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The role of colleague incivility in linking work-related stressors and job burnout. A cross-sectional study in a sample of faculty administrative employees

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Abstract

Background: *Colleague incivility is one of the subtlest forms of workplace aggression, referring to any low-intensity deviant behavior in violation of the norms of mutual respect with ambiguous intent to harm the target. Although a large corpus of literature has identified the negative consequences of colleague incivility for workers and their organizations, there is a paucity of studies aimed at examining the role played by job characteristics in triggering this form of aggression. The present study, referring to the work environment assumption of Einarsen (2000), proposes that workplace aggression is primarily affected by factors related to deficiencies in the psychosocial work environment. In this view, the present study aimed to test whether the relationships between stressors in the psychosocial work environment (i.e., workload, role conflict, and unfair reward) and burnout (i.e., exhaustion and cynicism) are mediated by colleague incivility.* **Methods:** *The study design was cross-sectional and non-randomized. In total, 659 administrative officers employed in a large-sized Italian university completed a self-report questionnaire. Regression and mediation analyses (using the SPSS PROCESS macro) were performed to test the study hypotheses.* **Findings:** *After adjusting for control variables (i.e., superior incivility, age, gender, interactions with teaching staff, and interactions with students), the analyses indicated that colleague incivility mediated the associations of role conflict and unfair reward with the two dimensions of burnout. In contrast, the mediating role of colleague incivility in the associations of workload with exhaustion and cynicism was not supported. Discussion: The present study shed light on the key role of colleague incivility in the linkage of variables describing job characteristics and job burnout. From a practical point of view, the present study suggests that in order to prevent colleague incivility, interventions such as job (re)design should be implemented.*

Background

Colleague incivility has been defined as any low-intensity deviant behavior in violation of the norms of mutual respect that is perpetrated by colleague(s) with ambiguous intent to harm the target (1). Examples of uncivil behaviors include rudeness (e.g., raising one's voice), disrespect (e.g., ignoring or excluding a worker), and unfairness (e.g., doing demeaning things to a worker). Similar to bullying, harassment, and social undermining, incivility can be considered a form of workplace aggression involving behaviors with the effect of harming the target (2). However, it is possible to identify some specific features that, from a conceptual point of view, differentiate incivility from other forms of

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aggression that may be perpetrated by colleague(s) (3). First, incivility is a mild form of aggression, as it refers only to low-intensity deviant behaviors. As opposed to bullying or harassment, incivility clearly does not include physical violence or intimidation. Second, the intent to harm the target is clear in other forms of aggression, such as bullying and social undermining; in incivility, this intentionality is less apparent. Indeed, the definition of incivility implies that the actions of the perpetrator may reflect indifference, unawareness, or oversight (3) rather than a desire to cause harm (1). Third, incivility refers to a non-necessarily systematic phenomenon. This represents a clear distinction from bullying, which refers to hostile behaviors systematically perpetrated over an extended period (4).

As noted by Sliter and colleagues (5), the consequences of stronger forms of aggression are more likely to be addressed than those of incivility because the former behaviors are comparatively infrequent and easy to identify. However, the harmful potential of incivility lies in its high frequency and partial invisibility, which increase the risk of the silent accumulation of negative effects over time.

Previous studies have highlighted that colleague incivility may represent a serious issue for both organizations and their employees. For instance, Pearson and Porath (6) demonstrated the association of incivility with financial loss for organizations, estimating that the costs of incivility are mostly related to inefficiency (e.g., project delays and distractions) and amount to $14,000 per employee annually. Moreover, targets of incivility tend to be less committed to their organizations (7, 8), less satisfied with their jobs (9), more inclined to report sleep disturbance (10), and more inclined to leave their professions (11). The literature has highlighted that a particularly serious risk for incivility is the development of burnout (12, 13, 14), a syndrome presenting energy depletion (i.e., emotional exhaustion) and attitudes of indifference toward work (i.e., cynicism) as core symptoms (15, 16).

With regard to the antecedents of colleague incivility, the literature has predominantly focused on the dyadic relationship between the instigator and the target. Several personality traits (e.g., neuroticism) (17, 18) and individual characteristics (e.g., age, gender, and body adiposity) (19, 20) have been identified as factors that may foster colleague incivility. More recently, research has provided evidence that the organizational system plays a crucial role in promoting colleague incivility. Further, this research has suggested that the work environment assumption (4), which has been profitably used to analyze sources of bullying (21, 22), may also be applied to incivility. This assumption proposes that workplace aggression is primarily caused by factors related to deficiencies in work design and organization. While some studies have provided evidence in favor of the psychosocial work environment assumption for workplace incivility (17, 23, 24), some gaps of knowledge remain to be filled in this body of literature. First, studies to date have analyzed few characteristics of the psychosocial work environment singularly in association with workplace incivility and its possible outcomes (25). This body of research could benefit from studies aimed at simultaneously examining the effects of various characteristics of the psychosocial work environment on colleague incivility, thus contributing to establish each one role adjusted for the effect of the others (26). This may help to the development of knowledge based on robust evidence concerning incivility predictors as well as the linking role of incivility between psychosocial work environment characteristics and psychological health outcomes. Second, while a large corpus of workplace incivility literature has investigated workers employed in healthcare settings (27), many other occupational sectors have received insufficient or no attention in this research area; thus, no empirical evidence regarding potential workplace incivility correlates (e.g., psychosocial work environment characteristics and psychological health outcomes) is available for these settings.

In light of this, the aim of the present study was to examine the association of colleague incivility with characteristics of the psychosocial work environment and burnout in a sample of administrative faculty employees (a category of workers that has received little attention in the literature). Based on the work environment assumption, we expected that colleague incivility would represent a link (i.e.,

mediator) between characteristics of the psychosocial work environment (i.e., workload, role conflict, and unfair reward) and burnout (i.e., emotional exhaustion and cynicism; Figure 1).

The present paper considers workload, role conflict, and unfair reward as characteristics of the psychosocial work environment. Workload is a job demand and refers to the amount of work assigned to or expected from a worker within a specified time period (28). Role conflict is defined as the simultaneous occurrence of two or more role expectations so that compliance with one makes it difficult to comply with the other (29). Unfair reward is conceptualized as a lack of fairness with regard to the reciprocity of efforts expended and reward received at work (30, 31). The choice of these specific dimensions was driven by evidence from the literature that these dimensions may be predictors of colleague incivility across various occupational contexts (32) and may thus affect psychological health (including burnout) among administrative employees in public administration (33, 34, 35).

Method

Data collection

Data were collected during November 2016 and January 2017 in a research program aimed at assessing working life quality within a large-sized public university in the north of Italy. The data used in the present study were collected within the administrative sector of this organization.

Self-report, paper-and-pencil questionnaires were administered during working hours in a series of meetings organized by the research team of the Department of Psychology in conference rooms provided by the employer organization. The voluntary nature of participation and the anonymity of the data were ensured. The research protocol was built in agreement with the Helsinki Declaration (and subsequent revisions) and Italian regulations on data protection and privacy (Law n. 196/2003). No ethical approval was required, as no vulnerable individuals, patients, or minors took part in the study.

Measures

The data were obtained using a self-report questionnaire including the following measures.

Independent variables. Workload was measured with five items from the work intensity scale (e.g., "I work with many different work tasks at the same time") by Melin et al (28) and one item from the Job Content Questionnaire (JCQ; "my job requires long periods of intense concentration on the task;"

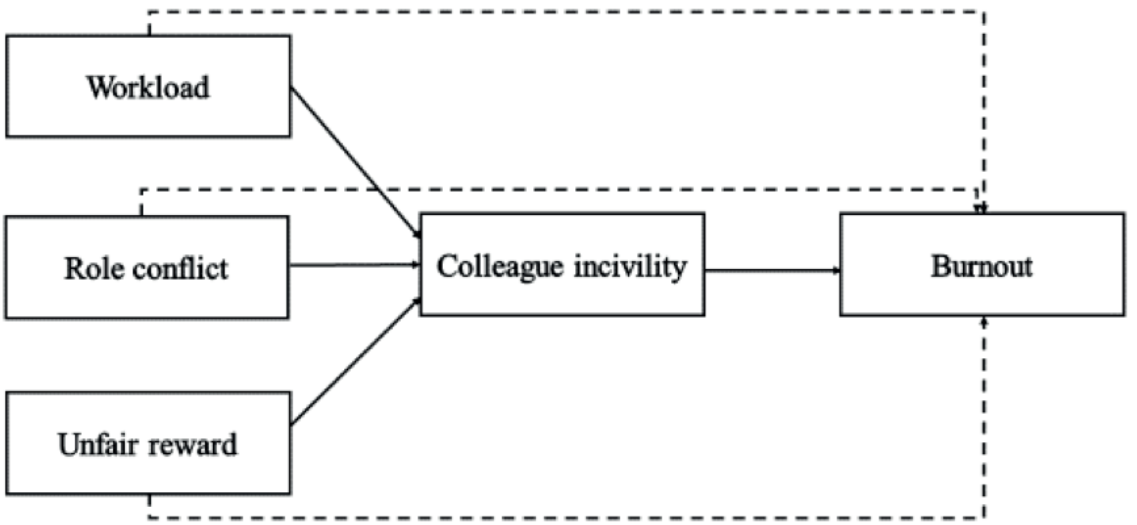

Figure 1 - The hypothesized model

response rate: 0 = never, 3 = always) (36)[1]. Role conflict was measured with four items (e.g., "contradictory demands are placed on you at work;" response rate: 0 = never, 3 = always) from the Copenhagen Psychosocial Questionnaire (COPSOQ) (37). Unfair reward was measured with four items (e.g., "considering all my effort and achievement, I receive the respect and the prestige I deserve at work;" response rate: 0 = completely disagree, 3 = completely agree) from the reward subscale from the Effort-Reward Imbalance (ERI) questionnaire by Siegrest et al. (30, 31). Since in the present study this dimension was conceptualize as a stressor (i.e., unfair reward), all the items of the scale, having a positive direction in the questionnaire, has been reversed prior to perform analyses.

Mediator. Colleague incivility was measured using a three-item scale (e.g., "colleagues excluded you") with a seven-point response scale (0 = never, 6 = daily) (38).

Outcome. The two burnout subdimensions—emotional exhaustion (e.g., "I feel burned out from my work") and cynicism (e.g., "I have become more cynical about whether my work contributes anything")—were measured using two five-item subscales from the Maslach Burnout Inventory-General Survey (15). All items were scored on a seven-point Likert scale, ranging from 0 ("never") to 6 ("every day").

Control variables. Superior incivility was included as a control variable based on evidence that it may play a role in affecting both colleague incivility (39) and burnout (40). Superior incivility was measured using a three-item scale (e.g., "supervisor ignored you") with a seven-point response scale (0 = never, 6 = daily) (38). The models used to test our hypotheses were also controlled by gender and age since the literature has recognized these factors as potential confounders in the relationships under study (26, 32). Finally, the literature has indicated that providing services for internal/external recipients may be considered a stressful activity that can affect both burnout and colleague incivility levels (41). In light of this, the models were also adjusted for these variables since the present sample included workers exposed to these work conditions, having students and/or academic teachers as recipients of their services.

Data analyses

Data analyses were performed using SPSS 26 (IBM, 2020) and the PROCESS application for SPSS developed by Preacher and Hayes (42).

Pearson correlations (for continuous variables) and ANOVAs (for categorical independent variables) were employed to assess the significance and directions of the associations between study variables. The mediating effect of colleague incivility was assessed using both the procedure outlined by Baron and Kenny (43) and the bootstrap method developed by Preacher and Hayes (42). Generally, the Baron and Kenny (43) method requires significance testing of the relationships between (a) the independent variable (X; i.e., workload, role conflict, and unfair reward) and the dependent variable (Y; i.e., exhaustion and cynicism); (b) the independent variable (X; i.e., workload, role conflict, and unfair reward) and the mediator (M; i.e., colleague incivility); and (c) the mediator (M; i.e., colleague incivility) and the dependent variable (Y; i.e., exhaustion and cynicism). Given these conditions, mediation was proved if the value of the X->Y path decreased (partial mediation) or stopped being significant (full mediation) after controlling for the X->M->Y paths. The bootstrap method developed by Preacher

[1] The choice of the scales to be included in the questionnaire has been driven by the literature. In addition, to further customize the questionnaire on the work/organizational context under study, during a preliminary phase of the research, a series of interviews has been conducted involving a smaller group of administrative employees. Regarding workload, content analysis of interviews confirmed that administrative employees has been mostly exposed to demands of cognitive type. In particular, the work intensity scale by Melin et al, (28) appears to be the most suitable to investigate workload in this occupational category, including items covering many aspects emerged from the interviews (e.g., job pressure, disturbing interruptions, working with many different tasks at the same time). However, interviewees also highlighted that the job of administrative employee may require long periods of intense concentration on the task. Therefore, as no item in the scale by Melin et al. (28) covers this aspect, an item from JCQ (36) has been added.

and Hayes (42) was performed using Model 4 of the PROCESS application. To estimate the path coefficients in the mediator model and generate bias-corrected bootstrapped confidence intervals (CIs) for direct and indirect effects, the bias-corrected 95% CI was calculated with 5,000 bootstrapping resamples. If the 95% CI of the direct and indirect effects did not contain zero, this indicated that the effect was significant.

Results

Descriptive statistics

At the time of the present study, the administrative sector of the university comprised 1,854 employees. In total, 659 employees (35.5%) correctly filled out and returned the questionnaire. Therefore, the final study sample included 659 employees, consisting of a majority of females (68% female, 31.7% male; .2% missing value). The mean age was 49.38 years (min = 31; max = 65; sd = 7.32), and the mean job tenure was 18.79 years (min = 1; max = 40; sd = 9.15). While 28.9% (no = 189) of the respondents spent more than 30% of their working time on interactions with both academic teachers and students, 254 respondents (38.8 %) spent this much time on interactions with academic teachers only and 55 respondents (8.4%) spent this much time on interactions with students only; 157 (24%) respondents did not interact with either students or academic teachers.

Table 1 displays the Pearson correlations between scales. All of these associations were significant and in the expected directions.

With regard to the associations between background variables and major study variables, the women reported higher levels of emotional exhaustion ($F = 18.26$, $p = .0001$; $m_{women} = 12.83$; $m_{men} = 10.23$) and larger workloads ($F = 9.92$, $p = .001$; $n = 10.23$; $m_{women} = 9.63$; $m_{men} = 8.66$) than the men.

While age was significantly associated with both workload ($r = -0.10$, $p = 0.01$) and unfair reward ($r = 0.11$, $p = 0.005$), job seniority was only significantly associated with unfair reward ($r = -0.19$, $p = 0.0001$).

Finally, the ANOVA revealed that employees who interacted with academic teachers reported significantly workloads ($F = 26.46$, $p = 0.0001$; $m = 9.83$ vs. $m = 8.26$) and higher levels of role conflict ($F = 20.90$, $p = 0.0001$; $m = 4.65$ vs. $m = 3.68$) than those who did not interact with academic teachers. On the other hand, no significant differences were found for those who interacted with students on any of the major study variables.

Mediation analysis

Table 2 displays the results of the mediation analysis. Model 1 assessed the influence of characteristics of the psychosocial work environment (independent variables, X) on colleague incivility (mediator, M). Overall, this model explained 21% of the variance. The inspection of the B values showed that workload was not significantly associated with colleague incivility; on the other hand, role conflict and unfair reward were found to significantly and positively affect colleague incivility. Among the control variables, only superior incivility and age were found to significantly predict colleague incivility.

Table 1 - Descriptive statistics and Pearson's correlations

	Cronbach's alpha	M (sd)	1	2	3	4	5	6	7
1. Colleague incivility	0.89	2.56 (3.72)	1	0.13**	0.31**	0.25**	0.36**	0.23**	0.27**
2. Workload	0.79	9.31 (3.63)		1	0.43**	0.15**	0.09*	0.39**	0.14**
3. Role Conflict	0.74	4.33 (2.52)			1	0.30**	0.27**	0.29**	0.36**
4. Unfair reward	0.76	5.11 (2.45)				1	0.25**	0.20**	0.29**
5. Superior incivility	0.92	1.97 (3.43)					1	0.148**	0.22**
6. Emotional exhaustion	0.85	11.99 (7.25)						1	0.59**
7. Cynicism	0.81	10.23 (6.78)							1

Note. **p< 0.01 (a due code). * p< 0.05

Table 2 - Regression analyses

Dependent variables	Model 1 Colleagues incivility	Model 2 Burnout		Model 3 Burnout	
	B(SE) *p* value	A) EE B(SE) *p* value	B) CY B(SE) *p* value	A) EE B(SE) *p* value	B) CY B(SE) *p* value
Predictors					
(Colleague incivility)	—	—	—	0.21 (0.08) p=.001	0.28 (0.08) p=0.0001
Workload	0. 02 (0.04) p =0.65	0.14 (0.08) p=0.09	-0.09 (0.08) p=0.29	0.64 (0.08) p =0.0001	-0.10 (0.08) p=0.216
Role conflict	0.28 (0.06) p=0.0001	0.30 (0.12) p=0.02	0.79 (0.12) p=0.0001	0.25 (0.13) p=0.06	0.72 (0.12) p=0.0001
Unfair reward	0.20 (0.06) p=0.01	0.27 (0.12) p=0.02	0.50 (0.11) p=0.0001	0.22 (0.12) p=0.07	0.45 (0.11) p=0.001
Superior incivility	0.29 (0.04) p=0.0001	0.65 (2.74) p=0.02	0.18 (0.08) p=0.03	0.08 (0.90) p=0.36	0.09 (0.08) p=0.285
Gender (0=f; 1=m)	-0.52 (0.30) p=0.09	-0.20 0(.60) p=0.001	-0.29 (0.58) p=0.62	-1.92 (0.60) p=0.001	-0.21 (0.58) p=0.71
Age	0.05 (0.01) p=0.01	0.03 (0.03) p=0.45	0.05 (0.03) p=0.20	0.03 (0.03) p=0.49	-0.06 (0.03) p=0.11
Int. with teachers (0=n; 1=y)	0.05 (0.31) p=0.87	0.45 (0.62) p=0.45	0.29 (0.56) p=0.73	0.50 (0.62) p=0.72	0.18 (0.59) p=0.76
Int. with students (0=n; 1=y)	-0.28 (0.29) p=0.32	-0.12 (0.58) p=0.83	-0.79 (0.60) p=0.60	-0.03 (0.57) p=0.95	0.43 (0.55) p=0.21
R^2	*0.21 0(.0001)*	*21 (0.0001)*	*0.17 (0.0001)*	*0.21(0.0001)*	*0.19 (p=0.0001)*

Note. EE=emotional exhaustion; CY=cynicism; B=Unstandardized regression coefficients; SE=standard errors; f=females; Int.=interactions; m=males; n=no; y=yes

Models 2a and 2b assessed the influence of the independent variables (X) on exhaustion and cynicism (dependent variables, Y), which explained 21% and 17% of the variance, respectively. Specifically, role conflict and unfair reward, were found to significantly predict both exhaustion and cynicism. Among the control variables, superior incivility affected both exhaustion and cynicism, whereas gender only affected exhaustion. In both models, workload, age, interaction with teaching staff, and interaction with students did not significantly affect the outcome variables.

After colleague incivility was included in Models 3a and 3b, the variance explained reached 21% and 19%, respectively. In Model 3a, workload (but not role conflict or unfair reward) significantly affected emotional exhaustion. Among the control variables, superior incivility was found to significantly predict both emotional exhaustion and cynicism, whereas gender only significantly predicted emotional exhaustion. In Model 3b, role conflict and unfair reward (but not workload) significantly predicted cynicism. Overall, these results suggested that colleague incivility did not mediate the relationship between workload and burnout (i.e., exhaustion and cynicism). Moreover, colleague incivility fully mediated the effects of role conflict and unfair reward on exhaustion. Finally, colleague incivility partially mediated the effects of role conflict and unfair reward on cynicism.

As shown in Table 3, the bootstrapping procedure further confirmed these findings. The 95% bias-corrected bootstrap CI for indirect effects indicated that colleague incivility mediated the effects of role conflict and unfair reward on both exhaustion and cynicism. On the other hand, colleague incivility did not mediate the relationship between workload and burnout. In addition, the findings suggested that

Table 3 - Bias-corrected bootstrapped confidence intervals (CI) for direct and indirect effects

	Bootstrap indirect effects on burnout (through colleague incivility)				**Bootstrap direct effects on burnout (through colleague incivility)**			
			95% CI				95% CI	
	B(SE)		LL	UL	B(SE)		LL	UL
	EE	CY	EE	CY	EE	CY	EE	CY
Workload	0.00 (0.01)	0.01 (0.01)	-0.02 0.02	-0.02 0.03	0.64 (0.01)	-0.11 (0.08)	0.47 0.81	-0.27 0.06
Role conflict	0.06 (0.03)	0.08 (0.03)	0.01 0.14	0.02 0.16	0.25 (0.13)	0.72 (0.13)	-0.01 0.51	0.45 0.97
Unfair reward	0.04 (0.02)	0.11 (0.41)	0.10 0 0.00	0.12 0.01	0.22 (0.12)	0.43 (0.12)	-0.46 0.02	0.67 0.20

Note. CI= confidence interval; LL= lower limit; UL =upper limit. B=unstandardized regression coefficients; SE=standard errors; EE=emotional exhaustion; CY=cynicism

colleague incivility fully mediated the effects of role conflict and unfair reward on emotional exhaustion, as the direct effects were found to be significant. On the other hand, regarding cynicism, colleague incivility was found to partially mediate its relationships with both role conflict and unfair reward.

Discussion

The aim of the present study was to examine the mediating role of colleague incivility between characteristics of the psychosocial work environment (i.e., workload, role conflict, and unfair reward) and two burnout dimensions (i.e., emotional exhaustion and cynicism). The findings revealed that colleague incivility fully mediated the effects of role conflict and unfair reward on emotional exhaustion. In addition, colleague incivility was found to partially mediate the relationships of both role conflict and unfair reward with cynicism. On the other hand, colleague incivility did not mediate the relationship between workload and burnout.

Generally speaking, our findings mostly confirmed our expectations based on the work environment assumption (4), suggesting that a deficient psychosocial work environment may favor flourishing incivility. In particular, our findings indicated that in workplaces characterized by an unfair reward system and intra-role conflict, low-intensity aggressive behaviors may occur more frequently among colleagues, thus increasing the risk of burnout.

The only unexpected result was the nonsignificant association between workload and colleague incivility. However, this finding is not completely new in the literature. In a study of a mixed sample of workers, Taylor and Kluemper (17) found that role conflict (not role overload) significantly affected incivility. A more recent cross-national study of a sample of nurses (24) revealed a significant association between workload and incivility among the US respondents but not among the Italian respondents. Overall, our results could be explained by considering the nature of the work characteristics under study. Role conflict and unfair reward are hindrances by nature and may thus lead to the development of frustration and anger among workers (44). When there is no opportunity for workers to modify a situation perceived as a hindrance, the negative feelings evoked by this situation may be redirected toward colleagues in the form of aggressive behaviors (1). On the other hand, although workload is commonly considered a hindrance, some studies have demonstrated that it may be perceived as a challenge by workers (especially under certain conditions) and therefore may not necessarily lead to negative outcomes (45). Moreover, as suggested by Taylor and Kluemper (17), another explanation for the nonsignificant role of workload could be that intense job demands may overwhelm workers, requiring them to canalize all available work resources (e.g., energy and time) to formally prescribed job duties; this would limit the resources

available for workers to spend on low-intensity aggressive behaviors, such as incivility.

Another aspect of the findings that should be highlighted relates to the differing intensity of the mediation mechanism across the models involving the two burnout dimensions. Incivility was found to have a fully mediating role in the models including exhaustion and a partially mediating role in the models including cynicism as an outcome. These results confirmed those of the previous literature, which demonstrated that incivility works as a hindrance demand and plays a central role in the development of loss spirals, resulting in energy depletion and hampered health (i.e., exhaustion) for targeted workers (32). The finding that characteristics of the psychosocial work environment were weakly (albeit significantly) associated with cynicism through incivility may be explained by referring to previous research focused on examining the development of burnout symptomatology over time (46). According to this previous study, whereas emotional exhaustion can be considered an early burnout symptom, cynicism tends to appear in later phases, representing a sign of chronicization. Based on this evidence, we can assume that while emotional exhaustion represents a short-term outcome, cynicism represents a medium-term outcome of the presently examined chains (i.e., role conflict/incivility and unfair reward/incivility) despite the cross-sectional nature of the present study. In this view, it is plausible that phenomena occurring over a shorter period of time (e.g., incivility and exhaustion) would show stronger correlations if compared with phenomena occurring over a longer period (e.g., incivility and cynicism). However, future longitudinal studies should be carried out to shed light on this point.

In conclusion, one of the main added values of the present study was that it shed light on the key role of colleague incivility in linking variables describing the psychosocial work environment and burnout within an understudied occupational field (i.e., administrative faculty employees). The complex interrelations that emerged among these phenomena should be carefully considered in the planning of interventions to address colleague incivility in the administrative context. Previous studies on incivility have mostly focused on the association of incivility with the characteristics of the targets or the social environment, leading to the identification of the *zero tolerance* perspective (6) as one of the most effective ways to reduce incivility. Although our study does not deny the importance of investing in this direction, it suggests that interventions in the psychosocial work environment should be considered to reduce incivility. Since job characteristics were found to be determinants of exhaustion via incivility, interventions at the task level (e.g., job redesign programs) may be crucial for promoting a positive social climate, thus preventing burnout among this segment of workers. Also, organizational reward system interventions may be used to improve fairness and eliminate imbalances between effort and recompense, thus contrasting incivility and burnout among this segment of workers.

Limitations

The most relevant limitation of the present study was its cross-sectional design. Future research should employ a longitudinal design to explore the cross-lagged associations between the examined constructs. Longitudinal studies may also be useful for understanding whether and how the relationships between these constructs change over time.

Another limitation was that all the measures employed in this study were self-report measures. Data coming from a single source may introduce the issue of common method variance. Future studies may benefit from research designs including a combination of objective (e.g., administrative data on turnover) and subjective measures or data from multiple sources (i.e., colleagues and supervisors).

The literature recognizes that personality traits may affect incivility exposure (26). Therefore, another limitation was that personality traits were not considered as control variables in our study.

Finally, the use of a nonrandomized sample represented a limiting factor for this study. Therefore, caution should be exercised when generalizing the results to other populations of the Italian administrative sector.

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