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You're not old as long as you're learning.

Ageism, burnout and development among Italian teachers

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Abstract

The purpose of the current study was to explore the buffering role of opportunities for professional development within the frame of the indirect relationship between workplace age discrimination (as a job demand) and job performance on a sample of $N = 325$ Italian teachers. Results of moderated mediation analysis indicated that emotional exhaustion mediates the relationship between workplace age discrimination and impaired job performance. Furthermore, the relationship between workplace age discrimination and performance through the mediation of emotional exhaustion became stronger at lower levels of professional development. Although professional development is recognised as a crucial job resource, the current study sheds light on its protective role among teachers dealing with discrimination caused by their age. Fostering of professional development could prevent teachers from feeling emotionally exhausted and, in turn, from the occurrence of impaired performance.

Keywords: Professional development, Teachers, Age discrimination, Burnout, Ageing, JD-R model

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Teaching is considered to be one of the most stressful professions, given the need to cope with an uncertain and emotionally demanding work environment and to execute tasks that involve high levels of mental flexibility, emotional management skills, sustained attention, and resilience (Roeser et al., 2013). Consequently, teachers exhibit higher levels of work-related stress symptoms when compared to human-service professions (Johnson et al., 2005). Among these ill-health conditions, teachers emerged as particularly exposed to the occurrence of burnout symptoms, with a prevalence rate fluctuating between 5-30% (Gil-Monte, Carlotto, & Gonçalves, 2011). The remarkable incidence of mental health symptoms and disorders among teachers has encouraged a growing interest in the investigation of the nomological network of teachers' burnout, especially in terms of causes and effects (Van Droogenbroeck & Spruyt, 2015). Research evidence indicates that the occurrence of burnout symptoms could act at different levels. For instance, they could deteriorate teachers' health and well-being, on the one hand, and their professional effectiveness and results, on the other side. At the individual level, teachers' burnout may translate into symptoms of depression (Shin, Noh, Jang, Park, & Lee, 2013), augmented blood pressure, and cardiovascular disease (Roeser et al.., 2013). As previously stated, activities in the classroom are not immune to the effect of teachers' burnout. Hence, burned-out teachers are unable to create productive learning environments for their students (Taylor & Millear, 2016) and report higher rates of absenteeism, turnover, impaired job performance (Swider & Zimmerman, 2010), lower levels of commitment and effectiveness (Brunsting, Sreckovic, & Lane, 2014), and poor job satisfaction (Domitrovich et al., 2016).

As interactions with students mainly characterise teaching activities, a critical effect of teachers' burnout entails the effectiveness of classroom activities. Burnout among teachers

could impair the quality of emotionally supportive teacher-student interactions (Jennings, 2015), jeopardise students' social and academic adjustment (Hoglund, Klingle, & Hosan, 2015), and generate a poorer classroom climate that negatively affects students' behaviour and performance (Wolf et al., 2015).

Overall, teachers experiencing burnout symptoms are less effective in organising and managing their classrooms, unable to provide their students with emotional support and effectively deal with their needs, and, consequently, are inefficient in guaranteeing students' learning and accomplishments. Emotional exhaustion represents the core dimension of burnout and the first occurring component of this syndrome trajectory that, in turn, leads to cynicism and a reduced level of self-efficacy resources (Maslach & Leiter, 2016). Accordingly, the current study focused on emotional exhaustion as a measure of teachers' burnout. Exhaustion results from depletion of one's physical and emotional resources and manifests itself with persistent feelings of tiredness, chronic fatigue, and a lack of energy for carrying out daily activities (Mäkikangas & Kinnunen, 2016).

In particular, the current study framed teachers' emotional exhaustion – as the critical feature of burnout – using a leading paradigm of this phenomenon, the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2017). As such, this research contributed to the literature on the JD-R model with an earlier attempt to include workplace age discrimination as a job demand.

Workplace age discrimination as a job demand

The JD-R model states that each profession is characterised by specific risk factors associated with job stress. These factors can be classified into two overarching categories: job demands and job resources. In line with previous burnout models, the JD-R perspective postulates that job demands and job resources are characterised by different properties and

effects on individual and job-related outcomes (e.g., Bakker, Demerouti, & Sanz-Vergel, 2014). On the one hand, job resources are functional to attain work goals and to tackle job demands; on the other hand, job demands represent those aspects of a job that imply physical, cognitive, or emotional costs and act as the initiator of the so-called health-impairment process. According to this process, persistent exposure to excessive job demands may trigger symptoms of emotional exhaustion that, in the long run, may result in detrimental individual and job-related outcomes (e.g., an impaired job performance).

Consistent with the health-impairment process, the enduring experience of workplace age discrimination (i.e., a job demand) could engender a condition of chronic emotional exhaustion and eventually translate into harmful outcomes for individuals and their work environment (i.e., impairing teachers' performance).

Workplace age discrimination, defined as the prejudicial treatment of an individual based on age, could significantly threaten victims' well-being (Wood, Braeken, & Niven, 2013). In academic literature, there is a significant consensus on the definition of workplace age discrimination as a job demand or stressor, which leads to adverse consequences (Hershcovis, 2011). Posthuma and Campion (2009) highlighted five stereotypes concerning older workers: they are assumed to be poor performers, less open to learning processes, more resistant to change, less prone to invest in organisation activities, and more expensive than their younger colleagues. On the other hand, there is compelling evidence from academic research that also younger workers experience age-based stereotypes in the workplace (Bertolino, Truxillo, & Fraccaroli, 2013). For instance, older workers are assumed to act more frequently in terms of organisational citizenship behaviours aimed at supporting the organisation compared to their younger colleagues (Truxillo, McCune, Bertolino, & Fraccaroli, 2012).

Furthermore, younger workers are perceived as unreliable and inexperienced compared to older colleagues (Bal, Reiss, Rudolph & Baltes, 2011). Overall, this empirical evidence

suggests that both age groups (i.e., younger and older employees) are susceptible to stereotype threat (Von Hippel, Kalokerinos, & Henry 2013). Nevertheless, age-related stereotypes are associated with detrimental outcomes only among older workers (Von Hippel, Kalokerinos, Haanterä, & Zacher, 2019). Stereotypes about the connection between youth and inexperience can be faded as young employees gain experience and competencies over time. In contrast, stereotypes associated with older employees are doomed to become stronger over time (Garstka, Schmitt, Branscombe, & Hummert, 2004). Consequently, older workers are likely to display lower levels of organisational commitment, job satisfaction, greater turnover intention, and a decreased degree of engagement toward their work.

In the school context, the association between workplace age discrimination and symptoms of emotional exhaustion could be explained through the lens of organisational justice. In other words, employees who experience inequality due to their age may be susceptible to a severe drain on their emotional resources and, consequently, may feel emotionally exhausted (Greenberg, 2006).

Based on the theoretical outlines described above, the following hypothesis was formulated:

Hypothesis 1. Emotional exhaustion mediates the relationship between workplace age discrimination and job performance.

Along with a set of risk factors for burnout, categorised as job demands, the JD-R model identified those variables that can hinder the occurrence of the health-impairment process. These are labeled job resources (Bakker & Demerouti, 2017). More specifically, resources may motivate employees through a twofold process. Primarily, they promote extrinsic motivation using their crucial role in dealing with job demands and reaching work goals. Furthermore, they are intrinsically motivating and able to foster employees' growth,

learning, and development through the fulfilment of the basic human needs for autonomy, competence, and relatedness (Van den Broeck, Vansteenkiste, De Witte, & lens, 2008). The current study focused on the role of professional development (as a job resource) to moderate the negative impact of workplace age discrimination among teachers. The JD-R model postulates that job resources could enable employees to tackle job demands and prevent an excessive amount of these demands from translating into emotional exhaustion, thus buffering the model’s health-impairment process (Lesener, Gusy, & Wolter, 2019). In particular, teachers' professional development comprises activities that buffer the negative consequences of workplace age discrimination. In particular, keeping up-to-date, experimenting, asking for feedback, and collaborating with colleagues to improve lessons and school development (Evers, Kreijns, Van der Heijden, & Gerrichhauzen, 2011).

This description of the protective role played by teachers’ professional development also agrees with the Conservation of Resources (COR) theory (Hobfoll, 2001), which postulates that human behaviour is primarily driven by the motivation of maintaining available resources and gaining new ones. Empirical results show that an individual’s goal-orientation varies over time, moving from the need for growth toward maintenance or loss prevention (Van der Heijden, Van Vuuren, Kooij, & De Lange, 2015). Earlier findings revealed that teachers provided with opportunities to gain new knowledge and skills experienced an enhanced ability to effectively manage and execute daily tasks (i.e., teacher efficacy), thus reducing their likelihood of experiencing burnout symptoms (Gaikhorst, Beishuizen, Zijlstra, & Volman, 2015). We argue that teachers’ professional development is a job resource that might play a crucial moderating role in the relationship between workplace age discrimination and emotional exhaustion. If employees - in this case, teachers - experience workplace age discrimination, they may perceive fewer opportunities for extrinsically rewarding job features, such as promotions and competition with younger

colleagues. Therefore, they may change their preference to more intrinsically rewarding job features, such as opportunities to flourish and develop in their work (Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011). Accordingly, earlier findings revealed that older teachers experience a considerable shift from extrinsic work motives, such as demonstrating one's worth as a teacher, toward more intrinsic work motives, such as perceiving greater effectiveness of one's teaching skills (Huberman, 1989).

Older employees perceive limited opportunities for career progression, such as promotions, due to age-related stereotyping, and face more considerable difficulties in finding new job opportunities (Van der Heijden, Boon, Van der Klink, & Meijs, 2009). Teachers, in particular, deal with a severe lack of alternatives in this regard (Philipp & Kunter, 2013). The current study, therefore, hypothesised that teachers might benefit from development opportunities if they suffer from workplace age discrimination. In other words, teachers who react and adapt to their environment by being actively engaged in professional development opportunities can better cope with the negative job demand of discrimination due to their age. Based on this rationale, we tested the following hypothesis:

Hypothesis 2. Teachers' professional development moderates the strength of the positive relationship between workplace age discrimination and emotional exhaustion.

In particular, low levels of teacher professional development are expected to strengthen the relationship between workplace age discrimination and emotional exhaustion. In contrast, high levels of professional development are expected to weaken the relationship between workplace age discrimination and emotional exhaustion.

The broader framework of the health-impairment process defined by the JD-R model includes negative, work-related consequences as an outcome of this process. The current study, therefore, included teachers' professional development as a moderator in the association between workplace age discrimination (i.e., job demand), emotional exhaustion

(i.e., the core dimension of burnout), and impaired job performance (i.e., the outcome of the health-impairment process). This rationale led to the formulation of the following hypothesis:

Hypothesis 3. The indirect effect of workplace age discrimination on job performance through emotional exhaustion is more robust at lower levels of the moderator: namely, teachers' professional development.

The hypothesised moderated mediation model is represented in Figure 1.

--- PLEASE INCLUDE FIGURE 1 ABOUT HERE ---

Method

Participants and procedure

The survey used for this study included a statement regarding personal data processing, following the Italian Privacy Law (Law Decree DL-196/2003). Furthermore, the current research obeyed the latest version of the Declaration of Helsinki (World Medical Association, 2008) regarding ethical standards for research. Data were collected from a sample of 384 Italian teachers. Due to missing data, the final sample comprised 325 teachers, of which 78.2% were women. The average age of the respondents was 43.31 years (*SD* = 9.76). Besides, 57% of participants worked in high schools, 16.7% worked in middle schools, 21% worked in elementary schools, while 5.3% worked in preschools. Moreover, almost half of them (49.8%) were involved in a training experience at the time of the study.

Measures

Workplace Age Discrimination. This construct was measured with the nine-item scale developed by Marchiondo and colleagues (2016), which was translated from English to Italian and then back-translated (Hambleton, 1994). A sample item was: "My contributions

are not valued as much due to my age". Participants rated the items on a 5-point Likert scale ranging from 1 (*never*) to 5 (*often*). The internal consistency of the scale yielded a Cronbach's alpha coefficient of α = .93. This result is consistent with previous results suggesting an internal consistency of α = .93 (Marchiondo et al., 2016).

Teacher Professional Development. This dimension was measured with the 21-item scale developed by Evers and colleagues (2016), which was translated from Dutch to Italian and then re-translated (Hambleton, 1994). The scale is composed of five sub-dimensions: a) keeping up-to-date, b) experimenting, c) reflecting and asking for feedback, d) collaborating with colleagues with the aim of improving lessons, and e) collaborating with colleagues to enhance school development. Items were scored on a 4-point Likert scale ranging from 1 (*never*) to 4 (*often*). In the present study, the reliability of the scale was α = .89. This coefficient is in accordance with the internal consistency score reported for the Teacher Professional Development scale by previous studies among teachers (Evers, Yamkovenko, & Van Amersfoort, 2017; Liu, Hallinger, & Feng, 2016).

Emotional Exhaustion. The central component of job burnout, which entails feelings of being overextended, was measured using the 5-item subscale of the MBI-Educators Survey (Maslach, Jackson, & Schwab, 1996; Simbula & Guglielmi, 2010). This measure reported a high reliability in previous studies based on samples of Italian studies, with values ranging from α = .88 to α = .92 (Guglielmi, Panari, Simbula, & Mazzetti, 2014; Simbula, Mazzetti, & Guglielmi, 2011). A sample item is: "I feel emotionally drained by my work". Participants were asked to provide an answer on a 7-point Likert scale ranging from 0 (*never*) to 6 (*every day*). The internal consistency of this scale was α = .87.

Job performance. This variable was measured through the following single item developed by Shimazu and colleagues (2010): "On a scale from 0 to 10, where 0 is the worst performance, and 10 is the top performance, how would you rate your overall job

performance during the past four weeks?". Answers were provided through an 11-point Likert scale ranging from 0 (*worst possible job performance a person could have on this job*) to 10 (*top job performance*).

Control variables. The participants' age and gender were used as control variables. Furthermore, respondents' participation in training activities at the time was included as a covariate.

Strategy of analysis

The study hypotheses were tested using the PROCESS macro - Version 3.0 (Hayes, 2017). Specifically, to test *Hypothesis 1* - which posits that emotional exhaustion mediates the relationship between workplace age discrimination and job performance - we used Model 4. Model 1 was employed in order to test *Hypothesis 2* - aimed at investigating whether teachers' professional development moderates the relationship between workplace age discrimination and emotional exhaustion. Furthermore, Model 7 was applied to test the moderated mediation model postulated in *Hypothesis 3*. Specifically, we investigated whether the interaction between workplace age discrimination (independent variable) and teachers' professional development (moderator) is related to emotional exhaustion (mediator), which is in turn related to job performance (outcome). We specified 10,000 bootstrap samples to obtain robust estimates of standard errors and confidence intervals, and we mean-centred the independent and moderator variables.

Moreover, gender, age, and involvement in training activities were included as control variables. Gender was measured as a covariate because previous studies suggest relevant gender differences in burnout symptoms. For instance, results from a noteworthy meta-analysis based on 183 studies revealed that women are slightly more emotionally exhausted than men (Purvanova & Muros, 2010). Further empirical evidence suggests that women's

higher scores on exhaustion could be explained through lower levels of global self-esteem (Herrmann, Koeppen, & Kessels, 2019).

In addition to older workers, young individuals could also experience workplace age discrimination (e.g., Marchiondo et al., 2016). In other words, age could have a non-linear relationship with workplace age discrimination. Hence, we included age as a control variable and modelled it as quadratic. Moreover, we asked participants whether they were involved in any training activities at the time of the data collection. We included this control variable because taking part in a training activity, which represents an initiative aimed to increase employees' skills and competencies, could be assumed to influence teachers' perception of professional development.

Results

Preliminary analyses

Mean values, standard deviations, inter-correlations, and Cronbach's alpha coefficients of all the study variables are reported in Table 1. The correlation coefficients between the independent variable, the moderator, the mediator, and the criterion variable were significant and in the expected direction, except for the relationship between workplace age discrimination and job performance (r = -.07; *ns*) and between workplace age discrimination and teachers' professional development (r = -.02; *ns*). On the other hand, this result may be due to multiple, unmeasured mediators acting at cross-purposes and invalidating each other (Hayes, 2017).

--- PLEASE INCLUDE TABLE 1 ABOUT HERE ---

Testing the model

As postulated by *Hypothesis 1*, the obtained results showed that emotional exhaustion mediated the relationship between workplace age discrimination and job performance (Indirect Effect: B = -.06, SE = .03; 95%CI = [-.13, -.01]). Furthermore, the moderation analysis showed that teachers' professional development weakened the positive relationship between workplace age discrimination and emotional exhaustion (ΔR^2 = .04; F = 13.26; p < .001), only at medium and high levels of teacher professional development herewith partially supporting *Hypothesis 2*. Concerning the third hypothesis, the obtained results indicated that the indirect effect of workplace age discrimination on job performance through emotional exhaustion depended on the level of teachers' professional development. Specifically, workplace age discrimination showed a stronger association with levels of emotional exhaustion for workers who perceived higher levels of teachers' professional development and, in turn, reported a greater job performance.

--- PLEASE INCLUDE TABLE 2 ABOUT HERE ---

The lower part of Table 2 reports the critical values for the conditional indirect effects. According to the obtained results, the indirect association between workplace age discrimination and job performance through emotional exhaustion was significant at higher and middle levels of teachers' development. Specifically, the effect was stronger for workers perceiving higher levels (B = -.09, 95%CI = [-.19; -.02]) and middle levels of teachers' professional development (B = .05, 95%CI = [-.12; -.01]) compared to their counterparts who perceived lower levels of teachers' professional development (B = -.01, 95%CI = [-.07; .04]). The indirect relationship between workplace age discrimination and job performance through emotional exhaustion was stronger at lower levels of teachers' professional development in the current sample. These results provided support to *Hypothesis 3*.

Figure 2 plots the interaction effect between workplace age discrimination and teachers' professional development on emotional exhaustion, showing that this positive relationship was stronger among teachers perceiving higher and middle opportunities of professional development.

--- PLEASE INCLUDE FIGURE 2 ABOUT HERE ---

Discussion

The current study was aimed at testing the health-impairment process included in the JD-R model with a specific focus on the protective role of teachers' professional development. In particular, the primary purpose was to provide the first empirical support for workplace age discrimination as a significant job demand in the education sector. The obtained results indicate that the average levels of perceived age discrimination were positively related to emotional exhaustion. In line with the health-impairment process of the JD-R model, our findings revealed a mediating role played by emotional exhaustion (i.e., the core dimension of burnout) in the relationship between workplace age discrimination and impaired job performance. Therefore, the current results contributed to the literature on the JD-R model by suggesting the opportunity to include workplace age discrimination as a primary stressor – or a job demand – able to trigger the health impairment process of burnout. Hence, discrimination because of age could significantly contribute to a poorly designed job, which exhausts teachers' mental and physical resources.

To be specific, the perceptions of age discrimination within schools produce a condition of chronic emotional exhaustion among teachers that, in turn, jeopardises their ability to perform adequately in classroom activities. On the other hand, the opportunity for

professional development could prevent exhaustion symptoms, as suggested by the regression coefficient values.

The present study concurs with empirical evidence suggesting that perceived age discrimination promotes depression symptoms, such as reduced self-esteem, and undermines workers’ health and optimal functioning (Allen, 2016; Garstka et al., 2004). In particular, earlier findings indicated that perceived age-related mistreatment within organisations also entails adverse work-related outcomes, such as lower levels of job satisfaction (Marchiondo, Gonzales, & Williams, 2017). These results concur with previous evidence suggesting that emotional exhaustion decreases teachers’ involvement in their job and compromises their supportive behaviour toward students (Jennings & Greenberg, 2009).

On the current sample of Italian teachers, workplace age discrimination was not negatively related to their job performance. In contrast, the performance was adversely affected by symptoms of exhaustion, thus suggesting that teachers experiencing a severe depletion of their emotional resources are unable to provide adequate performance in their job. Moreover, the current findings agree with the evidence that emotional exhaustion among teachers may reduce the ability to provide instructional support and limit commitment to student achievements (Shen et al., 2015).

Along with the main effects of demands (i.e., workplace age discrimination), the current study also corroborated the buffering hypothesis included in the JD-R model. The obtained findings reveal that teachers' professional development could mitigate the negative association between workplace age discrimination and exhaustion. As such, teachers that experience minimal opportunities for professional development could exhibit critical levels of emotional exhaustion, even when only facing a weak condition of age discrimination within their school. This evidence substantiated the hypothesis that organisational contexts that invest in professional development initiatives may boost relevant work-related outcomes,

such as job competence, motivation, and enthusiasm for carrying out work tasks (Park & Jacobs, 2011). This evidence enriches previous results revealing that low opportunities to acquire new knowledge and skills could flow into adverse attitudes towards one's job, such as low arousal and dissatisfaction attributed to an inadequately stimulating environment (Guglielmi, Simbula, Mazzetti, Tabanelli, & Bonfiglioli, 2013).

Moreover, professional development emerged as a critical job resource in decreasing the association between job demands and emotional exhaustion. In line with previous results, the chance to acquire new knowledge and competences could foster teachers' efficacy and mitigate their perception of a prejudicial treatment due to their age. In other words, an improved capability in performing daily tasks could prevent the severe depletion of emotional resources (i.e., emotional exhaustion) among teachers who experience age-related inequality within schools (Gaikhorst *et al.*, 2015).

Limitations and future research directions

All data were collected using self-reports only and, therefore, may be subject to common method bias. On the other hand, all measures employed in the present study reported satisfactory internal consistency indices; thus, the measurement bias is expected to be relatively small in this research (Spector, 2006). To further minimise this possible bias, we have included some procedures. First, the current study participants' anonymity was fully protected, and they were assured that there were no right or wrong answers. Consequently, study participants were urged to answer as frankly as possible. Our empirical model included an interaction effect; therefore, the likelihood that the established relationships were included in participants' cognitive maps is rather low (Chang, Van Witteloostuijn, & Eden, 2010).

Moreover, workplace age discrimination, emotional exhaustion, and the perceived capability to efficiently perform one's job are subjective by nature. Hence, using self-report

measures would the most reasonable way to explore these constructs, whereas a collection of objective measures would not be practical. An additional limitation concerns the cross-sectional nature of the study, which did not allow the direction of the causal relationship between the investigated variables to be determined. For instance, it may be argued that teachers who are dissatisfied with their performance may attribute this decline to perceived age discrimination.

Thus, future research in this field should rely on multi-wave designs in order to explore the stability and genuine direction of relationships under investigation. As a further limitation, this study examined a particular – yet relevant – job resource that was able to buffer the association between workplace age discrimination and teachers' emotional exhaustion. Future studies should further explore the knowledge of protective factors within the school context to better understand the process of teachers' psychological disengagement over time. Additionally, the current study was affected by limited opportunities for ascertaining the reliability of the single-item measure of performance. On the other hand, this renowned measure of performance is characterised by plain comprehensibility and transparency of the construct under investigation (Postmes, Haslam, & Jans, 2013). Future research should foster the present findings by replicating the current model using a multi-item measure of job performance.

Practical implications

The current study underlined how aging might prove strenuous for teachers, especially when combined with a substantial prejudice concerning one's weakening ability and reduced potential contribution. Teachers experiencing discrimination due to their age tend to feel more emotionally exhausted and, consequently, their performance declines. Accordingly, schools should provide suitable instruments aimed at dealing with this form of

prejudice. A possible approach aimed at decreasing the occurrence of workplace age discrimination threats is to develop work teams that overcome age demarcations. To be specific, intergenerational groups' presence is still limited, although it could lead to the development of learning processes among members. As a result, younger employees may be socialised to organisational (i.e., school) culture by their older colleagues. In turn, they could learn much about the use of new instruments, such as ICT (Findsen, 2015). School principals could create work teams that mix younger and older teachers to enhance reciprocity and useful innovation among teachers, using one-to-one mentoring schemes (Zachery, 2000). To systematically adjust teams' composition, schools' principals can also halt the negative consequences of discriminatory stereotypes about older teachers through structured discussions that – explicitly and implicitly – tackle this form of stigmatisation (Truxillo, Cadiz, & Hammer, 2015). Iweins and colleagues (2013) suggest reducing harmful stereotypes against older colleagues and ageism in the workplace could benefit from interventions based on Allport's (1954) contact hypothesis. One of the most effective strategies for improving the quality of contact with an outgroup and preventing group biases is based on proposing actual face-to-face interaction between colleagues of distinct groups. This approach may foster a diversity perspective and tackle harmful stereotypes against individuals perceived as outgroup members, such as older employees (Yzerbyt, & Demoulin, 2010). Based on this related theoretical and empirical literature, workplace age discrimination could be reduced through intervention strategies encouraging an organisational multi-age perspective.

Additionally, opportunities for developing new competencies could protect teachers’ well-being in different ways: on the one hand, professional development could prevent symptoms of emotional exhaustion; on the other, it could enhance levels of teachers'

motivation, self-efficacy, and commitment (Simbula et al., 2011; Vignoli, Guglielmi, & Balduzzi, 2018).

Given the relevance of professional development among older teachers, further practical implications concern identifying training opportunities that meet these requirements, and that could meet older teachers' needs in particular. The implementation of training activities that are specifically focused on social and emotional skills could represent a beneficial strategy. This type of intervention is growing increasingly popular due to its effectiveness (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). It has been shown to moderate burnout levels more efficiently than alternatives that have traditionally been applied for this purpose (Iancu, Rusu, Măroiu, Păcurar, & Maricuțoiu, 2018).

As suggested by Tsouloupas and colleagues (2010), emotional exhaustion could be prevented through workshops focused on developing skills aimed at regulating emotions and tackling emotional demands in the workplace. Emotion regulation workshops may play a twofold role in combatting exhaustion levels in older teachers. On the one hand, teachers' emotional stability may lessen difficulties in regulating emotions that are associated with exhaustion; on the other hand, this kind of training activity may enhance teachers’ ability to cope with stressful situations efficiently may arise during classroom activities.

A further kind of training that may be suitable for teachers would involve strengthening their ability to promote emotional awareness and communication, self-regulation, social problem solving, and relationship management skills to students (Berg, Bradshaw, Jo, & Ialongo, 2016). The attainment of these skills would translate into significant changes in students’ behaviour that, in turn, would have indirect positive repercussions on the prevention of emotional exhaustion among teachers.

Conclusions

This study investigated the buffering role of teachers' professional development in the health-impairment process postulated by the JD-R model. As expected, emotional exhaustion mediated the association between workplace age discrimination and job performance. Furthermore, professional development among teachers mitigated this association. The role of professional development was supported by evidence that fewer learning opportunities are associated with higher levels of emotional exhaustion. However, this evidence is within the framework of school contexts weakly characterised by workplace age discrimination. From a theoretical point of view, the current study further validates the JD-R model in the context of teachers' professional development and supports workplace age discrimination as a job demand. From a practical perspective, school principals who are willing to create a healthy school environment and promote the quality of learning processes among their students should take steps to prevent age discrimination issues while also investing in their teachers' professional development.

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1 **Table 1.** Means, standard deviations, and inter-correlations between study variables

	M	*SD*	AVE	1	2	3	4	5	6
1. Gender (*0 = women; 1= men*)	-	-	-	-					
2. Age	43.31	9.76	-	-.02	-				
3. Current Training (*0= no; 1= yes*)	-	-	-	-.17**	-.13*	-			
4. Workplace Age Discrimination	1.63	.78	.62	.02	-.33**	-.05	*(.93)*		
5. Teachers' Professional Development	2.64	.51	.30	-.14**	.05	.28**	-.02	*(.89)*	
6. Emotional Exhaustion	12.16	7.33	.59	-.09	.04	-.06	.18**	-.13*	*(.87)*
7. Job Performance	7.17	1.46	-	-.01	.10	.10	-.07	.36**	-.16**

2 **Notes:** $N = 325$. Cronbach's α in brackets along the diagonal. AVE = Average Variance Extracted. $^{*}p$
3 $< .05$; $^{**}p < .01$

Table 2. Results of the moderated mediation model for job performance

Variable	Emotional Exhaustion			Job Performance		
	B	*SE*	*p*	B	*SE*	*p*
Gender	-2.20*	.96	.020	-.03	.20	*ns*
Age	.00	.00	.050	.00	.00	*ns*
Current Training	-.45	.83	*ns*	.26	.16	*ns*
Workplace Age Discrimination	1.76**	.53	< .001	-.06	.11	*ns*
Teachers' Professional Development	-2.24**	.80	.010			
Workplace Age Discrimination X Teachers' Professional Development	2.82**	.77	< .001			
Emotional Exhaustion				-.03**	.01	.010
Model Summary	$R^2 = .11^{**}$			$R^2 = .04^{*}$		

Conditional indirect effect of workplace age discrimination (X) on job performance (Y) through emotional exhaustion (M) at values of teachers' professional development (W)

	Effect	*Boot SE*	*Boot 95% CI*
LOW Teachers' Professional Development	-.01	.03	-.07; .04
MEDIUM Teachers' Professional Development	-.05	.03	-.12; -.01
HIGH Teachers' Professional Development	-.09	.05	-.19; -.02

Notes: $N = 325$; $^{*}p < .05$; $^{**}p < .01$

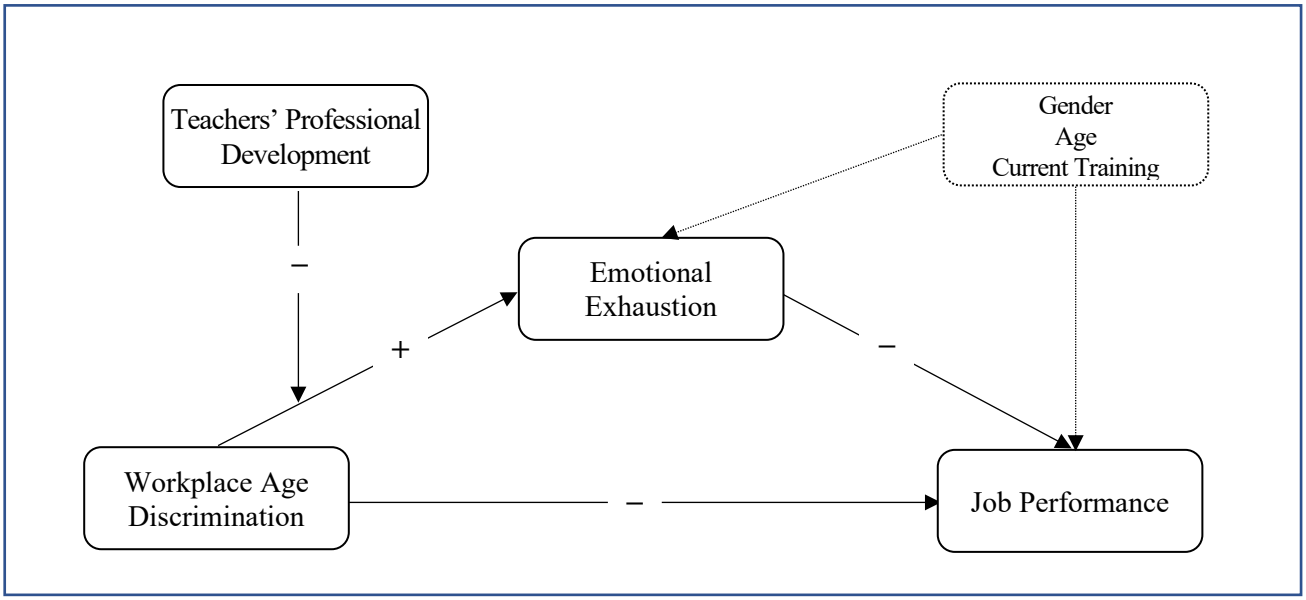

Figure 1. The hypothesized moderated mediation model
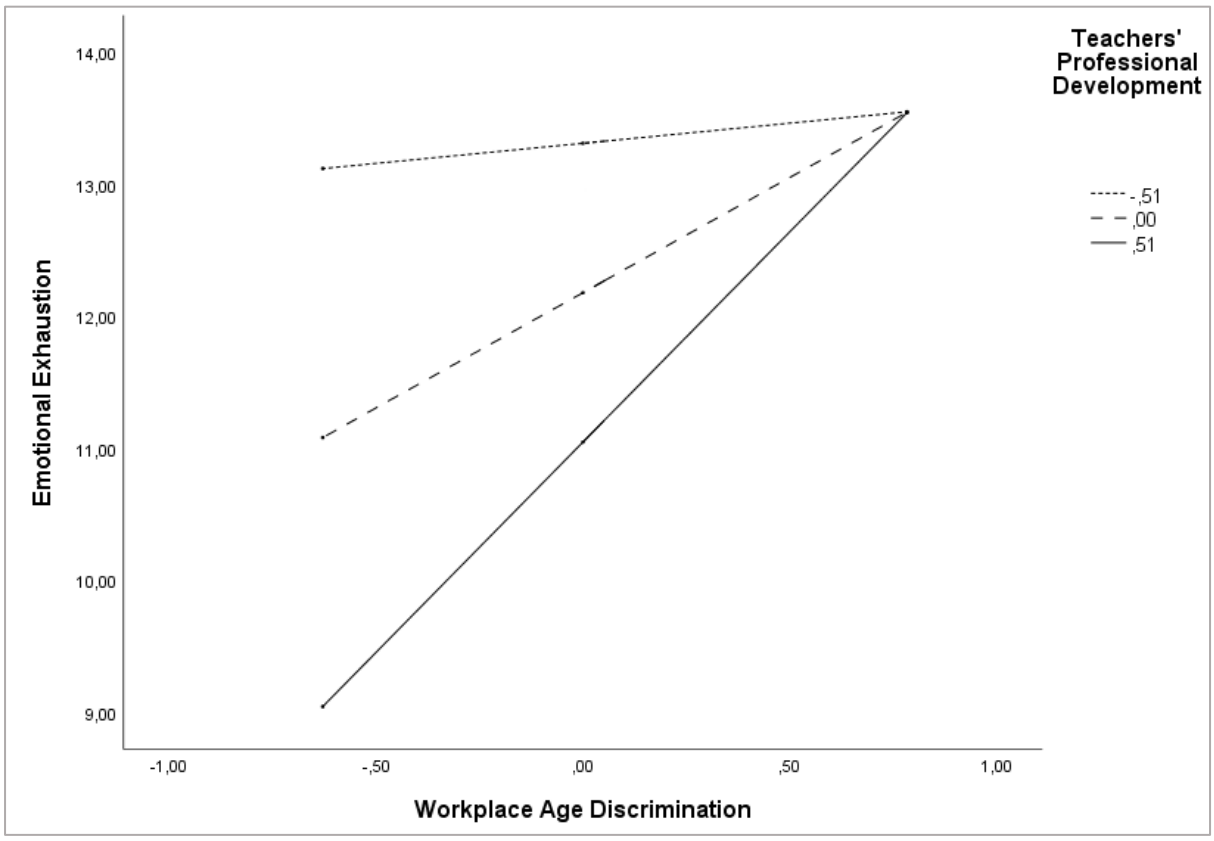
Figure 2. Workplace age discrimination with teachers' professional development interaction effect for emotional exhaustion