/low levels of workaholism/work engagement. Table 2 shows the results of these analyses that

**Table 2.** Descriptive Statistics and ANOVA Results for Servant Leadership by Gender, Workaholism, and Work Engagement

Dependent variable	Group	<i>n</i>	<i>M</i> ± <i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>	$\eta_p^2$
Gender	Male	120	18.82 ± 6.14	0.72	1, 362	<i>ns</i>	.002
	Female	244	19.38 ± 5.81				
	Total	364	19.19 ± 5.92				
Workaholism	Low	32	16.16 ± 7.13	18.25	1, 92	< .001	.17
	High	62	21.48 ± 4.86				
	Total	94	19.67 ± 6.24				
Work Engagement	Low	25	13.80 ± 7.08	55.61	1, 85	< .001	.40
	High	62	23.29 ± 4.53				
	Total	87	20.56 ± 6.87				

**Table 3.** Descriptive Statistics and Follow-up ANOVAs Results for OCB by Gender, Workaholism, and Work Engagement

OCBs	Dependent variable	Group	<i>n</i>	<i>M</i> ± <i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>	$\eta_p^2$
Individuals	Gender	Male	120	41.82 ± 9.31	3.93	1, 362	.048	.01
		Female	244	43.78 ± 8.69				
		Total	364	43.13 ± 8.94				
	Workaholism	Low	32	42.09 ± 11.14	1.67	1, 92	<i>ns</i>	.02
		High	62	44.82 ± 8.88				
		Total	94	43.89 ± 9.73				
	Work Engagement	Low	25	39.00 ± 12.01	17.60	1, 85	< .001	.17
		High	62	47.45 ± 6.63				
		Total	87	45.02 ± 9.29				
Organization	Gender	Male	120	42.07 ± 10.49	0.007	1, 362	<i>ns</i>	.000
		Female	244	42.16 ± 9.03				
		Total	364	42.13 ± 9.52				
	Workaholism	Low	32	40.19 ± 12.22	6.93	1, 92	.010	.07
		High	62	45.69 ± 7.97				
		Total	94	43.82 ± 9.91				
	Work Engagement	Low	25	35.96 ± 12.18	41.46	1, 85	< .001	.33
		High	62	48.64 ± 6.16				
		Total	87	45.00 ± 10.08				

indicate there is no gender-related difference in servant leadership. However, the ANOVAs showed that workers with high (or 'clinical') workaholism and high work engagement tend to perceive higher servant leadership in their leaders than those with low workaholism and work engagement.

Next, we conducted six MANOVAs to analyze gender and workaholism/work engagement differences on OCB and CWB, towards both individuals and the organization. First, with regard to gender, the multivariate tests showed a statistically significant effect on both OCB,  $F(2, 361) = 3.25$ ,  $p = .040$ , partial  $\eta_p^2 = .02$ , and CWB,

**Table 4.** Descriptive Statistics and Follow-up ANOVAs Results for Counterproductive Work Behaviors (CWBs) by Gender, Workaholism, and Work Engagement

CWBs	Dependent variable	Group	<i>n</i>	<i>M</i> ± <i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>	$\eta_p^2$
Individuals	Gender	Male	120	15.52 ± 2.90	8.03	1, 362	.005	.02
		Female	244	14.78 ± 1.98				
		Total	364	15.02 ± 2.34				
	Workaholism <sup>1</sup>	Low	32	14.53 ± 1.56	-	-	-	-
		High	62	15.60 ± 3.45				
		Total	94	15.24 ± 2.98				
	Work Engagement	Low	25	16.63 ± 3.70	6.76	1, 85	.011	.07
		High	62	14.94 ± 2.26				
		Total	87	15.42 ± 2.84				
Organization	Gender	Male	120	16.05 ± 3.27	17.33	1, 362	< .001	.05
		Female	244	14.79 ± 2.39				
		Total	364	15.21 ± 2.77				
	Workaholism <sup>a</sup>	Low	32	15.31 ± 2.91	-	-	-	-
		High	62	15.34 ± 3.13				
		Total	94	15.33 ± 3.04				
	Work Engagement	Low	25	17.40 ± 4.32	14.79	1, 85	< .001	.15
		High	62	14.63 ± 2.36				
		Total	87	15.42 ± 3.28				

Note. <sup>1</sup>The multivariate test is not statistically significant.

$F(2, 361) = 9.27, p < .001, \eta_p^2 = .05$ . Then, follow-up ANOVAs showed a statistically significant difference between men and women on OCB towards coworkers and CWB towards coworkers and the organizations: women score higher than men on OCB-I, while they score lower than men on CWB-I and CWB-O.

Regarding workaholism, the multivariate test is statistically significant for OCB,  $F(2, 91) = 4.05, p = .021, \eta_p^2 = .08$ , but not for CWB,  $F(2, 91) = 1.84, p = .165, \eta_p^2 = .04$ . Follow-up ANOVAs (Table 3) showed that those with high (or 'clinical') workaholism have higher OCB towards the organization than their colleagues with low workaholism; on the contrary, there are no differences concerning CWB and OCB-I.

With regard to work engagement, the multivariate test highlights statistically significant differences for both OCB,  $F(2, 84) = 20.96, p < .001, \eta_p^2 = .33$ , and CWB,  $F(2, 84) = 7.41, p = .001, \eta_p^2 = .15$ . Moreover, as shown by the follow-up ANOVAs (Table 4), workers with high work engagement have higher OCB and lower CWB towards both individuals and the organization than colleagues with low work engagement.

## Discussion

This study analyzed organizational variables as potential antecedents and outcomes of workaholism and work engagement, namely, two types of HWI. More specifically, we investigated the role of servant leadership as an antecedent of HWI. In addition, we analyzed the role of organizational citizenship behavior (OCB) and counterproductive work behavior (CWB) in two directions: towards coworkers/individuals (i.e., OCB-I and CWB-I) and the organization (i.e., OCB-O and CWB-O), as HWI outcomes.

With regard to "servant leadership", as hypothesized (*H1*), the path analysis showed that servant leadership is a positive predictor of both workaholism and (to a greater extent) work engagement. This may be because servant leaders fuel the underlying nature of their followers (Greenleaf, 1977; Sendjaya, 2015; Sendjaya et al., 2019). Hence, with regard to HWI, if the followers tend to be workaholics or engaged workers (according to varying personal and situational antecedents; Loscalzo & Giannini, 2017; Tabak et al., 2021), their HWI attitude will be further cultivated by the servant leaders, given that the latter encourage followers to become what they are.

In light of the above, our study provides further evidence of the positive outcomes of servant leadership, such as OCB and team performance (e.g., Erhart, 2004; Schaubroeck et al., 2011). More specifically, the development of higher work engagement. This observation reinforces the conceptualization of servant leadership as a type of leadership that positively empowers followers with the paramount opportunities to become what they are capable of becoming (Greenleaf, 1977; Sendjaya, 2015; Sendjaya et al., 2019). Therefore, favoring servant leadership in the organization could incentivize work engagement. However, future research should analyze which specific features of servant leaderships (i.e., voluntary subordination, authentic self, covenantal relationship, responsible morality, transcendental spirituality, and transforming influence) is associated with positive outcomes in employees, including work engagement, since our study showed that servant leadership is also associated with workaholism.

In fact, we noted that servant leadership also 'fosters' workaholism. Insofar as workaholism and work engagement are seen as operating at cross-purposes, this finding appears to fly in the face of the positive image of servant leadership so far engendered. However, we might better understand the dynamics at play by adopting a clinical perspective. For instance, Sendjaya et al. (2019, p. 942) suggest that "rather than being transformed into a mini-me version of the leader or even a better version of themselves, followers are empowered to become what they are capable of becoming 'when each dimension of their individual self is fully explored and developed'" (emphasis added).

From a clinical perspective, Sendjaya et al.'s (2019) description of follower empowerment resembles Jung's conceptualization of 'individuation,' which is the objective of a therapy based on Jungian analytical psychology. In brief, Jung (1928/1989) stated that becoming individuated means to realize the 'self' to achieve our potential to become what we can be. This dynamic generally represents a positive development (especially in the analytic setting). However, Jung's theory also underlines the presence within everyone of 'the Shadow,' which corresponds to those hidden, repressed, and undesirable aspects of the personality (Jung, 1964/1980).

With these clinical insights in mind, servant leaders who are not therapists and lack critical counseling skills might reinforce their followers' negative work attitudes where extant. They are likely unable to distinguish between the different types of HWI and consequently tailor interventions to cultivate work engagement among followers, including those prone to workaholism.

If our premise is correct, then based on these findings, we recommend implementing training with the following objectives:

- Make leaders aware of the differences between the various types of HWI (engaged workaholics, disengaged workaholics, engaged workers, and disengaged workers).
- Enable leaders to detect workers who have an underlying workaholic attitude.
- Adopt interventions to foster a positive change towards work engagement in all their followers, including the workaholics being helped to become engaged workers.

Soft-skills training addressed to leaders, mainly on communication and observation skills, would be crucial to this objective. Furthermore, we emphasize the importance of providing specialized psychological counseling for workers who do not appear to benefit from leaders' attempts to transform them from workaholism to work engagement or for high workaholics requiring clinical intervention. In aiming to encourage work engagement and reduce workaholism, it would be important to implement interventions to reduce the climate of overworking that address the leader's attitude towards followers and work itself. In fact, by focusing on an organizational perspective, we might speculate that – considering that servant leadership prompts followers to become what they are capable of becoming – an important role might be played by the interaction between the individual characteristics of the followers/employees and those of the leader, in conjunction with contextual factors. For example, a workaholic leader who fosters a climate of overworking in their organization might foster workaholism in employees with high perfectionistic tendencies but not in followers who are less perfectionistic in their tasks.

With regard the ANOVAs conducted on servant leadership, we found that workers with high (or clinical) workaholism and high work engagement tend to perceive higher servant leadership in their leaders compared with colleagues with low workaholism and low work engagement. This finding further supports the results of the path analysis, namely, that servant leaders might empower their followers to develop their HWI to their highest potential.

Moreover, considering that in the ANOVA analyses the independent variable was HWI, we further propose that employees with low workaholism and low work engagement might not perceive the growing opportunities made available to them by the leader. Hence, it would be helpful to detect workers with extremely low HWI, as they might not be open to meaningful opportunities for their career development. This oversight could negatively impact both the individual and the organization.

With regard to "gender", we did not find a difference in perceived servant leadership between males and females, as we speculated, and in the absence of previous studies about gender differences for this variable (to the best of the authors' knowledge).

With regard to OCB, in line with our hypothesis (*H2*), work engagement positively predicts both OCB-I and OCB-O. Moreover, the



MANOVAs highlighted that people with high work engagement have higher OCB (both towards colleagues and the organization) than workers with low work engagement. Therefore, we found further evidence with regard to the positive organizational consequences associated with work engagement (e.g., Bakker & Bal, 2010; Urbini et al., 2020; Yalabik et al., 2015) and the importance of fostering work engagement in employees.

With regard to “workaholism”, it does not predict OCB, as hypothesized (H3). The MANOVAs, however, indicated that those with high (or ‘clinical’) workaholism have higher OCB-O than people with low workaholism, while they do not differ in OCB-I. Hence, in line with the inconsistent literature regarding workaholism’s impact on organizational outcomes, we found that workaholism does not predict an increase or decrease in OCB. This conclusion contrasts with previous studies highlighting workaholism’s association with lower OCB (e.g., Aziz et al., 2020). Moreover, given the differences between the path and MANOVA results, we found support for Loscalzo and Giannini’s (2017) suggestion concerning the need to control for work engagement (as in path analysis) when analyzing workaholism because the inconsistent findings in workaholism literature might be due to the lack of distinction between engaged and disengaged workaholics. On the other hand, we could also speculate that the different findings between the path and MANOVA analyses support the conceptualization of workaholism as a clinical disorder since workaholism showed its effect on OCB only when analyzed at its extremely high levels but not when analyzed as a continuous variable.

In addition, while we observed no gender-related difference in OCB-O, we found (in line with H4) that females have higher OCB-I than males, in line with the higher pro-sociality that usually characterizes females compared with males (Pan & Houser, 2011) and in line with previous studies concerning higher OCB in females (e.g., Allen & Rush, 2001; Beauregard, 2012; Farrel & Finklestein, 2007). However, considering the different results found for OCB-I and OCB-O through the path and MANOVA analyses, it would be essential to retain separate analyses for organizational and individual OCB.

With regard to CWB, as hypothesized (H2), the path analysis highlighted that CWB is predicted by both workaholism (positively) and work engagement (negatively), although workaholism has a more substantial effect on CWB-I, and work engagement has a higher impact on CWB-O. The implication is that interventions to reduce negative behaviors towards the organization should mainly address work engagement. In contrast, workaholism (H3) should be the first target for reducing misbehavior towards colleagues.

These results confirm Fida et al.’s (2014) suggestion that CWB-I and CWB-O usually have unique association patterns with the same variables. The MANOVA, however, indicated that CWB does not differ based on high/low levels of workaholism. In contrast, the MANOVA revealed that low work engagement compared with high work engagement is associated with higher CWB towards both colleagues and the organization.

Finally, in line with H4, males have higher CWB-I and CWB-O than females indicating that interventions aimed at reducing CWB should be primarily addressed to males.

In sum, these findings again support the need to control for work engagement when analyzing workaholism and the need to distinguish between engaged and disengaged workaholics.

## Limitations

There are some limitations to our study. First, ours is a cross-sectional research design and, although cross-lagged data are not always warranted (e.g., Spector, 2019), they often offer superior statistical inference (e.g., Stinglhamber & Vandenberghe, 2003; Vandenberghe

et al., 2011). As such, we recommend testing a similar model in a longitudinal perspective.

Second, the sample consisted of primarily Christian individuals. While this usually does not confound research data, religious beliefs can still shape individuals’ work attitudes and behaviors (e.g., Weaver & Stansbury, 2014). Hence, it would be beneficial to replicate the study with a more diversified sample or, alternatively, compare different religious groups.

Last, this study presents cross-sectional analyses that would greatly benefit from replications in other cultural settings. This is important especially for cross-cultural management (e.g., Thomas & Peterson, 2016). The fact that each country is unique (Hofstede, 1980, 1991) invokes interest in replicating the current research (and others as well) in different countries/cultures, largely increasing external and construct validities of the results. Replications should not be discouraged, as they provide the surest method for stability and credibility of any research model. This notion coincides with the recommendation of eminent scholars arguing that the ultimate test for validity of findings is their recurrence in numerous replications (James et al., 1982).

## Conclusions

Although, we underline the lack of distinction between engaged and disengaged workaholics, the small number of participants in these two workaholic types mitigated against our performing parametric or non-parametric analyses on these variables that would enable comparisons between them. Moreover, we evaluated positive (OCB) and negative (CWB) behaviors toward colleagues and the organization through self-report scales. It would be interesting, however, for future studies to employ objective indicators.

Notwithstanding, to the best of the authors’ knowledge, this is the first study to highlight that servant leadership fuels ‘both’ work engagement and workaholism. Consequently, we intimated that a clinical perspective – based on Jung’s individuation concept – would account for the association of both workaholism and work engagement with servant leadership. As such, we promoted the employment of soft-skills interventions to help leaders distinguish between engaged workers and (disengaged or engaged) workaholics, so they could better tailor their approach to followers toward promoting work engagement and avoiding workaholism.

In addition to highlighting the critical role of interventions to increase employee engagement, we provided further evidence of the positive effect of work engagement on the organization.

Finally, we pointed out that the relationship between workaholism and OCB/CWB varies depending on whether the effect of work engagement was controlled for. In conclusion, when analyzing the association between workaholism and other variables, we reaffirm the critical importance of distinguishing between engaged and disengaged workaholics or, at least, controlling for work engagement. By doing so, we move a step forward in clarifying the inconsistent findings across the workaholism literature.

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## Conflict of Interest

The authors of this article declare no conflict of interest.

## References

- Allen, T. D., & Rush, M. C. (2001). The influence of ratee gender on ratings of organizational citizenship behavior. *Journal of*



- Applied Social Psychology, 31(12), 2561-2587. <https://doi.org/10.1111/j.1559-1816.2001.tb00191.x>
- Andreassen, C. S., Nielsen, M. B., Pallesen, S., & Gjerstad, J. (2019). The relationship between psychosocial work variables and workaholism: Findings from a nationally representative survey. *International Journal of Stress Management*, 26(1), 1-10. <https://doi.org/10.1037/str0000073>
- Aziz, S., Pittman, C., & Wuensch, K. (2020). Workaholism and organizational citizenship behaviors: Exploring gender role beliefs. *International Journal of Workplace Health Management*, 13(4), 413-425. <https://doi.org/10.1108/IJWHM-06-2019-0089>
- Bakker, A. B., & Bal, P. M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206. <https://doi.org/10.1348/096317909X402596>
- Balducci, C., Cecchin, M., Fraccaroli, F., & Schaufeli, W. B. (2012). Exploring the relationship between workaholism and workplace aggressive behaviour: The role of job-related emotion. *Personality and Individual Differences*, 53(5), 629-634. <https://doi.org/10.1016/j.paid.2012.05.004>
- Barbaranelli, C., Fida, R., & Gulandri, M. (2013). Assessing counterproductive work behavior: A study on the dimensionality of CWB-checklist. *TMP-Testing, Psychometrics, Methodology in Applied Psychology*, 20(3), 235-248. <https://doi.org/10.4473/TPM20.3.3>
- Beauregard, T. A. (2012). Perfectionism, self-efficacy and OCB: The moderating role of gender. *Personnel Review*, 41(5), 590-608. <https://doi.org/10.1108/00483481211249120>
- Bentler, P. M., & Wu, E. J. (2005). *EQS 6.1 for Windows: Structural equations program manual*. Multivariate Software.
- Birkeland, I. K., & Buch, R. (2015). The dualistic model of passion for work: Discriminative and predictive validity with work engagement and workaholism. *Motivation and Emotion*, 39(3), 392-408. <https://doi.org/10.1007/s11031-014-9462-x>
- Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71-98). Jossey-Bass.
- Bowling, N. A., & Eschleman, K. J. (2010). Employee personality as a moderator of the relationships between work stressors and counterproductive work behavior. *Journal of Occupational Health Psychology*, 15(1), 91-103. <https://doi.org/10.1037/a0017326>
- Bruck-Lee, V., & Spector, P. (2006). The social stressors-counterproductive work behaviors link: Are conflicts with supervisors and coworkers the same? *Journal of Occupational Health Psychology*, 11(2), 145-156. <https://doi.org/10.1037/1076-8998.11.2.145>
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge.
- Chappell, D., & Di Martino, V. (2006). *Violence at work* (3rd ed.). International Labour Organization.
- Choi, Y. (2013). The differences between work engagement and workaholism, and organizational outcomes: An integrative model. *Social Behavior and Personality*, 41(10), 1655-1666. <https://doi.org/10.2224/sbp.2013.41.10.1655>
- Dalal, R. S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology*, 90(6), 1241-1255. <https://doi.org/10.1037/0021-9010.90.6.1241>
- Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation*. Erlbaum.
- Eagly, A., Karau, S. J., & Makajhani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 117(1), 125-145. <https://doi.org/10.1037/0033-2909.117.1.125>
- Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology*, 57(1), 61-94. <https://doi.org/10.1111/j.1744-6570.2004.tb02484.x>
- Endriulaitienė, A., & Morkevičiūtė, M. (2020). The unintended effect of perceived transformational leadership style on workaholism: The mediating role of work motivation. *The Journal of Psychology*, 154(6), 446-465. <https://doi.org/10.1080/00223980.2020.1776203>
- Farrell, S. K., & Finkelstein, L. M. (2007). Organizational citizenship behavior and gender: Expectations and attributions for performance. *North American Journal of Psychology*, 9(1), 81-96.
- Fida, R., Paciello, M., Barbaranelli, C., Tramontano, C., & Griffith Fontaine, R. (2014). The role of irritability in the relation between job stressors, emotional reactivity, and counterproductive work behaviour. *European Journal of Work and Organizational Psychology*, 23(1), 31-47. <https://doi.org/10.1080/1359432X.2012.713550>
- Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59(3), 291-309. <https://doi.org/10.1006/jvbe.2001.1803>
- Giannini, M., & Loscalzo, Y. (2016). Workaholism: Health risk and prevention in the organizations. In A. di Fabio (Ed.), *Neuroticism: Characteristics, impact on job performance and health outcomes* (pp. 49-60). Nova Science Publishers.
- Graham, J. W. (1991). Servant-leadership in organizations: Inspirational and moral. *The Leadership Quarterly*, 2(2), 105-119. [https://doi.org/10.1016/1048-9843\(91\)90025-W](https://doi.org/10.1016/1048-9843(91)90025-W)
- Greenleaf, R. K. (1977). *Servant-leadership: A journey into the nature of legitimate power and greatness*. Paulist Press.
- Gruys, M. L., & Sackett, P. R. (2003). Investigating the dimensionality of counterproductive work behavior. *International Journal of Selection and Assessment*, 11(1), 30-41. <https://doi.org/10.1111/1468-2389.00224>
- Heymans, M. W., & Eekhout, I. (2019). Applied missing data analysis with SPSS and @Studio. <https://bookdown.org/mwheyman/bookmi>
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. SAGE.
- Hofstede, G. (1991). *Cultures and organization: Software of the mind*. McGraw-Hill.
- Hu, L. T., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- James, L. R., Mulaik, S. A., & Brett, J. M. (1982). *Conditions for confirmatory analysis and causal inference*. SAGE.
- Judge, T. A., Scott, B. A., & Ilies, R. (2006). Hostility, job attitudes, and workplace deviance: Test of a multilevel model. *Journal of Applied Psychology*, 91(1), 126-138. <https://doi.org/10.1037/0021-9010.91.1.126>
- Jung, C. G. (1928/1989). *L'io e l'inconscio* [The ego and the unconscious] (A. Vita, Trans.). Universale Scientifica Boringhieri (Original work published in 1928).
- Jung, C. G. (1964/1980). *L'uomo e i suoi simboli* [The man and his symbols]. Longanesi (Original work published in 1964).
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognition. *Journal of Applied Psychology*, 87(1), 131-142. <https://doi.org/10.1037/0021-9010.87.1.131>
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *Journal of Applied Psychology*, 87(1), 52-65. <https://doi.org/10.1037/0021-9010.87.1.52>
- Loscalzo, Y. (2021). The impact of workaholism and work engagement on distant learning and work-family conflict during the COVID-19 lockdown. *Amfiteatru Economic*, 23(58), 752-769. <https://doi.org/10.24818/EA/2021/58/752>
- Loscalzo, Y., & Giannini, M. (2017). Clinical conceptualization of workaholism: A comprehensive model. *Organizational Psychology Review*, 7(4), 306-329. <https://doi.org/10.1177/2041386617734299>
- Loscalzo, Y., & Giannini, M. (2019a). Heavy study investment in Italian college students. An analysis of Loscalzo and Giannini's (2017) studyholism comprehensive model. *Frontiers in Psychiatry*, 10, Article 489. <https://doi.org/10.3389/fpsy.2019.00489>
- Loscalzo, Y., & Giannini, M. (2019b). What type of worker are you? Work-related Inventory (WI-10): A comprehensive instrument for the measurement of workaholism. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, 62(3), 383-392. <https://doi.org/10.3233/WOR-192875>
- Loscalzo, Y., & Giannini, M. (2020). Heavy work investment and psychopathology: Internalizing and externalizing disorders as antecedents and outcomes. *Amfiteatru Economic* [Special Issue], 22(14), 1301-1324. <https://doi.org/10.24818/EA/2020/514/1301>
- Luthans, F., & Avolio, B. (2003). Authentic leadership development. In K. S. Cameron & J. E. Dutton (Eds.), *Positive organizational scholarship* (pp. 241-254). Berrett-Koehler.
- Malinowska, D., & Tokarz, A. (2014). The structure of workaholism and types of workaholic. *Polish Psychological Bulletin*, 45(2), 211-222. <https://doi.org/10.2478/ppb-2014-0027>
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11-37. <https://doi.org/10.1348/096317904322915892>
- McNeely, B. L., & Meglino, B. M. (1994). The role of dispositional and situational antecedents in prosocial organizational behavior: An examination of the intended beneficiaries of prosocial behavior. *Journal of Applied Psychology*, 79(6), 836-844. <https://doi.org/10.1037/0021-9010.79.6.836>
- Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2), 85-97. <https://doi.org/10.1207/s15327043hup1002.2>
- Pan, X., & Houser, D. (2011). Mating strategies and gender differences in prosociality: Theory and evidence. *CESifo Economic Studies*, 57(4), 653-682. <https://doi.org/10.1093/cesifo/ifr020>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122-141. <https://doi.org/10.1037/a0013079>
- Reeve, B. B., Hays, R. D., Bjorner, J. B., Cook, K. F., Crane, P. K., Teresi, J. A., Thissen, D., Revicki, D., Weiss, D., Hambleton, R., Lui, H., Gershon, R., Reise, S., Lai, J.-S., & Cella, D. (2007). Psychometric evaluation and calibration of health-related quality of life item banks: Plans for the Patient-Reported Outcomes Measurement Information System

- (PROMIS). *Medical Care*, 45(5), S22-S31. <https://doi.org/10.1097/01.mlr.0000250483.85507.04>
- Reinke, S. J. (2004). Service before self: Towards a theory of servant leadership. *Global Virtue Ethics Review*, 3, 30-57. [https://www.researchgate.net/publication/228754949\\_Service\\_before\\_self\\_Towards\\_a\\_theory\\_of\\_servant-leadership](https://www.researchgate.net/publication/228754949_Service_before_self_Towards_a_theory_of_servant-leadership)
- Robinson S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal*, 38(2), 555-572.
- Salanova, M., Del Líbano, M., Llorens, S., & Schaufeli, W. B. (2014). Engaged, workaholic, burned out or just 9-to-5? Toward a typology of employee well-being. *Stress & Health*, 30(1), 71-81. <https://doi.org/10.1002/smi.2499>
- Schaubroeck, J., Lam, S. S., & Peng, A. C. (2011). Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology*, 96(4), 863-871.
- Sendjaya, S. (2015). *Personal and organizational excellence through servant leadership: Learning to serve, serving to lead, leading to transform*. Springer.
- Sendjaya, S., Eva, N., Butar Butar, I., Robin, M., & Castles, S. (2019). SLBS-6: Validation of a short form of the Servant Leadership Behavior Scale. *Journal of Business Ethics*, 156(3), 941-956. <https://doi.org/10.1007/s10551-017-3594-3>
- Sendjaya, S., Sarros, J. C., & Santora, J. C. (2008). Defining and measuring servant leadership behaviour in organizations. *Journal of Management Studies*, 45(2), 402-424. <https://doi.org/10.1111/j.1467-6486.2007.00761.x>
- Shah, S.M.M., Humaira, D., Sheva, R., Saifullah, S., & Qamar Abbas, M. (2022). Do you want better employee engagement? An umbrella of ethical leadership. *International Journal of Early Childhood Special Education*, 14(7), 1700-1710.
- 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(1), 18-23. <https://doi.org/10.1007/s12529-014-9410-x>
- Shkoler, O., & Kimura, T. (2020). How does work motivation impact employees' investment at work and their job engagement? A moderated-moderation perspective through an international lens. *Frontiers in Psychology*, 11, Article 38. <https://doi.org/10.3389/fpsyg.2020.00038>
- Shkoler, O., Rabenu, E., Iqbal, M. Z., Ferrari, F., Hatipoglu, B., Roazzi, A., Kimura, T., Tabak, F., Moasa, H., Vasiliu, C., Tziner, A., & Lebron, M. J. (2021). Heavy-Work Investment scale and demographics in 9 countries: Did the COVID-19's context make a difference? *Journal of Work and Organizational Psychology (Revista de Psicología del Trabajo y de las Organizaciones)*, 37(2), 67-83. <https://doi.org/10.5093/jwop2021a8>
- Shkoler, O., Tziner, A., Vasiliu, C., & Ghinea, C. N. (2021). A moderated-mediation analysis of organizational justice and leader-member exchange: Cross-validation with three sub-samples. *Frontiers in Psychology*, 12, Article 616476. <https://doi.org/10.3389/fpsyg.2021.616476>
- Smith, T., Kindness, D., & Rathburn, D. (2022, November 23). *What is employee engagement? Definition, strategies, and example*. Investopedia. <https://www.investopedia.com/terms/e/employee-engagement.asp>
- Snir, R., & Harpaz, I. (2012). Beyond workaholism: Towards a general model of heavy work investment. *Human Resource Management Review*, 22(3), 232-243. <https://doi.org/10.1016/j.hrmr.2011.11.011>
- Sousa, M., & Van Dierendonck, D. (2017). Servant leadership and the effect of the interaction between humility, action, and hierarchical power on follower engagement. *Journal of Business Ethics*, 141(1), 13-25. <https://doi.org/10.1007/s10551-015-2725-y>
- Spagnoli, P., Balducci, C., Scafuri Kovalchuk, L., Maiorano, F., & Buono, C. (2018). Are engaged workaholics protected against job-related negative affect and anxiety before sleep? A study of the moderating role of gender. *International Journal of Environmental Research and Public Health*, 15(9), Article 1996. <https://doi.org/10.3390/ijerph15091996>
- Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of Business and Psychology*, 34(2), 125-137.
- Spector, P. E., & Fox, S. (2005). A model of counterproductive work behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive workplace behavior: Investigations of actors and targets* (pp. 151-174). American Psychological Association.
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior*, 68(3), 446-460. <https://doi.org/10.1016/j.jvb.2005.10.005>
- Stinglhamer, F., & Vandenberghe, C. (2003). Organizations and supervisors as sources of support and targets of commitment: A longitudinal study. *Journal of Organizational Behavior*, 24(3), 251-270. <https://doi.org/10.1002/job.192>
- Stone, A. G., Russell, R. F., & Patterson, K. (2004). Transformational versus servant leadership: A difference in leader focus. *Leadership & Organizational Development Journal*, 25, 349-361. <https://doi.org/10.1108/01437730410538671>
- Tabak, F., Tziner, A., Shkoler, O., & Rabenu, E. (2021). The complexity of heavy work investment (HWI): A conceptual integration and review of antecedents, dimensions, and outcomes. *Sustainability*, 13, Article 7803. <https://doi.org/10.3390/su13147803>
- Thomas, D. C., & Peterson, M. F. (2016). *Cross-cultural management: Essential concepts*. SAGE.
- Tziner, A., & Sharoni, G. (2014). Organizational citizenship behavior, organizational justice, job stress, and work-family conflict: Examination of their interrelationships with respondents from a non-Western culture. *Revista de Psicología del Trabajo y de las Organizaciones*, 30(1), 35-42. <https://doi.org/10.5093/tr2014a5>
- Urbini, F., Chirumbolo, A., & Callea, A. (2020). Promoting individual and organizational OCB: The mediating role of work engagement. *Behavioral Sciences*, 10, Article 138. <https://doi.org/10.3390/bs10090138>
- Van Beek, I., Taris, T. W., & Schaufeli, W.B. (2011). Workaholic and work engaged employees: Dead ringers or worlds apart? *Journal of Occupational Health Psychology*, 16(4), 468-482. <https://doi.org/10.1037/a0024392>
- Vandenberghe, C., Panaccio, A., Bentein, K., Mignonac, K., & Roussel, P. (2011). Assessing longitudinal change of and dynamic relationships among role stressors, job attitudes, turnover intention, and well-being in neophyte newcomers. *Journal of Organizational Behavior*, 32(4), 652-671. <https://doi.org/10.1002/job.732>
- Weaver, G., & Stansbury, J. (2014). Religion in organizations: Cognition and behavior. In P. Tracey, N. Phillips, & M. Lounsbury (Eds.), *Religion and organization theory. Research in the sociology of organizations* (Vol. 10, pp. 65-110). Emerald.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601-607. <https://doi.org/10.1177/014920639101700305>
- Yalabik, Z. Y., Van Rossenberg, Y., Kinnie, N., & Swart, J. (2015). Engaged and committed? The relationship between work engagement and commitment in professional service firms. *The International Journal of Human Resource Management*, 26(12), 1602-1621. <https://doi.org/10.1080/09585192.2014.953972>