



Is the Occupational Depression Inventory predictive of cognitive performance? A focus on inhibitory control and effortful reasoning

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ABSTRACT

The Occupational Depression Inventory (ODI) was recently devised to grade the severity of work-attributed depressive symptoms (dimensional approach) and establish provisional diagnoses of job-ascribed depression (categorical approach). To date, whether ODI-based assessments relate to “objective” (i.e., non-self-reported) indicators of performance is unknown. In this study of 902 educational staff members, we examined the link between occupational depression and cognitive performance. Cognitive performance was evaluated with an extended version of the Cognitive Reflection Test (CRT). The CRT focuses on inhibitory control and effortful reasoning and mobilizes working memory resources. The CRT provides information about individuals' decision-making styles (e.g., degree of deliberation). Participants' transient mood was evaluated prior to the test. Dimensional and categorical analyses were conducted. We found the ODI to negatively predict cognitive performance. Hierarchical linear regression and binary logistic regression analyses indicated that the association remained statistically significant controlling for age, sex, and pretest transient mood. Structural regression analysis revealed similar links. The associations observed were small to moderate in size, consistent with research findings pertaining to clinical depression and neuropsychological functioning. Our study suggests that ODI-based assessments are predictive of objective decreases in cognitive performance. Implications for job performance are discussed.

1. Introduction

The Occupational Depression Inventory (ODI) was recently devised to grade the severity of work-attributed depressive symptoms and establish provisional diagnoses of job-ascribed depression (Bianchi & Schonfeld, 2020). The ODI is thus anchored in an approach to depression that is both dimensional and categorical, consistent with recent developments in psychopathological science (e.g., Haslam et al., 2012; Pickles & Angold, 2003). The ODI references the nine diagnostic symptom criteria for major depressive disorder found in the *Diagnostic and statistical manual of mental disorders* (5th ed.; DSM-5), i.e., anhedonia, depressed mood, sleep alterations, fatigue/loss of energy, appetite alterations, feelings of worthlessness, cognitive impairment, psychomotor alterations, and suicidal ideation (American Psychiatric Association [APA], 2013). By contrast with classical measures of depression, the ODI treats each symptom in connection to work. For instance, individuals are not merely asked if they felt worthless; individuals are asked if their *experience at work* made them feel worthless.

The ODI is the only measure of its kind.

The ODI was developed to respond to long-lamented flaws and shortcomings in available measures of job-related distress, most notably, measures of the construct of burnout (Bianchi & Schonfeld, 2020; Schwenk & Gold, 2018; Vinkers & Schaafsma, 2021). The problems affecting the construct of burnout and its measures have been examined in detail (Bianchi et al., 2019, 2021; Heinemann & Heinemann, 2017; Rotenstein et al., 2018). These problems are manifold. They include definitional heterogeneity, contradictions between conceptualizations and operationalizations of the construct, an absence of clear clinical and theoretical foundations for the construct, a narrow assessment scope (e.g., in terms of the symptoms considered), a lack of construct validity, and the impossibility of diagnosing the syndrome. This state of affairs places occupational health specialists in a difficult position when it comes, for instance, to ascertaining *who* suffers from burnout, estimating the syndrome's prevalence, generating effective treatments and interventions, and identifying biological and cognitive markers. Substantiating these concerns, research on biological functioning and cognitive

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performance in burnout has been inconclusive and marked by highly conflictual findings (Danhof-Pont et al., 2011; Deligkaris et al., 2014; Kulikowski, 2020). In a review of 182 studies of physician burnout, Rotenstein et al. (2018) identified no fewer than 142 unique definitions of burnout, “indicating substantial disagreement in the literature on what constituted burnout” (p. 1131). The problems affecting the burnout construct undermine its usability and, ultimately, impede the ability of occupational health specialists to make informed decisions and take effective action with regard to job-related distress. The ODI reflects an attempt to renew and improve how job-related distress is approached in occupational health science.

The ODI has demonstrated strong psychometric and structural properties to date, as investigated, *inter alia*, through exploratory structural equation modeling bifactor analysis (Bianchi & Schonfeld, 2020). There is evidence that, as expected, the ODI presents a balance of convergent validity and discriminant validity vis-à-vis “cause-neutral” measures of depressive symptoms (e.g., the widely used Center for Epidemiological Studies-Depression). Research on the ODI's criterion validity indicates that the instrument correlates in the expected direction with a number of work-contextualized and context-free variables, including job satisfaction, dedication to work, willingness to stay in the job, social support in work life, active search for another job/position, trait anxiety, general health status, and life satisfaction. These links, however, have been established in the context of self-reported surveys. To date, the issue of whether ODI-based assessments relate to “objective,” i.e., non-self-reported, indicators of health or performance has not been addressed. Addressing this issue is an important step in more fully establishing the ODI's criterion validity and practical utility. The present study aimed to start filling this research gap by examining whether the ODI predicts objective cognitive performance.

Cognitive activity involves a set of functions dedicated to the regulation and production of action, including abstract reasoning and problem-solving, planning, organizing and self-monitoring of goal-directed behavior, and inhibitory control. Cognitive performance in clinical depression has been increasingly investigated over the last decades. Recent literature reviews and meta-analytic studies indicate that depressed patients exhibit broad alterations in cognitive functions (e.g., executive functions), both during symptomatic phases and phases of remission (McIntyre et al., 2013; Mukherjee & Kable, 2014; Nikolin et al., 2021; Rock et al., 2014; Semkovska et al., 2019; Snyder, 2013). Small to moderate effect sizes have frequently been documented. Such findings suggest that the subjective cognitive complaints expressed by depressed patients are reflected, at least partly, in actual decreases in cognitive performance. In the work context, decreases in cognitive performance likely play a role in the relationship between clinical depression and negative outcomes such as loss of productivity (McIntyre et al., 2013).

In this study, we examined whether ODI-based assessments are linked to objectively measured cognitive performance. Based on the research findings reviewed above, we hypothesized that (a) work-attributed depressive symptoms would be negatively linked to cognitive performance and (b) individuals with a provisional diagnosis of job-ascribed depression would exhibit poorer cognitive performance compared to individuals without such a diagnosis. Cognitive effectiveness is of considerable importance in many jobs (Kulikowski, 2020; Maskill & Tempest, 2017). Cognitive performance thus appears as a particularly apt individual characteristic to investigate in research on the links between objective indicators of performance and ODI-based assessments. Clarifying these links can allow us to better estimate the criterion validity and practical utility of the ODI.

2. Methods

2.1. Study sample

We relied on a sample of educational staff members recruited in

France. We considered educational staff members a relevant population for at least two reasons. First, because cognitive tasks occupy a central place in their work. Second, because they are subject to a variety of chronic work stressors (e.g., verbal intimidation and physical violence; Longobardi et al., 2019) known to foster the development of depressive symptoms (Schonfeld et al., 2017).

Participants were reached through email contacts with administrators and directors of K-12 schools. The emails contained a brief description of the study as well as a weblink to an online survey. School administrators and directors were asked to complete the survey themselves and to forward the emails to the other professionals working in their school to permit those professionals to participate should they so choose. Participation was voluntary and anonymous. No compensation was offered.

Our survey comprised the ODI, an extended version of the Cognitive Reflection Test (CRT), a measure of transient mood, and sociodemographic items. At the very end of the survey, participants were asked if they had completed the CRT alone and without help. A negative answer was eliminatory. Of the 957 participants who had completed the survey, 28 (3% of the initial sample) were excluded on this basis.

Of the remaining 929 participants, another 27 (3% of the corrected sample) were excluded due to aberrantly long response duration. Aberrantly long response duration was defined by a survey completion time exceeding 45 min. The questionnaires involved in the survey were relatively short and, based on past research findings, the CRT was not expected to take more than 10 min to complete (Primi et al., 2016; Sirota & Juanchich, 2018). A 45-minute limit thus allowed us, without being overly restrictive, to exclude participants with completion durations reflecting an extreme lack of attention (e.g., durations signaling survey completion on more than a day). The fastest respondent completed the survey in 3.18 min. The respondent in question exhibited an above-average score of 0.667 on the CRT, suggesting that no lower boundary for aberrant response duration was required. The study sample eventually included 902 participants (mean completion time = 10.21 min, $SD = 5.55$). The mean age in the study sample was 43.249 ($SD = 9.652$). About 81% percent of the respondents were women, consistent with the large overrepresentation of women in the French K-12 academic system (<https://www.education.gouv.fr/>).

The survey was administered with Qualtrics (<https://www.qualtrics.com/>). The study was conducted in accordance with the ethical standards of the institutional review board of the University of Neuchâtel.

2.2. Measures of interest and procedure

The factorial validity of our polytomous measures was reexamined using confirmatory factor analysis (CFA) in Mplus 8 (Muthén & Muthén, 1998–2017). We treated the items as categorical and used the WLSMV estimator. We employed McDonald's ω to estimate our instruments' reliability.

2.2.1. ODI

The ODI comprises nine core symptom items (e.g., “My experience at work made me feel like a failure”) rated on a 4-point scale (from 0 for “never or almost never” to 3 for “nearly every day”). In addition to quantifying the severity of work-attributed depressive symptoms, the ODI allows investigators to identify likely cases of job-ascribed depression based on a provisional diagnosis algorithm (Bianchi & Schonfeld, 2020). The algorithm is consistent with DSM-5 diagnostic criteria for major depression (APA, 2013). To receive a provisional diagnosis of job-ascribed depression, a respondent needs a score of 3 on at least five of the nine symptom items. One of the five symptom items has to be anhedonia or depressed mood. Importantly, in view of suicidal ideation's intrinsic gravity and sentinel status (APA, 2013), the suicidal ideation item of the ODI counts among the five symptom items needed for a provisional diagnosis with a score of 1, 2, or 3. A one-factor confirmatory factor analytic model showed a satisfactory fit: RMSEA = 0.056;

CFI = 0.991; TLI = 0.988; SRMR = 0.035; $\chi^2(27) = 102.691$. The reliability of the ODI was also satisfactory, with a McDonald's ω of 0.89.

2.2.2. CRT

Cognitive performance was assessed with the six-item version of the CRT developed by Primi et al. (2016). The CRT focuses on inhibitory control and reflection efficiency, two important aspects of cognitive activity. More specifically, the CRT was designed to elicit heuristic (or intuitive) responses that need to be inhibited in favor of more effortful thinking in order for correct responses to be found (Frederick, 2005). The CRT implies maintenance and manipulation of information in working memory and speaks to decision-making styles. A sample item is:

"A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?" The heuristic (intuitive) answer is 10 cents; the correct answer is 5 cents.

The CRT exhibits substantial correlations with various indicators of intelligence and general cognitive ability while being brief and easy to administer (Primi et al., 2016). The CRT has become a popular measure in cognitive psychological research (Brañas-Garza et al., 2019). We used the CRT with a four-option response format (Sirota & Juanchich, 2018). In addition to the heuristic and correct answers, an incorrect, nonintuitive answer and a "other" answer were available to the respondents. A correct answer was given a score of 1 whereas any incorrect answer was given a score of 0. CRT mean scores thus ranged from 0 to 1. A one-factor confirmatory factor analytic model exhibited an acceptable fit: RMSEA = 0.052; CFI = 0.981; TLI = 0.968; SRMR = 0.054; $\chi^2(9) = 31.185$. McDonald's ω was also acceptable, with a value of 0.70. Detailed descriptive statistics for the CRT are available in Supplementary Table 1.

2.2.3. Transient mood

Participants indicated how they were feeling right at the moment using three items reflective of the positive mood, dejected mood, and irritable mood triad (e.g., van Eck et al., 1998): "I feel fine, I am in a good mood"; "I feel down, demoralized"; "I feel angry, irritated." Items were rated on a 5-point scale (from 1 for "strongly agree" to 5 for "strongly disagree"). McDonald's ω was 0.83.¹

2.2.4. Procedure

Participants first completed the transient mood measure. They were then submitted to the CRT, whose items were presented randomly. The ODI and sociodemographic items were administered last. The ODI was administered after the CRT with the aim of blurring the objective of the study.

2.3. Data analyses

Our analytic framework was centered on three types of regression analyses: (a) hierarchical linear regressions, (b) structural regressions (allowing measurement error to be modeled), and (c) binary logistic regressions. In the regression analyses, we approached our main predictor—occupational depression—through three indicators: (a) work-attributed depressive symptoms, as reflected in ODI mean scores ($N = 902$), (b) job-ascribed depression, dichotomizing between "depressed" (coded 1; $n = 55$) and "nondepressed" (coded 0; $n = 847$) participants based on the ODI diagnostic algorithm, and (c) extreme depression groups, dichotomizing between depressed participants (coded 1; $n = 55$) and low ODI scorers (mean ODI score < 0.50; coded 0; $n = 203$). The dichotomization of continuous variables has various implications (e.g.,

for statistical power) and should be handled with caution (MacCallum et al., 2002; Preacher et al., 2005). In this study, we relied on both continuous and dichotomized variables. Our dichotomizations of occupational depression were based on the diagnostic algorithm of the ODI, which was designed to distinguish between likely and unlikely cases of job-ascribed depression (Bianchi & Schonfeld, 2020). The ODI diagnostic algorithm is anchored in the DSM-5 criteria for major depression, which are themselves reflective of advanced clinical research on depression (APA, 2013). With our first dichotomization, we compared depressed individuals to all other participants. With our second dichotomization, we compared depressed individuals only to participants exhibiting ODI scores that were low enough to suggest an absence (or minimal levels) of symptoms. This alternative dichotomization allowed for a sharper contrast between individuals who were affected by depressive symptoms and those who were not (or only minimally so). This approach, sometimes referred to as the extreme-groups approach, has been employed in numerous psychological studies (e.g., Bernichon et al., 2003; Verplanken & Holland, 2002).

Following a similar dual approach, we considered mean scores on the CRT—our outcome variable—from both a continuous and a dichotomized perspective. As previously mentioned, CRT mean scores ranged from 0 to 1. We based our dichotomization on the central point of the scale, i.e., 0.50. Such a cutpoint is meaningful with regard to performance in that it distinguishes individuals who successfully passed at least half of the test from individuals who did not. We labeled individuals who successfully passed at least half of the CRT "good CRT performers" ($n = 592$) and individuals who did not "poor CRT performers" ($n = 310$).

In addition to these core analyses, we examined relationships among our variables of interest using Pearson and Spearman correlations, Pearson's chi-squared (χ^2) test, Welch's analysis of variance (ANOVA)—a robust test of equality of means, and the Mann-Whitney U test—a nonparametric method for group comparisons.

3. Results

3.1. Descriptive statistics and preliminary analyses

About 6% of our participants ($n = 55$) met the criteria for a provisional diagnosis of job-ascribed depression. The proportion of individuals with job-ascribed depression at each CRT mean score found in the distribution is displayed in Fig. 1. The proportion of individuals with job-ascribed depression was 2.130 times higher among poor CRT performers (29 of 281) than among good CRT performers (26 of 566), $\chi^2(1) = 8.752$, $p = .003$.

Welch's ANOVA indicated that depressed participants exhibited lower CRT scores ($M = 0.436$, $SD = 0.326$) than nondepressed participants ($M = 0.570$, $SD = 0.290$), $F(1, 59.687) = 8.755$, $p < .004$, Cohen's $d = 0.434$. The Mann-Whitney U test revealed a similar difference between the two groups, $p = .002$.

A Welch's ANOVA of extreme depression groups showed that low ODI scorers (mean ODI score < 0.50) exhibited higher CRT scores ($M = 0.586$, $SD = 0.286$) than depressed participants ($M = 0.436$, $SD = 0.326$), $F(1, 77.995) = 9.595$, $p < .003$, Cohen's $d = 0.489$. The Mann-Whitney U test led to a similar finding, $p = .002$.

3.2. Correlational analyses and hierarchical linear regression analysis

ODI scores correlated negatively with CRT scores, Pearson $r = -0.113$, $p = .001$ (Spearman $\rho = -0.099$, $p = .003$; Supplementary Table 1). The ODI-CRT association remained statistically significant controlling for age, sex, and pretest transient mood in hierarchical linear regression analysis (Supplementary Table 2). When corrected for measurement error within a structural equation modeling framework, the correlation between occupational depression and cognitive reflection reached -0.146 (Fig. 2).

¹ We do not report on model fit for a one-factor CFA of our measure of transient mood because a CFA with three items and one latent variable is saturated. It has zero degrees of freedom and cannot have a χ^2 . The fit of such a model is meaningless. We note, however, that factor loadings ranged from 0.71 to 0.92 (standard errors ranged from 0.01 to 0.02).

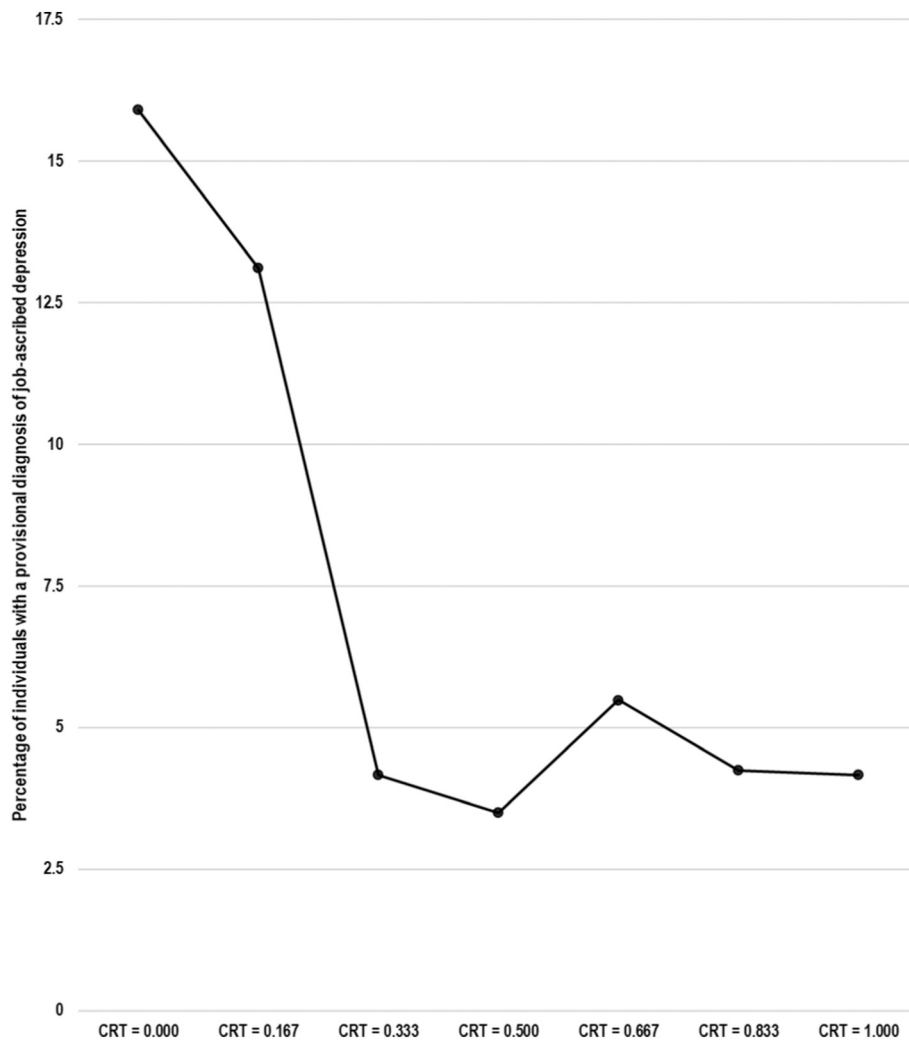


Fig. 1. Proportion of individuals with a provisional diagnosis of job-ascribed depression at each CRT mean score found in the distribution (CRT: Cognitive Reflection Test).

3.3. Structural regression analysis

Structural regression analysis indicated that the Occupational Depression and Cognitive Reflection factors were linked in a statistically significant manner, $\beta = -0.143$, $p = .046$ (Fig. 3). Of the four predictors, only Transient Mood was unrelated to Cognitive Reflection.

Cognitive Reflection was also predicted by job-ascribed depression, $\beta = -0.110$, $p = .010$, and extreme depression groups, $\beta = -0.217$, $p = .003$ (Figs. 4 and 5). Again, of the four predictors at stake, only Transient Mood showed no link to Cognitive Reflection.

3.4. Binary logistic regression analysis

Results from binary logistic regression analysis are summarized in Table 1. Work-attributed depressive symptoms were predictive of a 31% decreased probability of being a good CRT performer. Participants with a provisional diagnosis of job-ascribed depression had a 45% reduced likelihood of being a good CRT performer by comparison with diagnosis-free participants. Finally, compared to low ODI scorers (mean ODI score < 0.50), participants meeting the criteria for a provisional diagnosis of job-ascribed depression had a 78% reduced probability of being a good CRT performer. All these results were obtained controlling for age, sex, and pretest transient mood.

4. Discussion

We examined the relationship between ODI-based assessments and cognitive performance relying on an extended version of the CRT (Primi et al., 2016), a popular test that focuses on inhibitory control and effortful reasoning. As hypothesized, we found occupational depression to be negatively associated with cognitive performance. Our results were consistent across dimensional and categorical analyses. The associations observed remained statistically significant controlling for age, sex, and pretest transient mood.

Our results are in keeping with the findings pertaining to cognitive impairment in clinical depression (Rock et al., 2014; Semkovska et al., 2019; Snyder, 2013) and, specifically, with the findings on cognitive control and effortful processing of information (Grahek et al., 2019; Hartlage et al., 1993). Earlier research has demonstrated the criterion validity of the ODI. For example, the ODI was found to relate to such factors as job satisfaction, dedication to work, willingness to stay in the job, social support in work life, active search for another job/position, trait anxiety, general health status, and life satisfaction (Bianchi & Schonfeld, 2020). The present study suggests that the ODI has predictive value vis-à-vis cognitive alterations.

The small to moderate effect sizes observed in this study are consistent with those documented in research on clinical depression (Rock et al., 2014; Semkovska et al., 2019; Snyder, 2013). This being noted, larger effect sizes might be found in the future if investigating

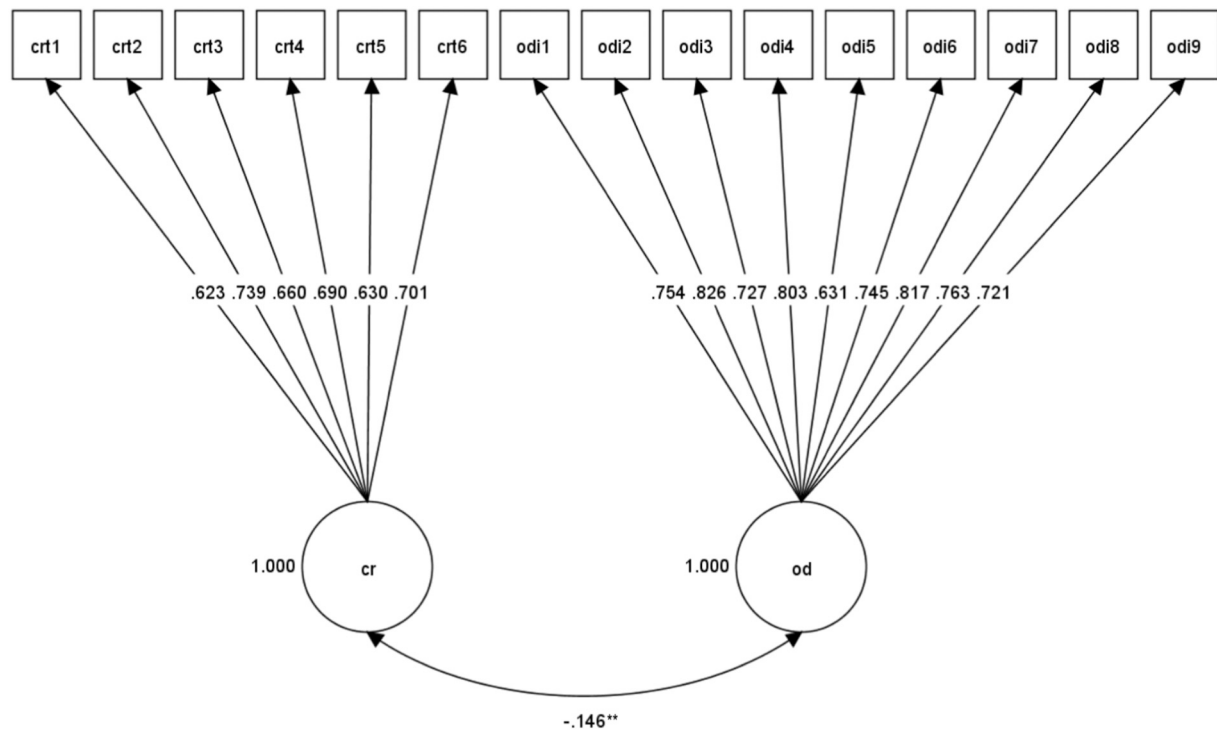


Fig. 2. Correlation corrected for measurement error between Occupational Depression (*od*) and Cognitive Reflection (*cr*). *odi1-odi9*: items of the Occupational Depression Inventory; *crt1-crt6*: items of the Cognitive Reflection Test; **: $p < .01$.

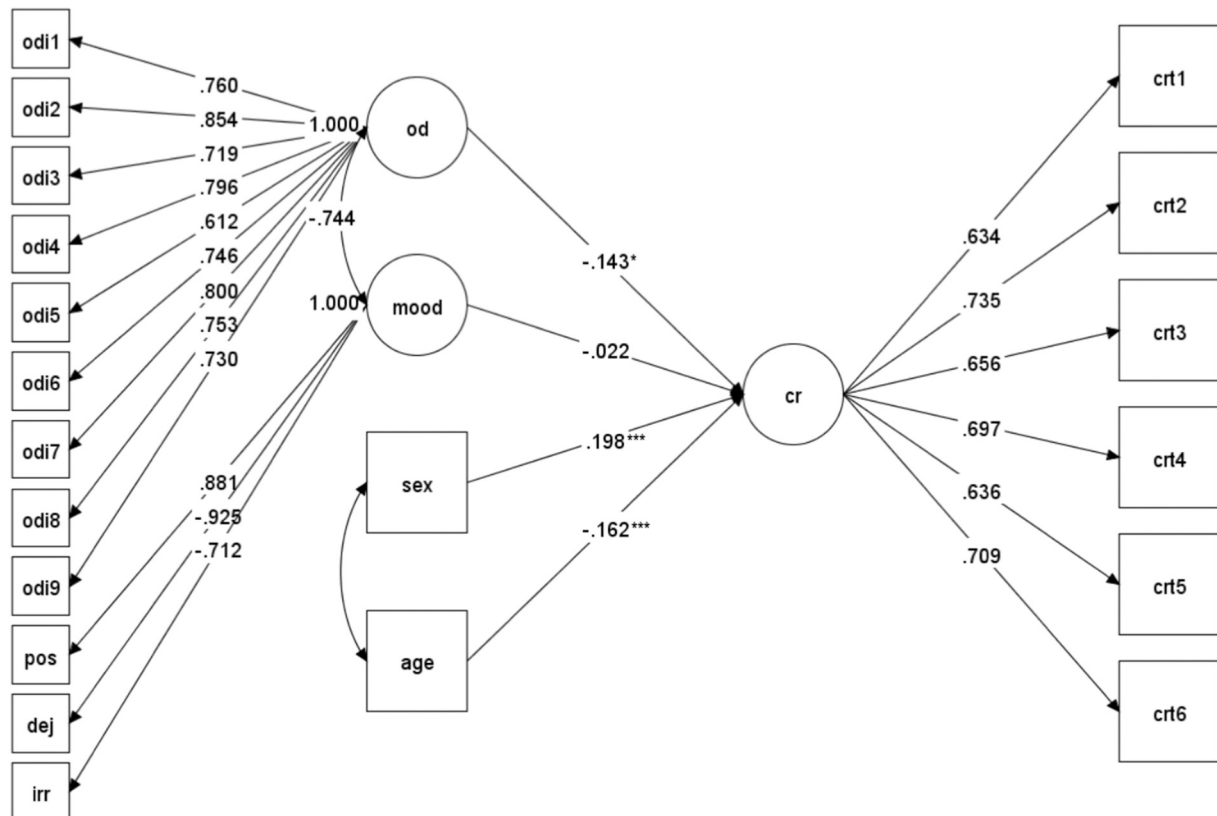


Fig. 3. Summary of structural regression analysis pertaining to work-attributed depressive symptoms (*od*: Occupational Depression factor; *cr*: Cognitive Reflection factor; *odi1-odi9*: items of the Occupational Depression Inventory; *crt1-crt6*: items of the Cognitive Reflection Test; *mood*: Transient Mood factor; *pos*: positive mood item; *dej*: dejected mood item; *irr*: irritable mood item; *: $p < .05$; ***: $p < .001$).

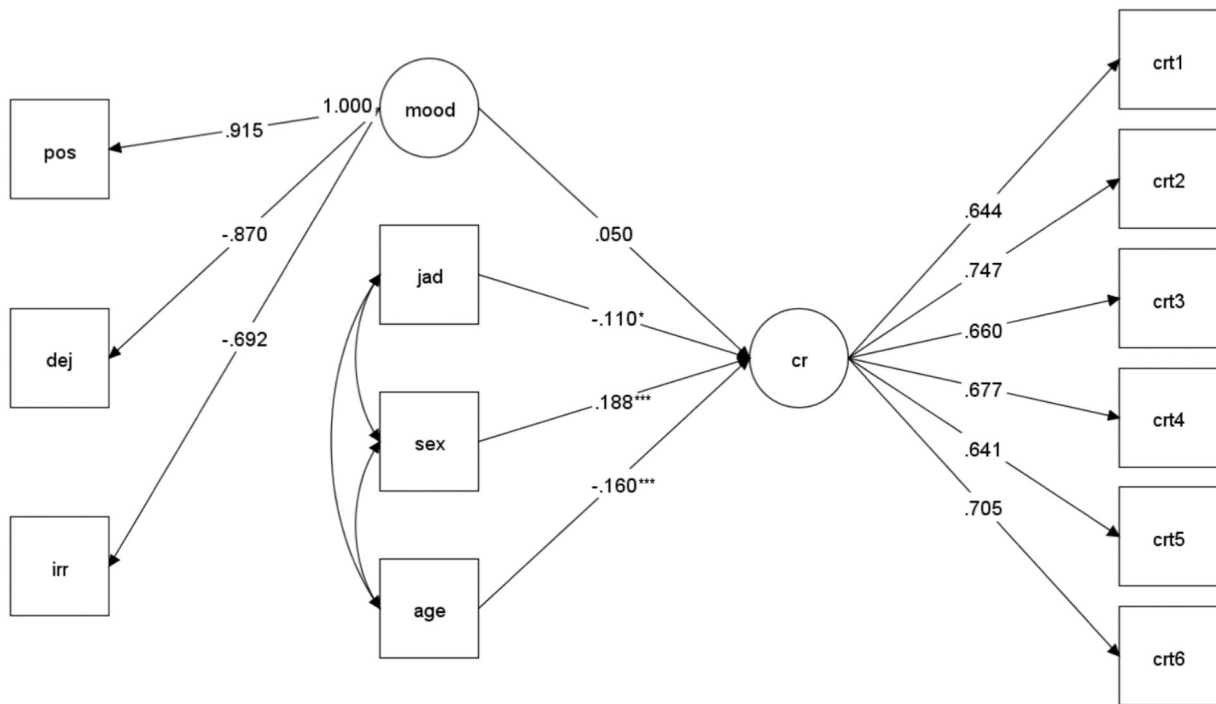


Fig. 4. Summary of structural regression analysis pertaining to job-ascribed depression (cr: Cognitive Reflection factor; crt1-crt6: items of the Cognitive Reflection Test; jad: job-ascribed depression [coded 0 for nondepressed individuals and 1 for depressed individuals]; mood: Transient Mood factor; pos: positive mood item; dej: dejected mood item; irr: irritable mood item; *: $p < .05$; ***: $p < .001$).

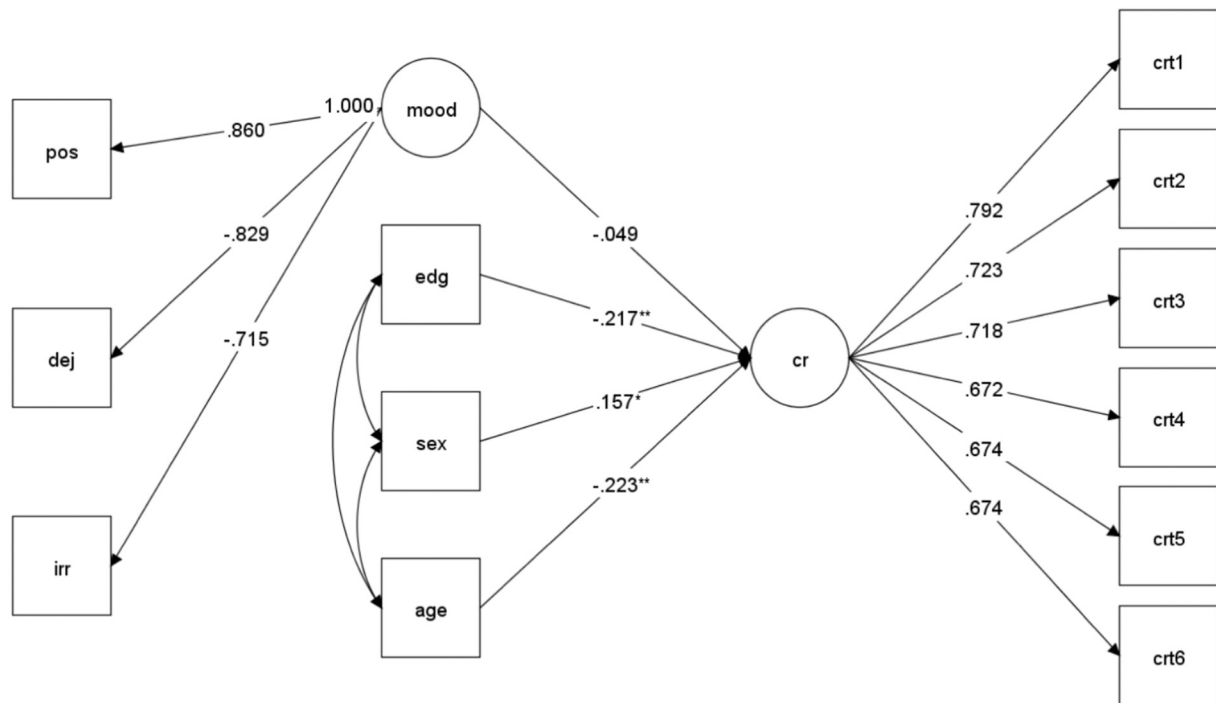


Fig. 5. Summary of structural regression analysis pertaining to extreme depression groups (cr: Cognitive Reflection factor; crt1-crt6: items of the Cognitive Reflection Test; edg: extreme depression groups, coded 0 for low ODI scorers [mean ODI score < 0.50] and 1 for depressed individuals; mood: Transient Mood factor; pos: positive mood item; dej: dejected mood item; irr: irritable mood item; *: $p < .05$; **: $p < .01$).

other types of workers. Indeed, because of the very nature of their activity, education professionals may benefit from above-average cognitive reserves allowing them to better compensate for the undermining effects of depressive symptoms on cognitive performance (Cabeza et al., 2018). More research is needed to clarify this point.

The CRT taps cognitive functions such as effortful reasoning and effective decision-making. Such cognitive functions play a role in educational staff members' daily work. By highlighting a link between ODI-based assessments and performance on the CRT, our study suggests that educational staff members' work-related efficacy may be affected by

Table 1

Summary of binary logistic regression—occupation depression predicting poor and good performance on the Cognitive Reflection Test.

Predictors	Wald statistic	p	OR (95% CI)	HL test
Model 1				$\chi^2(8) = 7.769$, $p = .456$
Age	12.726	.000	0.973 (0.959, 0.988)	
Sex	7.594	.006	1.730 (1.172, 2.555)	
Transient mood	0.003	.957	1.005 (0.843, 1.198)	
Work-attributed depressive symptoms	7.133	.008	0.687 (0.521, 0.905)	
Model 2				$\chi^2(8) = 11.005$, $p = .201$
Age	11.669	.001	0.974 (0.960, 0.989)	
Sex	8.669	.003	1.790 (1.215, 2.638)	
Transient mood	1.943	.163	0.904 (0.783, 1.042)	
Job-ascribed depression	4.107	.043	0.547 (0.305, 0.980)	
Model 3				$\chi^2(8) = 5.196$, $p = .736$
Age	4.504	.034	0.969 (0.941, 0.998)	
Sex	1.699	.192	1.598 (0.790, 3.234)	
Transient mood	1.691	.193	1.288 (0.879, 1.887)	
Extreme depression groups	8.158	.004	0.216 (0.075, 0.618)	

Notes. The CRT is approached as a dichotomous variable here. Job-ascribed depression was coded 0 for nondepressed individuals and 1 for depressed individuals. Extreme depression groups were coded 0 for low ODI scorers (mean ODI score < 0.50) and 1 for depressed individuals. Sex was coded 0 for women and 1 for men. ODI: Occupational Depression Inventory; OR: odds ratio; CI: confidence interval; HL test: Hosmer-Lemeshow goodness-of-fit test (a p value below .05 is suggestive of a poor fit).

workplace depression. Although education staff members may better compensate for the deleterious consequences of depression on cognitive performance thanks to higher levels of cognitive reserves, these professionals are also likely to be more dependent on high-level cognitive skills to perform their job duties. How this trade-off plays out should be a promising subject of future research. The concern raised is deepened by the observation that educational staff members often continue working despite being ill—a phenomenon known as presenteeism (Dudenhöffer et al., 2017; Johns, 2010).

Our study has at least three limitations. First, we relied on a convenience sample of self-selected participants. Therefore, the representativeness of our sample vis-à-vis its population of reference is unclear. This state of affairs implies that our prevalence estimation of job-ascribed depression, for instance, should be considered sample-specific. We note, however, that our study sample included, as intended, individuals with various degrees of work-attributed depressive symptoms. Such a characteristic is crucial for studying occupational depression's nomological network. Second, although the CRT focuses on key cognitive functions and correlates substantially with various indicators of intelligence and general cognitive ability (Grahek et al., 2019; Hartlage et al., 1993; Primi et al., 2016), the use of a comprehensive battery of cognitive tests would have been an added advantage. Third, the extent to which the observed decreases in cognitive performance are underpinned by genuine cognitive deficits (e.g., due to cortisol-mediated cell damage) rather than lack of motivation remains unclear (Grahek et al., 2019). This issue would be worth clarifying, notably for interventional purposes. Indeed, measures promoting task-

related motivation can improve depressed individuals' cognitive performance (Scheurich et al., 2008).

5. Conclusion

Research has shown that the ODI is associated with a host of job-related and health indicators, including job-leaving intentions and general health status. The present study suggests that ODI-based assessments predict objective decreases in cognitive performance. Our findings strengthen the view that the ODI is a useful tool for occupational health specialists. The links between occupational depression and objective job performance should be investigated in the future.

As we conclude, we would like to draw readers' attention to an important point. It is well-established that (a) insurmountable adversity (or unresolvable stress) is a key depressogenic factor in individuals *with no noticeable susceptibility to depression* and (b) the experience of insurmountable work adversity emerges through the interaction between workers' dispositions and working conditions (Bianchi et al., 2021; Bianchi & Schonfeld, 2020; Grahek et al., 2019). On these bases, “overindividualizing” the issue of occupational depression by overlooking the role of the work environment (e.g., management styles) would be unwise. The etiology of occupational depression needs to be approached *relationally*.

In many jobs, a decrease in cognitive performance can lead employees to be passed over or discharged. If there is evidence that the observed cognitive decrements are underlain by *job-related* depressive symptoms, organizations may have to inquire into potentially depressogenic working conditions instead of carelessly shutting out affected employees. The ODI may thus be useful for promoting a balanced examination of situations of job-related distress and impaired performance.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.paid.2021.111213>.

CRedit authorship contribution statement

RB developed the study concept and collected the data. RB and ISS analyzed the data and interpreted the results. RB wrote the first draft of the manuscript. Both authors reviewed and edited several versions of the manuscript. RB and ISS read and approved the final version of the manuscript for submission.

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