



# Bad guys perform better? The incremental predictive validity of the Dark Tetrad over Big Five and Honesty-Humility

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## ABSTRACT

This study analyzed incremental effects of the Dark Tetrad traits (i.e., narcissism, Machiavellianism, psychopathy, sadism) on job performance dimensions (i.e., task performance, contextual performance, counterproductive work behavior) over the Big Five and Honesty-Humility. Using a multi-occupational sample of 613 employees, results revealed positive outcomes depending on the specific Dark Tetrad trait analyzed. After including sociodemographic and work-related variables, Big Five, and Honesty-Humility, narcissism and Machiavellianism were positively related to task performance, whereas psychopathy and sadism were negative predictors. Narcissism was also a positive predictor of contextual performance, while sadism was positively related to counterproductive work behavior. These results show that the Dark Tetrad is useful in its own right and incrementally above normal-range personality measures.

## 1. Introduction

Meta-analytic evidence has confirmed the robustness of the “Big Five” personality dimensions to predict job performance, with conscientiousness and emotional stability being the best correlates (e.g., Barrick & Mount, 1991). However, research is exploring other personality traits, like “dark personality” (LeBreton, Shiverdecker & Grimaldi, 2018).

As dark personality demonstrates its value to predict job performance (e.g., Lee, Ashton, Morrison, Cordery & Dunlop, 2008), the debate over its components continues. While some authors follow a unidimensional approach using a measure of integrity, i.e., the Honesty-Humility dimension of HEXACO (Lee & Ashton, 2005), other researchers have defended a multidimensional structure using the “Dark Tetrad”, i.e., narcissism, Machiavellianism, psychopathy, and sadism (Paulhus, 2014). The present study investigates the incremental value of the Dark Tetrad over the Big Five and Honesty-Humility in the prediction of job performance in a multi-occupational sample.

### 1.1. Dimensionality of dark personality

Dark personality has mainly been studied as the “Dark Triad” (Paulhus & Williams, 2002), but recent research has suggested that everyday sadism should also be added, leading to the “Dark Tetrad” (Paulhus, 2014). Although dark traits have common characteristics,

such as callousness and readiness for emotional involvement, sadism includes unique traits (i.e., enjoyment of cruelty, subjugating nature) and has been shown to have incremental predictive validity (Buckels, Jones & Paulhus, 2013). Nevertheless, sadism in the workplace has not yet been examined.

As alternative to the multidimensional approach, some authors defend a single common factor, the “Dark Core” (Bertl, Pietschnig, Tran, Stieger & Voracek, 2017) similar to the existence of a General Factor of Personality (e.g., Van der Linden, te Nijenhuis & Bakker, 2010). Accordingly, some authors propose that Dark Tetrad components belong to the opposite pole of the Honesty-Humility dimension of the HEXACO model (Book et al., 2016; Hodson et al., 2018).

Therefore, the debate about the dark personality configuration seems to be one of the leading protagonists in the field of individual differences in general and in the workplace in particular (e.g., Schyns, 2015). Consequently, to test Dark Tetrad's predictive validity more rigorously, researchers should examine its predictive variance within the context of traditional measures of normal personality.

### 1.2. Dark personality and job performance

Job performance has three main dimensions: (1) *task performance* (TP), i.e., behaviors directly related to job description; (2) *contextual performance* (CP), i.e., behaviors going beyond job-specific activities and processes; and (3) *counterproductive work behavior* (CWB), i.e.,

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negative intentional behaviors that harm the well-being of the organization or its members (Rotundo & Sackett, 2002).

Empirical findings about the relationship between the Dark Triad and job performance are far from consistent. To clarify this issue, O'Boyle, Forsyth, Banks and McDaniel (2012) conducted a meta-analysis examining the criterion-validity of the Dark Triad for predicting TP and CWB. Findings indicated that Machiavellianism and psychopathy had small but significant negative relationships with TP. Furthermore, all Dark Triad traits were positively associated with CWB.

Regarding CP, the available research suggests a negative association between the Dark Triad and prosocial behaviors. For example, Judge, LePine and Rich (2006) found that narcissism was more strongly negatively related to CP than to TP.

CWB has received much more attention in the field of dark personality. After the meta-analysis of O'Boyle et al. (2012), which indicated that the Dark Triad explained 28% of the variance of workplace deviance, Grijalva and Newman (2015) found that narcissism alone explained an additional 9.2% of its variance over the Big Five. More recently, Jonason and O'Connor (2017) found that Machiavellianism and psychopathy accounted for a significant increment in variance ( $\Delta R^2 = 0.10$ ) in deviant behaviors, even after controlling for the Big Five.

The study of the relationship between Honesty-Humility and job performance is scarce. Lee, Ashton and de Vries (2005) found that this factor improved the predictive validity of delinquent behaviors in the workplace (e.g., theft, absenteeism, alcohol use) beyond the Big Five. Johnson, Rowatt and Petrini (2011) observed that Honesty-Humility correlated positively with supervisor ratings of overall job performance and was a unique predictor of performance ratings over and above the five other main HEXACO factors. However, as the authors acknowledged, their findings could be attributed to the participants' occupations (i.e., care-giving roles), limiting generalization to employees in dissimilar jobs and organizations. To our knowledge, the role of the Dark Tetrad components and Honesty-Humility in predicting job performance among different occupations has not yet been analyzed.

### 1.3. The present study

In the light of previous research, the aim of the current study is to explore the incremental validity of the dark personality –either conceptualized as (low) Honesty-Humility or as narcissism, Machiavellianism, and psychopathy (and sadism) – over and above the traditional personality (Big Five) in the prediction of three job performance dimensions among employees in different occupations and organizations. We intend to provide three specific contributions. First, to evaluate whether Honesty-Humility scores explain additional variance of the three main job performance dimensions (TP, CP, and CWB) beyond several basic sociodemographic and work experience characteristics and Big Five scores. If so, we could consider Honesty-Humility as a central measure of dark personality and relevant for job performance prediction. Second, to evaluate whether the Dark Triad scores can explain additional variance of job performance. If so, we could conclude that the Dark Triad is not simply an extreme manifestation of those personality traits, mainly Honesty-Humility. Third, to evaluate whether sadism adds additional variance in this context. If so, we would provide further evidence that sadism is relevant and could conclude that the Dark Tetrad is more appropriate than the Dark Triad.

## 2. Materials and methods

### 2.1. Participants and procedure

The sample comprised 613 employees (54% females;  $M_{\text{age}} = 38.78$ ,  $SD_{\text{age}} = 14.06$ ) from different organizations. Their average job tenure was 8.38 years ( $SD = 10.09$ ).

Data were collected with non-probability sampling. Authors

requested their university students to collaborate, distributing the questionnaire to the workers they knew. Students received training in questionnaire completion to provide the necessary guidance to their recruits. Workers who voluntarily agreed to participate were informed about the research objectives of this survey and the confidentiality and anonymity of their responses.

### 2.2. Measures

#### 2.2.1. Sociodemographic and work characteristic

We asked participants about their gender, age, and job tenure.

#### 2.2.2. Personality

The Big Five was assessed with the 60-item Spanish version of the NEO-FFI (Costa & McCrae, 2008), rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Honesty-Humility was measured with the 16-item Spanish version (Romero, Villar & López-Romero, 2015) of the HEXACO-PI-R (Lee & Ashton, 2004), rated on a 5-point scale of ranging from 1 (*totally disagree*) to 5 (*totally agree*).

#### 2.2.3. Dark tetrad

We applied the Dark Tetrad at Work scale by Thibault (2016) adapted to Spanish for this study (see supplementary material). This scale comprises 22 items rated on a 5-point Likert type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). It measures narcissism, Machiavellianism, psychopathy, and sadism.

#### 2.2.4. Job performance

We used the Individual Work Performance Questionnaire (Koopmans, 2015) adapted to Spanish by Ramos-Villagrasa, Barrada, Fernández-del-Río, and Koopmans (2019). It contains 18 items measuring TP, CP, and CWB on a 5-point rating scale (0 = *seldom* to 4 = *always* for TP and CP, and 0 = *never* to 4 = *often* for CWB).

### 2.3. Statistical analysis

We computed means, standard deviations, and reliabilities (Cronbach's  $\alpha$ ) of the variables. The associations of the Dark Tetrad traits and the other variables were assessed with Pearson correlations for numerical variables and with Cohen's  $d$  for gender. Predictive models of job performance were performed with hierarchical regression analysis with control variables in Step 1, Big Five in Step 2, Honesty-Humility in Step 3, Dark Triad in Step 4, and sadism in Step 5.

## 3. Results

### 3.1. Correlations between Dark Tetrad, Big Five, Honesty-Humility, and job performance

Descriptive statistics, reliabilities, and correlations among Dark Tetrad components and the rest of variables are shown in Table 1 (see supplementary material for the whole correlation matrix). Internal consistency coefficients ranged from 0.72 to 0.91, except for narcissism ( $\alpha = 0.61$ ).

Big Five traits presented small correlations with Dark Tetrad scores ( $M_{|r|} = 0.20$ , range  $[-0.34, 0.33]$ ). All Dark Tetrad traits correlated negatively with agreeableness ( $M_{|r|} = -0.27$ , range  $[-0.10, -0.33]$ ). The relationships between Honesty-Humility and Dark Tetrad traits were moderate ( $M_{|r|} = -0.35$ , range  $[-0.27, -0.47]$ ). Except for the association between psychopathy and sadism ( $r = 0.67$ ,  $p < .001$ ), the Dark Tetrad components presented low-medium associations ( $M_{|r|} = 0.20$ , range  $[.02, 0.35]$ ).

Regarding criteria, overall, Dark Tetrad scores presented low-medium correlations with job performance dimensions ( $M_{|r|} = 0.22$ , range  $[-0.28, 0.39]$ ). Whereas the CWB dimension had higher

**Table 1**

Descriptive statistics, reliability and correlations of the different variables.

	Descriptives <i>M</i>	<i>SD</i>	$\alpha$	Associations Narcissism	Machiavellianism	Psychopathy	Sadism
Pearson Correlations							
Narcissism	17.47	3.16	.61				
Machiavellianism	10.84	3.30	.75	.02			
Psychopathy	10.34	3.30	.78	.14**	.35***		
Sadism	8.20	3.44	.91	.21***	.28***	.67***	
Age	38.78	14.06		.09*	−0.07	−0.01	−0.03
Job tenure (years)	8.38	10.09		.07	−0.09*	.02	−0.01
Neuroticism	31.07	7.08	.79	−0.07	.33***	.27***	.21***
Extraversion	42.87	7.13	.83	.18***	−0.16***	−0.21***	−0.20***
Openness to experience	38.59	6.23	.73	.11*	−0.10*	−0.16***	−0.10*
Agreeableness	41.66	6.12	.72	−0.10*	−0.32***	−0.33***	−0.31***
Conscientiousness	44.91	5.99	.78	.14**	−0.17***	−0.34***	−0.25***
Honesty–Humility	57.75	8.64	.79	−0.27***	−0.28***	−0.47***	−0.39***
Task performance (TP)	15.83	3.10	.83	.23***	−0.08*	−0.28***	−0.25***
Contextual performance (CP)	20.27	6.31	.87	.34***	−0.19***	−0.14**	−0.09*
Counterproductive work behavior (CWB)	5.06	3.83	.77	.01	.28***	.39***	.35***
				Cohen's <i>d</i>			
Gender (Men = 0, Women = 1)	.54	.50		−0.27**	−0.06	−0.43***	−0.23**

Note.  $\alpha$  = Cronbach's alpha; *M* = mean; *SD* = standard deviation.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

associations with Dark Tetrad scores ( $M_{|r|} = 0.26$ ), CP presented lower correlations ( $M_{|r|} = 0.19$ ). Whereas the dark component psychopathy had higher associations with job performance ( $M_{|r|} = 0.27$ ), Machiavellianism presented lower correlations ( $M_{|r|} = 0.18$ ).

### 3.2. Prediction of job performance dimensions

Steps 3–5 of the regression analysis are shown in Table 2. The inclusion of Honesty–Humility (Step 3) did not increase the percentage of explained variance either of TP ( $\Delta R^2 = 0.00$ ,  $p = .875$ ) or of CP ( $\Delta R^2 = 0.00$ ,  $p = .290$ ), but it added an additional 3% for CWB ( $p < .001$ ). The incorporation of the Dark Triad (Step 4) to the models incremented by 6% the explained variance of TP ( $p < .001$ ),  $\Delta R^2 = 0.11$  ( $p < .001$ ) for CP, and  $\Delta R^2 = 0.04$  ( $p < .001$ ) for CWB. Finally, the inclusion of sadism (Step 5) led to an additional 1% of explained variance of TP and CWP ( $p = .029$  and  $p = .004$ , respectively) but no

increment for CP ( $\Delta R^2 = 0.00$ ,  $p = .086$ ).

We will only comment the statistically significant coefficients related to personality dimensions for Step 5. Regarding TP: Conscientiousness ( $\beta = 0.37$ ,  $p < .001$ ), narcissism ( $\beta = 0.23$ ,  $p < .001$ ), and Machiavellianism ( $\beta = 0.10$ ,  $p = .025$ ) were related to higher TP scores; psychopathy ( $\beta = -0.14$ ,  $p = .012$ ) and sadism ( $\beta = -0.11$ ,  $p = .029$ ) to lower TP scores. Regarding CP: openness ( $\beta = 0.17$ ), conscientiousness ( $\beta = 0.22$ ), and narcissism ( $\beta = 0.34$ ) were positively related to CP, whereas Machiavellianism ( $\beta = -0.18$ ) presented a negative association (all  $ps < 0.001$ ). Finally, whereas neuroticism ( $\beta = 0.12$ ,  $p = .011$ ) and sadism ( $\beta = 0.16$ ,  $p = .004$ ) had positive coefficients with CWB, Honesty–Humility had a negative association ( $\beta = -0.13$ ,  $p = .009$ ).

**Table 2**

Hierarchical regression analysis of three dimensions of job performance.

	Task performance			Contextual performance			Counterproductive work behavior		
	<i>R</i>	$\Delta R^2$	<i>p</i>	<i>R</i>	$\Delta R^2$	<i>p</i>	<i>R</i>	$\Delta R^2$	<i>p</i>
Step 1	.10	.01	.171	.12	.01	.064	.23	.05	< 0.001
Step 2	.51	.25	< 0.001	.44	.18	< 0.001	.42	.13	< 0.001
Step 3	.51	.00	.875	.44	.00	.290	.46	.03	< 0.001
Step 4	.57	.06	< 0.001	.55	.11	< 0.001	.50	.04	< 0.001
Step 5	.57	.01	.029	.56	.00	.086	.51	.01	.004
Coefficients Step 5	$\beta$	<i>p</i>		$\beta$	<i>p</i>		$\beta$	<i>p</i>	
Gender <sup>a</sup>	0.05	.184		−0.04	.320		−0.02	.586	
Age	−0.06	.228		−0.12	.020		−0.14	.009	
Job tenure	0.10	.041		0.02	.689		0.00	.984	
Neuroticism	0.01	.895		0.04	.403		0.12	.011	
Extraversion	0.08	.108		0.05	.297		0.01	.909	
Openness	−0.02	.579		0.17	< 0.001		0.02	.566	
Agreeableness	−0.03	.559		−0.08	.096		−0.03	.470	
Conscientiousness	0.37	< 0.001		0.22	< 0.001		−0.08	.073	
Honesty–Humility	0.01	.797		0.01	.826		−0.13	.009	
Narcissism	0.23	< 0.001		0.34	< 0.001		−0.03	.446	
Machiavellianism	0.10	.025		−0.18	< 0.001		0.07	.103	
Psychopathy	−0.14	.012		0.03	.609		0.11	.055	
Sadism	−0.11	.029		−0.09	.086		0.16	.004	

Note. <sup>a</sup>Coding: Men = 0, Women = 1. Step 1: gender, age, job tenure; Step 2: Big Five; Step 3: Honesty–Humility; Step 4: Dark Triad; Step 5: sadism. Bold values correspond to statistically significant associations,  $p < .05$ .

#### 4. Discussion

The present study provides evidence of the incremental value of the Dark Tetrad traits in the prediction of job performance beyond traditional traits of normal personality. Findings complement precedent research that did not explore the predictive validity of everyday sadism for workplace outcomes. Moreover, our results indicate that Dark Tetrad traits explain unique variance beyond Honesty-Humility, so they are not only the opposite pole of this factor. Therefore, our study contributes both to the field of personality research and to organizational outcomes.

It is interesting to note that the relationships between the Dark Tetrad and Honesty-Humility and the correlations among the dark traits were lower than expected according to previous evidence (Book et al., 2016; O'Boyle et al., 2012). Moreover, using the Honesty-Humility score to predict TP and CP did not increase the explained variance beyond the Big Five, whereas the Dark Tetrad did, so it seems remarkable that dark personality traits explain unique variance in the prediction of two job performance dimensions. In the case of CWB, although Honesty-Humility contributed positively to explain it, sadism was the most important predictor of the model. Hence, we conclude that Honesty-Humility is not a central measure of dark personality in the prediction of job performance although prior research highlighted opposite results (Johnson et al., 2011). This controversy could be due to the nature of job roles. As Johnson et al. pointed out, Honesty-Humility may be a good predictor of performance in jobs that require special attention, care, and empathy (e.g., medical services, social assistance) but not in other occupations. In the present study, using a multi-occupational sample, Dark Triad improved the predictive power of TP and CP over Honesty-Humility ( $R$  increased from 0.51 to 0.57 and from 0.44 to 0.55, respectively;  $\Delta R^2$  was 6% and 11%, respectively). The inclusion of sadism produced negligible increments in the predictive power of TP ( $R$  was 0.57 without and with sadism;  $\Delta R^2 = 1\%$ ). Regarding CWB, in line with previous research (e.g., Lee et al., 2005), Honesty-Humility showed a significant incremental predictive value over the Big Five ( $R$  increased from 0.42 to 0.46;  $\Delta R^2 = 3\%$ ), although the Dark Tetrad contributed to a larger degree ( $R$  increased from 0.46 to 0.51;  $\Delta R^2 = 5\%$ ). Our findings corroborate that dark personality traits are not simply the negative pole of Honesty-Humility, and they add something to "normal" personality traits.

We also examined whether sadism is a relevant dark personality trait and added unique variance over the Dark Triad in job performance prediction. It showed a high positive correlation with psychopathy. Additionally, although sadism did not much improve the prediction of job performance, it was the most important predictor of CWB compared to the other dark personality traits, including psychopathy. Although shared features of psychopathy and sadism (e.g., callousness; Paulhus, 2014) could explain the findings, alternative explanations are plausible. As Plouffe, Saklofske and Smith (2017) highlighted, the overlap could be due to the way of measuring sadism (i.e., using items that reflect psychopathic features, like callousness, and ignoring others that assess the essence of sadism, like the tendency toward subjugation and the enjoyment of cruelty). According to Buckels et al. (2013), "sadists possess an intrinsic appetitive motivation to inflict suffering on innocent others—a motivation that is absent in other dark personalities" (p. 7). Although Plouffe, Smith, & Saklofske, 2019 confirmed that sadism has its own place within the Dark Tetrad, empirical research about its unique variance in the prediction of maladaptive behaviors is scarce. Consequently, further research is needed to establish more solid conclusions about the unique variance of sadism in the prediction of workplace outcomes.

We expected that dark personalities would show small but significant negative relationships with TP and CP, in accordance with the meta-analytic evidence (O'Boyle et al., 2012). Surprisingly, narcissism and Machiavellianism were positively related to TP. There are several explanations. First, findings may be affected by the job performance

measure (i.e., self-reported). The traits of narcissism (i.e., exaggeration of one's achievements, blocking criticism) may have introduced bias in the results. If the low reliability of this scale is taken into account, our findings should be interpreted cautiously.

Second, as previous research has shown (Judge & LePine, 2007; Ones, Rubenzer & Faschingbauer, 2004; Spurk, Keller & Hirshi, 2015), some dark personality traits also have "bright sides" at the workplace and would be associated with career success or better performance in negotiations. Certain components of narcissism, like positive self-concept and high self-efficacy, could enhance job performance (Judge, Erez & Bono, 1998). On another hand, Machiavellians more often apply socially accepted manipulation tactics (i.e., charm, alliances) and possess good impulse regulation, which should contribute positively to behaviors directly related to job description. However, we also found a negative relationship between Machiavellianism and behaviors that go beyond job-specific activities and processes (i.e., CP), as previous research has noted (Becker & O'Hair, 2007). Machiavellians show cold selfishness and pure instrumentality (Jones & Paulhus, 2008), and low work commitment (Zettler, Friedrich & Hilbig, 2011). Consequently, they would not show personal support (e.g., teaching others useful knowledge or skills), organizational support (e.g., suggesting improvements for their organization), or conscientious initiative (e.g., persisting with extra effort despite difficult conditions), if they did not perceive self-benefits.

On the contrary, psychopathy and sadism were negatively associated with TP. Regarding psychopathy, our results support this negative association (LeBreton et al., 2018). Some of the hallmarks of this dark trait, like self-centered impulsivity or lack of forethought, could explain it. In the case of sadism, the lack of previous evidence in the workplace does not permit the comparison of results. As noted previously, psychopathy might explain at least some portion of its variance. In O'Boyle et al. (2012) meta-analysis, in fact, the variance of psychopathy overlapped with that of sadism. In any case, future research should examine in more depth in the role of sadism in everyday life, including job activity.

Findings are clearer regarding workplace deviant behaviors in line with meta-analytic evidence (O'Boyle et al., 2012). All dark personality traits, mainly psychopathy and sadism, were positively related to CWB, adding an additional 5% of explained variance beyond the Big Five. Psychopathy is made up of a lack of guilt or remorse and emotional shallowness, which can involve criminal activities (Paulhus & Williams, 2002) such as those intended to harm the well-being of the organization or its members (Rotundo & Sackett, 2002). Regarding sadism, there is still no evidence about its influence on organizational contexts. However, previous research has demonstrated a relationship between this dark personality trait and different disruptive behaviors (e.g., Buckels, Trapnell & Paulhus, 2014). It seems reasonable that people who show a dispositional tendency to engage in cruel behaviors for pleasure or dominance, disregarding others' needs, will not worry about the consequences of CWB to their organization.

##### 4.1. Limitations and future research

We acknowledge some limitations that might be addressed in future research. First, the overreliance on self-report measures may have affected the results. Self-report performance scores tend to be higher than other-rater scores, but also each source accounts for a different opportunity to observe performance (Ramos-Villagrasa, Barrada, Fernández del Río & Koopmans, 2019). Furthermore, measuring job performance with self-report has unique advantages that should be considered (e.g., Koopmans et al., 2013). We also should take into account the nature of measures of "bright" and "dark" personality. The scale used to assess the Dark Tetrad is a tailored-made and job-context personality measure, whereas instruments for assessing the Big Five and Honesty-Humility are not. This could explain why the Dark Tetrad may yield superior validity to the general personality measures



(Schmitt, 2014). According to Shaffer and Postlethwaite (2012), “contextualized measures of personality are stronger predictors of job performance than are noncontextualized measures of personality” (p. 464). In fact, most of the attitudes and behaviors included in the measures of normal personality used in the present study are unrelated to workplace behavior and could be reducing the predictive validity of behaviors circumscribed to the workplace. Future research should investigate refined measures of dark personality traits, including everyday sadism, in order to compare with the results presented herein.

Second, the job performance questionnaire used in our study did not include interpersonal behaviors in CP or CWB aimed at other organizational members. Taking into account the key feature of sadism (i.e., engaging in cruel, demeaning, or aggressive behaviors toward other people), the relationships between sadism and workplace behaviors related to others (e.g., managers, coworkers, subordinate employees) could be stronger than in the present study. Further research could examine more specifically the associations between the interpersonal dimensions of CP and CWB and sadistic personality.

## 5. Conclusions

Our findings highlight that the Dark Tetrad has incremental effects on the three principal dimensions of job performance over the Big Five and Honesty-Humility. We found that employees possessing higher levels of narcissism reported better TP and CP, whereas Machiavellians only reported better TP. However, psychopathic and sadistic employees showed low TP, and sadists performed more CWB. As the study of dark personality in organizational settings is still in its youth, we recommend continuing research on the influence of the Dark Tetrad traits, especially everyday sadism, in organizational outcomes and processes.

## Author contributions

All authors were substantially involved in the conceptualization and methodology of the study. Data curation was done by EFR and PJRV. JRB conducted the formal analysis. EFR and PJRV wrote the original draft. All authors contributed to the review and editing of the final manuscript.

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## Supplementary materials

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