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Ambivalent identification mediates the relationship between organizational justice and stress

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The present study aims to examine the relationship between organizational justice and employee stress through the lenses of social identity theory and the ambivalent identification process. The research hypotheses assume that employees working in organizational environments with low levels of justice could experience more stress, and this relationship is also mediated by ambivalent identification. In other words, the mediating mechanism of this relation posited that low levels of organizational justice were associated with high levels of ambivalent identification, which in turn increased levels of work-related stress. Across a field study in several organizations from healthcare sectors, results confirmed that employees treated with less fairness experienced high ambivalence toward their organization, which increased their perception of stress, i.e., work-related burnout, client-related burnout, physical symptoms, and interpersonal strain at work. Furthermore, results supported only a full mediation model, in which the direct relationship between organizational justice and stress was not significant. The present results make an important contribution to the research literature on justice: the inclusion of the mediator variable, namely, ambivalent identification, drops the expected direct effect of organizational justice on stress, suggesting a call for action in adopting the social identity perspective in addition to organizational justice models, and specifically introducing the study of a detrimental form of identification, such as ambivalent identification. Limitations and practical implications of the study were discussed.

KEYWORDS

ambivalent identification, organizational justice, stress, social identity, work-related burnout, client-related burnout, interpersonal strain, physical symptoms

1 Introduction

What could be more frustrating than a colleague receiving credit for a job you did? It is generally accepted that when facing unfair situations, the immediate reaction could be anger or negative emotions (Fox et al., 2001; Pérez-Rodríguez et al., 2019), but sometimes such conditions could have even worse effects on both individuals and organizations, like employee turnover intention or withdrawal (Conlon et al., 2005; Moon, 2017; Zhou et al., 2022). Nevertheless, if employees have a strong desire to keep working with the perpetrator of the injustice, or with the group of colleagues they admire, their reactions or consequences could not be so consistent or linear. In literature, the investigation of employees' reactions more rarely takes into account the complexity of contradictory inner feelings that arise from a disjunction between people's aspirations and desires and the actual possibility of realizing them. On the other hand, studies over the past three decades have provided important information about the negative effects of organizational (in)justice or unfairness (e.g., Colquitt et al., 2001), across

cultures and countries, specifically on health and psychological wellbeing (Fischer, 2013; Silva and Caetano, 2016). Most of the literature recognizes that a perceived lack of organizational justice or fairness represents an important psychosocial risk factor particularly related to high levels of stress, that may even lead to coronary heart disease (Sara et al., 2018), inducing a profound negative impact on employee well-being. Hence, understanding the relationship between organizational justice and stress is vital for organizations aiming to enhance employee well-being and organizational performance. By identifying how organizational injustice can increase employee stress levels, organizations can develop targeted interventions and policies to promote a fair and supportive work environment, limiting the negative consequences for the whole organization. Accordingly, the purpose of this investigation is not only to explore the relationship between organizational justice and stress, but also to propose an explanatory mechanism for this link. Thus, the present study has two aims. First, testing the direct relationship between organizational justice and different outcomes of stress. Second, exploring how this relationship works, hypothesizing the mediating role of ambivalent identification between the justice-stress relationship, that is adopting the social identity perspective to empirically evaluate whether the mediator explains why the effect of organizational justice on stress happens.

To date, the field of organizational justice has produced different models of studying employee perceptions of fairness and their correlates (see, e.g., Greenberg, 1987; Greenberg and Colquitt, 2013; Cropanzano and Ambrose, 2015). Of particular concern for employee health is the relationship between organizational justice and work-related stress, which has been widely supported by empirical literature (see Cropanzano and Wright, 2011). For example, researchers found that low perceived justice was associated with sickness absence from work, in presence of poor self-rated health, and minor psychiatric disorders (Elovainio et al., 2002). Fox et al. (2001) used a theoretical job stress framework considering organizational justice as a fundamental job stressor that could lead to behavioral strain responses, such as counterproductive work behaviors, and negative emotions (Fox et al., 2001). The link between organizational justice and perceived stress was also found in a study by Judge and Colquitt (2004), who examined the mediational role of work-family conflict in this relationship. Another study on this link confirmed that two specific dimensions of organizational justice, namely, distributive and procedural, were related to a general measure of job stress (Lambert et al., 2007). The organizational justice models have also been applied to examine their association with stress-related disorders, like sickness absence (Head et al., 2007), but also burnout, and depression (Liljegren and Ekberg, 2009; Ndjaboulé et al., 2012; Eib et al., 2018). Overall, these studies provide evidence for the negative impact of organizational (in)justice on employee health and well-being, although much of the literature mainly focuses on mental health and psychiatric disorders (e.g., Elovainio et al., 2009; Ndjaboulé et al., 2012; Fischer et al., 2014). As a matter of fact, only a limited number of studies have examined the association between organizational justice and specific measures of work-related stress. Accordingly, based on the literature reviewed here, and the consideration that more attention should be paid to unexplored outcomes (Cachón-Alonso and Elovainio, 2022), the following hypothesis was posited:

Hypothesis 1: Organizational justice will be negatively related to perceptions of stress, i.e., work-related burnout, client-related burnout, physical symptoms, and interpersonal strain at work.

With regard to the mechanisms that can explain the association between organizational justice and stress, there is still very little scientific understanding of this aspect. Although some research has explored this link using different theoretical frameworks (see, e.g., Pérez-Rodríguez et al., 2019; Murtaza et al., 2023), much of the perspective adopted considers employees as isolated agents within the organization in which they work, neglecting that they are immersed in social contexts. As Tajfel and Turner stated: "In our judgments of other people, [...] in our work relations, in our concern with justice, we do not act as isolated individuals but as social beings who derive an important part of our identity from the human groups and social categories we belong to; and we act in accordance with this awareness" (Tajfel et al., 1984, p. 5). Building on social identity and selfcategorization perspectives, we can thus explain why individuals interpret external stimuli as stressors, and what happens when they cannot rely on their internal resources - such as their strong identification with their organization - to cope with stress. According to this perspective, the organizational identity becomes part of individuals' self-concept (Tajfel and Turner, 1979; Turner et al., 1987), experiencing a particular type of social identity, that is, employee identification towards the organization (Ashforth and Mael, 1989), protecting individuals from developing stress responses (Steffens et al., 2017; Ciampa et al., 2019). Therefore, considering that the definition of ourselves varies as a function of contexts, employees' social identity cannot become salient when injustice and inequity characterize the organization and people are treated unfairly. In such conditions, indeed, the sense of "we" or "us" may not raise stronger than the sense of "I" or "me," undermining the process to define "myself" as a group member (in contrast to outgroup members). Consequently, when the contextual conditions are not favorable, i.e., in the presence of organizational injustice, individuals could develop conflicting emotions and cognitions toward the organization, simultaneously identifying with some aspects while rejecting other aspects of their organization that they do not want to integrate into their selfdefinition, developing contradictory and ambivalent attachments (Pratt, 2000; Kreiner and Ashforth, 2004). Ambivalent identities may be elicited in such situations because individuals must struggle between a context discouraging their social identity (or rather not fostering it), and their implicit desire for belongingness. The social need of belonging to the ingroup is indeed a primary inner motivator that comes from the need to enhance social self-esteem and to achieve collective self-actualization, which is not less important than the need for personal self-actualization and self-esteem (Leavitt, 1995; Haslam, 2004, p. 386). Moreover, Ashforth et al. (2014) argue that organizational dualities are particularly likely to provoke ambivalence because they simultaneously promote opposite norms, values, and beliefs about what is and what is not acceptable within the ingroup (e.g., competition versus cooperation). For example, when the management establishes a collective goal, but employees are not treated fairly receiving different honors and payoffs based on the boss' preferences, this could implicitly spread the idea that cooperation for a common goal does not benefit the whole group. Consequently, a violation of the explicit norms settled by the management about, e.g., rewarding a completed task, can induce employees to compete against

each other, instead of cooperating for a common goal. Such dualities are thus a potential way to develop and spread "paradoxes of belonging" (Smith and Berg, 1987): all those situations that we can call injustices or unfair conditions can easily undermine the sense of "us" of the group, inducing ambivalent feelings, particularly in employees who do not benefit from unequal treatments.

About the consequences of ambivalent identification on employee health, this relationship has not been thoroughly examined in previous research within organizational psychology, despite the literature offering some general models of potential adverse effects of ambivalence (Pratt, 2000; Rothman et al., 2017; Zhao and Zhou, 2021; Wu et al., 2023). For example, a study by Ciampa et al. (2019) revealed that ambivalent identification was positively associated with ego depletion and emotional exhaustion (Ciampa et al., 2019). More specifically, their results showed that the negative association between positive organizational identification and strain was significant and stronger for employees experiencing low levels of ambivalence, meaning that the presence of ambivalence decreases the likelihood that a clear identification may protect against stress reactions (Ciampa et al., 2019). In the same vein, another recent study linked ambivalent leadership to different mental health outcomes in employees, i.e., depression, anxiety, vital exhaustion, and fatigue, both at within-group and between-group levels (Herr et al., 2022). In summary, according to the literature reviewed here, there are reasons to expect that ambivalent identification would mediate the relationship between (in) justice and stress, representing a detrimental factor for employee health. Therefore, the following two predictions were advanced:

Hypothesis 2: Organizational justice will be negatively related to ambivalent identification.

Hypothesis 3: The negative relationships among organizational justice and work-related burnout, client-related burnout, physical symptoms, and interpersonal strain at work will be partially mediated by ambivalent identification, which, in turn, will be positively associated with such stress outcomes.

Overall, the present study can contribute to the literature by highlighting the role of ambivalent identification, a specific form of identification – related to the simultaneous coexistence of opposite orientations toward the organization – still overlooked in this area of research. Moreover, the focus on this negative dimension can be crucial in designing preventive programs aimed to develop individual and organizational resources to counteract organizational injustice and its consequences.

2 Method

2.1 Participants and procedures

Several organizations from public and private healthcare sectors were involved in the present study. Specifically, the target sample consisted of employees working in public hospitals and private clinics accredited by the National Health System, where the typical organizational structure would usually be a combination of a hierarchical and departmental structure. These organizational characteristics allowed the possibility of studying organizational

justice in the presence of a chain of command, where some levels are subordinate to another level, but employees are organized in wards that have their own tasks. Furthermore, to select similar environmental conditions, only wards with staff working with hospitalized patients were included, while emergency and intensive care units were excluded. The employees invited to participate in the study were physicians, medical technicians, nurses, and administrative staff, excluding the top level of administrative services, such as the board of directors, executive officers, presidents, and vice presidents. A letter of invitation to participate in the study was sent to managers, explaining the purpose of this investigation, and requesting that employees with the required characteristics be invited to complete an anonymous questionnaire containing the research measures. Participation was completely voluntary, and the questionnaire was delivered to the managers via a unique online link that included the informed consent materials, which explained the anonymous nature of the data collection and their rights as research participants, while not asking for any personal information. After accepting the informed consent, a total of 195 useful questionnaires were returned from eleven regions of Italy. The average age of respondents was 47.95 (SD = 10.14), and the vast majority were male: only 29% were female, 16% were missing. Over half of the participants were doctors (55%), medical technicians (16%), nurses (10%), and administrative staff (4%; 16% were missing). Finally, average organizational tenure was 14.8 years (SD = 9.95), and work experience was 19.4 years (SD = 10.97).

2.2 Measures

Organizational Justice Index was measured using the Italian version (Capone and Petrillo, 2016) of the 10-item scale from Hoy and Tarter (2004). A sample item was "In this organization, all workers are treated fairly." Respondents indicated their agreement with each statement from 1 (strongly disagree) to 5 (strongly agree). The reliability of the scale was α = 0.92.

Ambivalent Identification was measured with the 6-item scale developed by Kreiner and Ashforth (2004), using the Italian version translated by Ciampa (2018) and Ciampa et al. (2019, 2021). A sample item was "I have mixed feelings about my affiliation with this organization." Respondents indicated their agreement with each statement from 1 (strongly disagree) to 5 (strongly agree). The reliability of the scale was α = 0.83.

Work-related Burnout (CBI) was measured using the Italian version of the 7-item subscale from the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005; Avanzi et al., 2013). Respondents indicated how often they experienced each statement on a Likert scale from 1 (never) to 5 (always). A sample item was "Are you exhausted in the morning at the thought of another day at work." The reliability of the scale was $\alpha = 0.82$.

Client-related Burnout (CBI) was measured using the Italian version of the 6-item subscale also selected from the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005; Avanzi et al., 2013). Participants indicated how much they experienced each statement on a Likert scale from 1 (not at all) to 5 (extremely), according to the original scale. A sample item was "Do you find it frustrating to work with clients?". The reliability of the scale was $\alpha = 0.85$.

Physical Symptoms Inventory (PSI) was measured with a 13-item scale developed by Spector and Jex (1998). Items included symptoms

such as "Headache," "Backache," "Trouble sleeping," and so on. Participants indicated how often they experienced each symptom from 1 (not at all) to 5 (every day). The reliability of the scale was $\alpha = 0.84$.

Interpersonal Strain at Work Scale (ISW) was measured with the Italian 6-item scale (Borgogni et al., 2012), rated on a 7-point frequency scale ranging from 0 (never) to 6 (daily). A sample item was "At work, I treat others in a cold and detached manner." The reliability of the scale was $\alpha = 0.88$.

Control variables. Based on previous literature, several sociodemographic variables, namely, age, sex, work experience, organizational tenure, and working hours, were included in the questionnaire as control variables that may potentially influence stress outcomes and employee well-being (see, e.g., Purvanova and Muros, 2010; Boyas et al., 2013; Antao et al., 2022; Lee et al., 2022; Schroeder et al., 2022). We used one-item measures for all control variables. Working hours were measured with the question "How many hours do you work in total during a week?," and employees were asked to choose an option among "20-29," "30-39," "40-49," "50-59," "60-69" hours. However, preliminary data analysis showed that none of the control variables was significantly associated with the dependent variables, apart from working hours, which showed a statistically significant difference only between 30-39 h and 50-59 h on work-related burnout $(F_{(4,160)} = 3.830, p < 0.01, \eta^2 = 0.09)$, but not on other dependent variables. Accordingly, the hypothesized model was performed by controlling for working hours, and then it was compared to the same model without this control variable. From the comparison it emerged that standardized coefficients of the independent variables with and without the control variable differed by less than 0.1, therefore differences were considered negligible (Becker, 2005), as suggested by Becker et al. (2016) recommendations. Accordingly, only the results without the control variable were reported.

2.3 Analytic strategy

Structural equation models with latent variables were carried out with Mplus 8 (Muthén and Muthén, 1998-2017). Due to a moderate violation of the normality of some variables, the Weighted Least Squares Mean and Variance (WLSMV) estimation was used (Asparouhov and Muthén, 2010), which does not assume normally distributed variables and provides the best option for modeling ordered data (Beauducel and Herzberg, 2006; Brown, 2006). First, the hypothesized model was performed and compared with alternative models by evaluating goodness-of-fit indices (Kline, 2011). Second, to determine the size and significance of the indirect effects, estimates were bootstrapped 10,000 times from the final structural model and analyzed their standardized estimates along with the corresponding 95% confidence intervals (MacKinnon, 2008).

3 Results

3.1 Test of measurement model

To test the measurement model, a confirmatory factor analysis was performed using WLSMV estimation, consisting of the hypothesized six latent variables (i.e., organizational justice index,

ambivalent identification, work-related burnout, client-related burnout, physical symptoms, and interpersonal strain at work) and their respective item-level indicators. The fit of this model was then compared with three plausible alternative models: one that combined the four outcomes of stress into a single factor, one that combined the independent variable and the mediator into a single factor, and finally, one that combined all the variables into a single factor. Based on the model fit indices shown in Table 1 and the robust Chi-Square Difference Testing of the nested models (Asparouhov and Muthén, 2006), the best-fitting model appeared to be the hypothesized six-factor model, since the models with constrained parameters appeared statistically different from the hypothesized model, indicating that the model with less parameters should be preferable. Moreover, each indicator had statistically significant factor loadings (p < 0.001) on its assigned dimension, confirming that a model considering six latent variables was appropriate.

3.2 Descriptive statistics and hypothesis tests

Table 2 presents the descriptive statistics, scale reliabilities, and intercorrelations among the study variables.

To test the hypothesized model, a structural equation model (Model 1) was performed using the WLSMV method of estimation. In this model, the direct and indirect effects were posited among organizational justice and the four outcomes. This model showed an adequate fit to the data: $\chi^2_{(1065)}$ =1387.152, p=0.000; CFI=0.966; TLI=0.964, RMSEA=0.039, C.I.=0.033-0.045; SRMR=0.079. However, contrary to Hypothesis 1, there were not statistically significant effects between organizational justice and work-related burnout (β =-0.04, p=0.652), physical symptoms (β =-0.01, p=0.890), and interpersonal strain (β =-0.10, p=0.146). Nevertheless, as predicted by Hypothesis 2, organizational justice exerted a negative significant effect of -0.42 (p<0.001) on ambivalent identification.

Considering the non-significant effects of organizational justice on each outcome, an alternative structural equation model (Model 2) was performed, in which the direct effects of organizational justice on work-related burnout, client-related burnout, physical symptoms, and interpersonal strain were constrained to be zero, or rather, the effect of organizational justice on all outcomes would be fully mediated by ambivalent identification. This model showed an excellent fit to the data: $\chi^2_{(1069)} = 1361.166$, p = 0.000; CFI = 0.969; TLI = 0.967, RMSEA = 0.038, C.I. = 0.031 – 0.043; SRMR = 0.080. Furthermore, results from the chi-square test for difference testing between Model 1 and Model 2 were not significant ($\Delta\chi^2_{(4)} = 2.922$; p = 0.571). Therefore, since parsimony is desirable in structural equation modeling (Preacher, 2006), Model 2 was preferred because the two models showed an equal level of fit to the data. Results of indirect effects are reported in Table 3.

As can be seen in Figure 1, organizational justice exerted a negative significant effect of -0.41 (p < 0.001) on ambivalent identification, supporting Hypothesis 1. Ambivalent identification, in turn, exerted a positive significant effect on work-related burnout ($\beta = 0.43$, p < 0.001), client-related burnout ($\beta = 0.40$, p < 0.001), physical symptoms ($\beta = 0.31$, p < 0.001), and interpersonal strain ($\beta = 0.33$, p < 0.001), that is higher levels of ambivalent identification

TABLE 1 Confirmatory factor analysis results for the test of the measurement model.

Model	χ²	df	CFI	TLI	RMSEA (90% C.I.)	SRMR	Chi-square test for difference testing	df	p-Value
Hypothesized 6-factor model	1387.152*	1,065	0.966	0.964	0.039 (0.033-0.045)	0.079	-	-	-
Model combining OJI and AID (5 factors)	1853.632*	1,070	0.917	0.913	0.061 (0.057-0.066)	0.101	153.464	5	0.000
Model combining WRB, CRB, PS, IS (3 factors)	2249.037*	1,077	0.876	0.870	0.075 (0.071–0.079)	0.119	263.627	12	0.000
Model combining OJI, AID, WRB, CRB, PS, IS (1 factor)	6123.326*	1,080	0.467	0.443	0.155 (0.151–0.159)	0.244	1059.986	15	0.000

OJI, Organizational Justice Index; AID, Ambivalent Identification; WRB, Work-Related Burnout; CRB, Client-Related Burnout; PS, Physical Symptoms; IS, Interpersonal Strain at work. The chi-square statistic reflects the difference test between the hypothesized tested model and the respective nested models; *p < 0.001.

TABLE 2 Descriptive statistics reliabilities (Cronbach's alpha) and intercorrelations of all study variables.

	М	SD	Sk	Ku	α	1	2	3	4	5
1. Organizational justice index	3.70	1.03	-0.16	-0.82	0.92	_				
2. Ambivalent identification	2.61	0.73	-0.06	-0.39	0.83	-0.39**	-			
3. Work-related burnout	2.57	0.71	0.06	-0.46	0.82	-0.19**	0.33**	-		
4. Client-related burnout	2.26	0.80	0.28	-0.87	0.85	-0.14	0.36**	0.56**	-	
5. Physical symptoms inventory	1.72	0.57	1.37	2.58	0.84	-0.12	0.24**	0.43**	0.36**	-
6. Interpersonal strain at work	1.93	0.79	1.91	5.88	0.88	-0.05	0.27**	0.28**	0.39**	0.18*

M, mean; SD, standard deviation; Sk, skewness; Ku, kurtosis; α , Cronbach's alpha; *p < 0.05, **p < 0.01.

TABLE 3 Results of the indirect effects.

Total and specific indirect effects	β	SE	95% C.I.
$OJI \rightarrow AID \rightarrow Work$ -related burnout	-0.174*	0.048	[-0.278; -0.088]
OJI → AID → Client-related burnout	-0.161*	0.046	[-0.266; -0.073]
OJI → AID → Physical Symptoms Inventory	-0.128*	0.036	[-0.214; -0.068]
$OJI \rightarrow AID \rightarrow Interpersonal Strain at work$	-0.132*	0.038	[-0.214; -0.058]

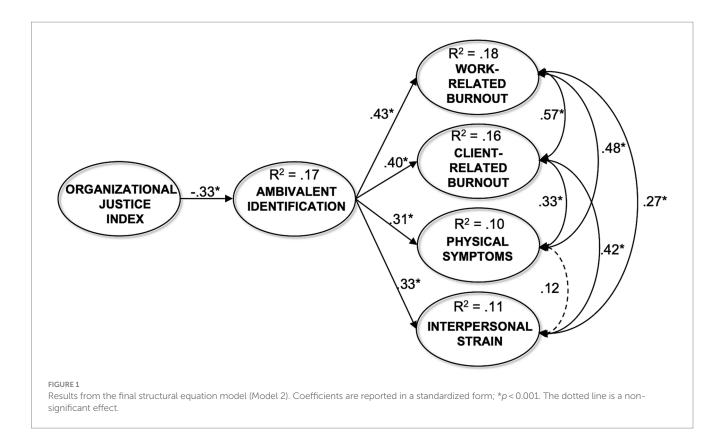
Total, total effects, and specific indirect effects are equal since it is a full mediation model. OJI, Organizational Justice Index, AID, Ambivalent Identification. SE, standard error. 95% confidence intervals (95% CIs) are based on a N=10,000 sample bootstrapping method; *p<0.001.

were associated to higher levels of stress on a moderate extent. Overall, the model explained the 17% of ambivalent identification variance and the 18% of work-related burnout variance, the 16% of client-related burnout variance, the 10% of physical symptoms variance, and the 11% of interpersonal strain variance. Results of the indirect specific effects of organizational justice to stress outcomes through the mediator are presented in Table 3.

4 Discussion

The present findings show that employees working in unfair organizational contexts can develop ambivalent identification toward their organizations, which, in turn, can lead to stress reactions in terms of work-related burnout, client-related burnout, physical symptoms, and interpersonal strain at work. These findings emphasize the significant role of ambivalent identification, demonstrating how

organizational (in)justice can lead to substantial impairments of psychological well-being. In line with previous findings, these results highlight the link between ambivalent identification and negative outcomes (Ciampa et al., 2019, 2021), supporting the notion that ambivalence represents a detrimental form of identification (Pratt, 2000). Overall, these results contribute to the research literature in two ways. First, although organizational justice was previously linked to employee stress and health, only a few studies explored the psychological mechanisms to explain this relationship (e.g., Judge and Colquitt, 2004), and none of them adopted a comprehensive theoretical framework that considers organizational contexts as social environments, emphasizing the context-dependent nature of groups and their function of social comparison (Turner et al., 1994; Hogg and Terry, 2000). The fact that ambivalent identification fully mediates the relationship between organizational justice and stress further confirms the importance of considering the role of social identities and their potential effects on employee health. Second, this represents the first



empirical study considering organizational justice as a predictor of ambivalent identification. Although Ashforth et al. (2014) suggested numerous possibilities for future research questions about organizational triggers of ambivalence, proposing a comprehensive conceptual framework for their relationships, this is the first empirical attempt in that direction.

Some limitations should also be taken into account. First, despite the novelty of adopting a social identity perspective along with the ambivalence model in examining the link between organizational justice and stress, the data were gathered from a single source via selfreport measures; this is a general potential limitation regarding the reliability of the measurements and their relationships. However, considering the nature of identification processes, it is recommended the use of self-report questionnaires for capturing individuals' selfdefinition in terms of their unique traits and features (Ciampa et al., 2019). Therefore, future studies could include other sources of information regarding at least stress and health outcomes. A second limitation of the study is related to the cross-sectional nature of the data collection since this research design does not provide evidence of causality. This limitation could be addressed by replicating the present study using, ideally, longitudinal and experimental designs. However, the social identity model of stress (Haslam, 2004) and the multilevel perspective of ambivalence by Ashforth et al. (2014) are both in line with the causal direction suggested in the present study, which is the first that considers organizational justice as a trigger of ambivalent identification. A third limitation of the study relates to the generalizability of the findings. Because a convenience sampling method was used to collect the data, it was not possible to obtain more detailed information on the response rate or to control for variables that may have affected the response rate. Accordingly, although the

participants were selected from among healthcare professionals, these findings cannot be strictly generalized to healthcare contexts without first extending the present results. Moreover, it is surprising that more than half of the participants in this study were doctors (55%), as the literature generally shows lower participation of doctors in research studies (see, e.g., Hummers-Pradier et al., 2008), mostly compared to nurses. Furthermore, given the size of the sample, these results indicate a trend that should be confirmed in future studies in the healthcare sector in order to generalize these findings, and these hypotheses could also be extended to other types of organizations.

Despite these limitations, this study contributes to future research questions: further research would benefit from the consideration of using different outcomes of stress and well-being, but also additional outcomes concerning cognitions and behaviors. Moreover, a different research design, such as a multilevel perspective, could explore the associations between ambivalence and organizational or group-level consequences, as proposed by Ashforth et al. (2014) model. Finally, future research should investigate organizational factors that determine, maintain, or facilitate ambivalent identification processes, broadening Kreiner and Ashforth's (2004) empirical research which primarily focused on individual predictors, like intrarole conflict and breach of psychological contract. A fruitful investigation could also explore whether different facets of organizational justice, such as distributive, procedural, interpersonal, and informational justice (see, e.g., Greenberg and Colquitt, 2013) are differently related to ambivalent identification. The present study also offers practical implications. First, it can inform about the importance of reducing potential feelings of ambivalence toward the organization by implementing actions to minimize employees' perceptions of unfair treatments within the organization. Organizations can allocate

resources to develop strong positive identifications, adopting the social identity approach suggested by Haslam (2004). For example, improving a better communication climate (Smidts et al., 2001) and promoting equitable job conditions, like reducing short-term contracts (Johnson and Ashforth, 2008), or adopting the 5R program (Haslam et al., 2017) to foster stronger organizational and team identities, can help leaders and practitioners to reduce ambivalence toward the organization and its negative effects.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

Ethics statement

All procedures performed in the study involving human participants were in accordance with the ethical standards of the institutional research committee (Department of Psychology, Sapienza University of Rome) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The participants provided their written informed consent to participate in this study.

Author contributions

VC: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

References

Antao, H. S., Sacadura-Leite, E., Correia, A. I., and Figueira, M. L. (2022). Burnout in hospital healthcare workers after the second COVID-19 wave: job tenure as a potential protective factor. *Front. Psychol.* 13:942727. doi: 10.3389/fpsyg.2022.942727

Ashforth, B. E., and Mael, F. (1989). Social identity theory and the organization. *Acad. Manag. Rev.* 14, 20–39. doi: 10.2307/258189

Ashforth, B. E., Rogers, K. M., Pratt, M. G., and Pradies, C. (2014). Ambivalence in organizations: a multilevel approach. *Organ. Sci.* 25, 1453–1478. doi: 10.1287/orsc.2014.0909

Asparouhov, T., and Muthén, B. (2006). Robust Chi Square difference testing with mean and variance adjusted test statistics (Mplus web notes: No. 10). Available at: http://statmodel.com/download/webnotes/webnote10.pdf

Asparouhov, T., and Muthén, B. (2010). Simple second-order chi-square correction (Mplus web notes no. 21). Available at: https://www.statmodel.com/download/WLSMV_new_chi21.pdf

Avanzi, L., Balducci, C., and Fraccaroli, F. (2013). Contributo alla validazione italiana del Copenhagen burnout inventory (CBI) [contribution to the Italian validation of the Copenhagen burnout inventory (CBI)]. *Psicologia della Salute* 2, 120–135. doi: 10.3280/PDS2013-002008

Beauducel, A., and Herzberg, P. Y. (2006). On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA. *Struct. Equ. Model.* 13, 186–203. doi: 10.1207/s15328007sem1302_2

Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: a qualitative analysis with recommendations. *Organ. Res. Methods* 8, 274–289. doi: 10.1177/1094428105278021

Becker, T. E., Atinc, G., Breaugh, J. A., Carlson, K. D., Edwards, J. R., and Spector, P. E. (2016). Statistical control in correlational studies: 10 essential recommendations for organizational researchers. *J. Organ. Behav.* 37, 157–167. doi: 10.1002/job.2053

Borgogni, L., Consiglio, C., Alessandri, G., and Schaufeli, W. B. (2012). "Don't throw the baby out with the bathwater!" interpersonal strain at work and burnout. *Eur. J. Work Organ. Psy.* 21, 875–898. doi: 10.1080/1359432X.2011.598653

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Boyas, J. F., Wind, L. H., and Ruiz, E. (2013). Organizational tenure among child welfare workers, burnout, stress, and intent to leave: does employment-based social capital make a difference? *Child. Youth Serv. Rev.* 35, 1657–1669. doi: 10.1016/j. childyouth.2013.07.008

Brown, T. A. (2006). Confirmatory factor analysis for applied research. Guilford Press. New York City

Cachón-Alonso, L., and Elovainio, M. (2022). Organizational justice and health: reviewing two decades of studies. *J. Theor. Soc. Psychol.* 2022, 1–13. doi: 10.1155/2022/3218883

Capone, V., and Petrillo, G. (2016). Teachers' perceptions of fairness, well-being and burnout: a contribution to the validation of the organizational justice index by Hoy and Tarter. *Int. J. Educ. Manag.* 30, 864–880. doi: 10.1108/IJEM-02-2015-0013

Ciampa, V. (2018). Different forms of (dis)affection with the organization: the positive influence of organizational identification on employees [doctoral dissertation, University of Trento]. University of Trento Research Repository. Available at: https://hdl.handle.net/11572/367595

Ciampa, V., Sirowatka, M., Schuh, S. C., Fraccaroli, F., and van Dick, R. (2021). Ambivalent identification as a moderator of the link between organizational identification and counterproductive work behaviors. *J. Bus. Ethics* 169, 119–134. doi: 10.1007/s10551-019-04262-0

Ciampa, V., Steffens, N. K., Schuh, S. C., Fraccaroli, F., and Van Dick, R. (2019). Identity and stress: an application of the expanded model of organisational identification in predicting strain at work. *Work Stress* 33, 351–365. doi: 10.1080/02678373.2018.1521884

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., and Ng, K. Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. *J. Appl. Psychol.* 86, 425–445. doi: 10.1037/0021-9010.86.3.425

Conlon, D. E., Meyer, C. J., and Nowakowski, J. M. (2005). "How does organizational justice affect performance, withdrawal, and counterproductive behavior?" in *Handbook*

of organizational justice. eds. J. Greenberg and J. A. Colquitt (Mahwah, NJ: Lawrence Erlbaum Associates Publishers), 301–327.

Cropanzano, R. S., and Ambrose, M. L. (2015). "Organizational justice: where we have been and where we are going" in *The Oxford handbook of justice in the workplace*. eds. R. S. Cropanzano and M. L. Ambrose (Washington, DC: American Psychological Association), 3–13.

Cropanzano, R., and Wright, T. A. (2011). "The impact of organizational justice on occupational health" in *Handbook of occupational health psychology*. eds. J. C. Quick and L. E. Tetrick. *2nd* ed (Washington, DC: American Psychological Association), 205–219.

Eib, C., Bernhard-Oettel, C., Magnusson Hanson, L. L., and Leineweber, C. (2018). Organizational justice and health: studying mental preoccupation with work and social support as mediators for lagged and reversed relationships. *J. Occup. Health Psychol.* 23, 553–567. doi: 10.1037/ocp0000115

Elovainio, M., Ferrie, J. E., Gimeno, D., De Vogli, R., Shipley, M., Brunner, E. J., et al. (2009). Organizational justice and sleeping problems: the Whitehall II study. *Psychosom. Med.* 71, 334–340. doi: 10.1097/PSY.0b013e3181960665

Elovainio, M., Kivimäki, M., and Vahtera, J. (2002). Organizational justice: evidence of a new psychosocial predictor of health. *Am. J. Public Health* 92, 105–108. doi: 10.2105/AIPH.92.1.105

Fischer, R. (2013). Belonging, status, or self-protection? Examining justice motives in a three-level cultural meta-analysis of organizational justice effects. *Cross-Cult. Res.* 47, 3–41. doi: 10.1177/1069397112470424

Fischer, R., Abubakar, A., and Nyaboke Arasa, J. (2014). Organizational justice and mental health: a multi-level test of justice interactions. *Int. J. Psychol.* 49, 108–114. doi: 10.1002/ijop.12005

Fox, S., Spector, P. E., and Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: some mediator and moderator tests for autonomy and emotions. *J. Vocat. Behav.* 59, 291–309. doi: 10.1006/jvbe.2001.1803

Greenberg, J. (1987). A taxonomy of organizational justice theories. Acad. Manag. Rev. 12, 9–22. doi: 10.2307/257990

Greenberg, J., and Colquitt, J. A. (Eds.). (2013). Handbook of organizational justice. Psychology Press. London

Haslam, S. A. (2004). Psychology in organizations. SAGE Publications. Thousand Oaks, CA.

Haslam, S. A., Steffens, N. K., Peters, K., Boyce, R. A., Mallett, C. J., and Fransen, K. (2017). A social identity approach to leadership development: the 5R program. *J. Pers. Psychol.* 16, 113–124. doi: 10.1027/1866-5888/a000176

Head, J., Kivimäki, M., Siegrist, J., Ferrie, J. E., Vahtera, J., Shipley, M. J., et al. (2007). Effort–reward imbalance and relational injustice at work predict sickness absence: the Whitehall II study. *J. Psychosom. Res.* 63, 433–440. doi: 10.1016/j. jpsychores.2007.06.021

Herr, R. M., Birmingham, W. C., van Harreveld, F., van Vianen, A. E., Fischer, J. E., and Bosch, J. A. (2022). The relationship between ambivalence towards supervisor's behavior and employee's mental health. *Sci. Rep.* 12:9555. doi: 10.1038/s41598-022-13533-2

Hogg, M. A., and Terry, D. I. (2000). Social identity and self-categorization processes in organizational contexts. *Acad. Manag. Rev.* 25, 121–140. doi: 10.2307/259266

Hoy, W. K., and Tarter, C. J. (2004). Organizational justice in schools: no justice without trust. *Int. J. Educ. Manag.* 18, 250–259. doi: 10.1108/09513540410538831

Hummers-Pradier, E., Scheidt-Nave, C., Martin, H., Heinemann, S., Kochen, M. M., and Himmel, W. (2008). Simply no time? Barriers to GPs' participation in primary health care research. *Family practice* 25, 105–112. doi: 10.1093/fampra/cmn015

Johnson, S. A., and Ashforth, B. E. (2008). Externalization of employment in a service environment: the role of organizational and customer identification. *J. Organ. Behav.* 29, 287–309. doi: 10.1002/job.477

 $\label{eq:JudgeTank} Judge, T.\ A., and\ Colquitt, J.\ A.\ (2004).\ Organizational justice and stress: the mediating role of work-family conflict. \textit{J. Appl. Psychol.} 89, 395–404.\ doi: 10.1037/0021-9010.89.3.395$

Kline, R. B. (2011). Principles and practice of structural equation modeling (3rd). New York: Guilford.

Kreiner, G. E., and Ashforth, B. E. (2004). Evidence toward an expanded model of organizational identification. *J. Organ. Behav.* 25, 1–27. doi: 10.1002/job.234

Kristensen, T. S., Borritz, M., Villadsen, E., and Christensen, K. (2005). The Copenhagen burnout inventory: a new tool for the assessment of burnout. *Work Stress* 19, 192–207. doi: 10.1080/02678370500297720

Lambert, E. G., Hogan, N. L., and Griffin, M. L. (2007). The impact of distributive and procedural justice on correctional staff job stress, job satisfaction, and organizational commitment. *J. Crim. Just.* 35, 644–656. doi: 10.1016/j.jcrimjus.2007.09.001

Leavitt, H. J. (1995). "Suppose we took groups seriously..." in *Psychological dimensions of organizational behavior*. ed. B. M. Staw. *2nd* ed (Englewood Cliffs, NJ: Prentice Hall)

Lee, J., Conder, S., and Gonzalez-Mule, E. (2022). A meta-analysis of the effects of work hours on resource depletion, resource acquisition, and strain. Acad.

Manage. Ann. Meet. Proceed. 2022:3784. doi: 10.5465/AMBPP.2022. 17415abstract

Liljegren, M., and Ekberg, K. (2009). The associations between perceived distributive, procedural, and interactional organizational justice, self-rated health and burnout. *Work* 33, 43–51. doi: 10.3233/WOR-2009-0842

MacKinnon, D. P. (2008). Introduction to statistical mediation analysis. Mahwah, NJ: Erlbaum.

Moon, K.-K. (2017). Fairness at the organizational level: examining the effect of organizational justice climate on collective turnover rates and organizational performance. *Public Pers. Manage.* 46, 118–143. doi: 10.1177/0091026017702610

Murtaza, G., Roques, O., Siegrist, J., and Talpur, Q. U. A. (2023). Unfairness and stress—an examination of two alternative models: organizational-justice and effort-reward imbalance. *Int. J. Public Adm.* 46, 602–612. doi: 10.1080/01900692.2021.2009854

Muthén, L. K., and Muthén, B. O. (1998-2017) Mplus User's Guide. 8th. Los Angeles,

Ndjaboulé, R., Brisson, C., and Vézina, M. (2012). Organisational justice and mental health: a systematic review of prospective studies. *Occup. Environ. Med.* 69, 694–700. doi: 10.1136/oemed-2011-100595

Pérez-Rodríguez, V., Topa, G., and Beléndez, M. (2019). Organizational justice and work stress: the mediating role of negative, but not positive, emotions. *Personal. Individ. Differ.* 151:109392. doi: 10.1016/j.paid.2019.04.047

Pratt, M. G. (2000). The good, the bad, and the ambivalent: managing identification among Amway distributors. Adm. Sci. Q. 45, 456–493. doi: 10.2307/2667106

Preacher, K. J. (2006). Quantifying parsimony in structural equation modeling. *Multivar. Behav. Res.* 41, 227–259. doi: 10.1207/s15327906mbr4103_1

Purvanova, R. K., and Muros, J. P. (2010). Gender differences in burnout: a meta-analysis. *J. Vocat. Behav.* 77, 168–185. doi: 10.1016/j.jvb.2010.04.006

Rothman, N. B., Pratt, M. G., Rees, L., and Vogus, T. J. (2017). Understanding the dual nature of ambivalence: why and when ambivalence leads to good and bad outcomes. *Acad. Manag. Ann.* 11, 33–72. doi: 10.5465/annals.2014.0066

Sara, J. D., Prasad, M., Eleid, M. F., Zhang, M., Widmer, R. J., and Lerman, A. (2018). Association between work-related stress and coronary heart disease: a review of prospective studies through the job strain, effort-reward balance, and organizational justice models. J. Am. Heart Assoc. 7:e008073. doi: 10.1161/JAHA.117.008073

Schroeder, S., Kelly, D., and Leighton, K. (2022). Influence of years of experience and age on hospital workforce compassion satisfaction, anxiety, depression, stress, and burnout during pandemic: implications for retention. *Psychol. Health Med.* 28, 1741–1754. doi: 10.1080/13548506.2022.2159988

Silva, M., and Caetano, A. (2016). Organizational justice across cultures: a systematic review of four decades of research and some directions for the future. *Soc. Justice Res* 29, 257–287. doi: 10.1007/s11211-016-0263-0

Smidts, A., Pruyn, A. T. H., and Van Riel, C. B. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Acad. Manag. J.* 44, 1051–1062. doi: 10.2307/3069448

Smith, K. K., and Berg, D. N. (1987). Paradoxes of group life: Understanding conflict, paralysis, and movement in group dynamics. Jossey-Bass. Hoboken, NJ.

Spector, P. E., and Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *J. Occup. Health Psychol.* 3, 356–367. doi: 10.1037/1076-8998.3.4.356

Steffens, N. K., Haslam, S. A., Schuh, S. C., Jetten, J., and van Dick, R. (2017). A metaanalytic review of social identification and health in organizational contexts. *Personal. Soc. Psychol. Rev.* 21, 303–335. doi: 10.1177/1088668316656701

Tajfel, H., Jaspars, J. M. F., and Fraser, C. (1984). "The social dimension in European social psychology" in *The social dimension: European developments in social psychology*. ed. H. Tajfel (Cambridge: Cambridge University Press), 1–8.

Tajfel, H., and Turner, J. C. (1979). "An integrative theory of intergroup conflict" in *The social psychology of intergroup relations*. eds. W. G. Austin and S. Worchel (Monterey, CA: Brooks/Cole), 33–47.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., and Wetherell, M. S. (1987). Rediscovering the social group: A self-categorization theory. Oxford: Blackwell.

Turner, J. C., Oakes, P. J., Haslam, S. A., and McGarty, C. (1994). Self and collective: cognition and social context. *Personal. Soc. Psychol. Bull.* 20, 454–463. doi: 10.1177/0146167294205002

Wu, B., Schuh, S. C., Wei, H., and Cai, Y. (2023). When positives and negatives collide: evidence for a systematic model of employees' strategies for coping with ambivalence. *J. Bus. Psychol.* 38, 473–491. doi: 10.1007/s10869-022-09818-y

Zhao, Q., and Zhou, W. (2021). Good or bad? The ambivalent leader-follower relationships. Front. Psychol. 12:690074. doi: 10.3389/fpsyg.2021.690074

Zhou, L., Tetgoum Kachie, A. D., Xu, X., Quansah, P. E., Epalle, T. M., Ampon-Wireko, S., et al. (2022). COVID-19: the effects of perceived organizational justice, job engagement, and perceived job alternatives on turnover intention among frontline nurses. *Front. Psychol.* 13:92027. doi: 10.3389/fpsyg.2022.920274