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ITALIAN VERSION OF THE VICTIM INCIVILITY SCALE: FIRST PSYCHOMETRIC EVALUATIONS IN A SAMPLE OF EMERGENCY WORKERS

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Although the impact of outsider incivility on customer-contact employees' well-being has been well-documented, victim incivility toward emergency workers is still understudied. This is partly due to the lack of context-specific incivility instruments. Thus, this study aimed to provide a preliminary Italian version of the Victim Incivility Scale (Sliter & Boyd, 2015). To this end, the factor structure of the Italian scale was checked through exploratory (EFA) and confirmatory (CFA) factor analyses involving 304 firefighters and emergency health workers. The EFA revealed a single-factor structure, which was confirmed by the CFA. Partial scalar invariance between occupations was found. Victim incivility was positively associated with burnout and psycho-physical malaise and negatively related to job satisfaction. Women and less experienced workers reported greater victim incivility. The Italian version of the Victim Incivility Scale is a context-specific reliable instrument to evaluate emergency workers' perceptions of victim incivility readily usable by both researchers and practitioners.

Keywords: Italian scale adaptation; Victim incivility; Firefighters; Emergency health workers; Measurement invariance.

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Workplace incivility has been defined as the current "silent epidemic" (Texas A&M University, 2017) because it has been spreading through organizations like a wildfire. It refers to a "low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (Andersson & Pearson, 1999, p. 457). Uncivil behaviors, which may include both rude gestures (e.g., giving dirty looks) and verbal communication (e.g., vulgar language), are typically rude and discourteous, exhibiting a lack of regard for others. While these behaviors violate workplace norms for mutual respect, they are differentiated from other forms of interpersonal mistreatment, such as workplace aggression or sexual aggression (Baron, 2004), due to their low intensity. Workplace incivility does not include sexually or physically aggressive behaviors. Additionally, it differs from other expressions of interpersonal mistreatment, such as mobbing (Leymann, 1996) and verbal abuse (Grandey et al., 2007), due to the ambiguity of intent. It is unclear to the target, bystanders, or the instigator whether the uncivil act carries a malicious intent to hurt the target (Andersson & Pearson, 1999). Unlike perpetrators of workplace aggression, instigators of incivility may have the intent to harm the target, or they may not even be aware of such an intention (Andersson & Pearson, 1999). On one hand, this means that while some expressions of workplace incivility (e.g., those without a clear intent to hurt, but in which the intent perceived by the target is not transparent) lie outside the realm of workplace aggression, other forms of workplace incivility (e.g., those with the intention to hurt, but in which the intention perceived by the target is ambiguous) lie inside the realm of workplace aggression

TPM Vol. 29, No. 3, September 2022 – 359-375 – doi:10.4473/TPM29.3.6 – © 2022 Cises
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(Andersson & Pearson, 1999). On the other hand, this leaves wide room for the target's subjective interpretation of the perpetrator's action, such that the same situation might be perceived differently by diverse employees. However, even though individual perceptions may differ, workplace incivility is a frequently experienced phenomenon that may harmfully affect employees' well-being and work functioning given that its effects can compound over time (Porath & Pearson, 2013). For instance, among employees who have been treated uncivilly: 48% intentionally decreased their productivity, and 38% purposely lowered the quality of their work, so that incivility can cost organizations up to $14,000 per employee annually (Pearson, 2010; Porath & Pearson, 2009). Also, when incivility spills into customer view, it leads clients and customers to make negative generalizations about the company and then to take their business elsewhere (Porath et al., 2010). Moreover, incivility may "spiral" out of control and act as a "gateway drug" (U.S. Equal Employment Opportunity Commission, 2016) to more aggressive workplace behaviors (Andersson & Pearson, 1999). Over the last decades, because even more employees are employed in the service sector, scholars have acknowledged that clients are a unique and significant source of uncivil interactions at work (e.g., Sliter et al., 2012).

Incivility from Clients

Client incivility is like workplace incivility except that the incivility is perpetrated by someone who is receiving a service from the company. Instances comprise episodes where clients act impatiently, "forget" to engage in social niceties, and question the competence of a worker. Client-employee exchanges characteristically represent episodic interactions which, by their nature, are likely to focus on the satisfaction of short-term needs and then implicate the potential for more misleading behaviors (Skarlicki et al., 2008), so that client incivility often represents an everyday occurrence (Harris & Ogbonna, 2006). As a result, an accumulation of uncivil incidents may severely affect service providers' well-being, leading to emotional dissonance, psycho-physical malaise, strain, and burnout (Sommovigo, Setti, & Argentero, 2019; Sommovigo, Setti, Argentero, O'Shea, 2019). Moreover, client incivility may produce negative job-related outcomes, including lower quantity and quality of the service provided (Mikaelian & Stanley, 2016), job dissatisfaction (Cortina et al., 2001), withdrawal behaviors (Sliter et al., 2012), and lower extra-role customer service behaviors (Bani-Melhem, 2020). Moreover, employees may negatively respond to customer incivility by engaging in counterproductive work behaviors (Bani-Melhem et al., 2020), and uncivil reactions toward not only the instigating customer and client (Torres et al., 2017) but also customers and clients in general (Sommovigo et al., 2020). Most studies have analyzed the impact of outsider incivility on professional groups traditionally considered at high risk of receiving incivility, such as call center agents (Sliter et al., 2011), bank tellers (Sliter et al., 2010), nurses (Guidroz et al., 2010), retail, restaurant and hotel frontline employees (Torres et al., 2017). However, another under-studied population of workers employed in "nontraditional" service jobs might also be at high risk of receiving outsider incivility: emergency workers.

Victim Incivility toward Emergency Workers

Emergency workers represent a high-risk occupational group because their job characteristics (e.g., frequent contact with the public, providing others with care, handling frustrated/intoxicated individuals, and working night shifts) may potentially increase their risk for outsider incivility. Differently from other

"traditional" service providers, emergency workers have to complete their jobs in stressful circumstances regardless of social niceties. This absence of "service with a smile," in addition to simply working with "victims" of tragedies who are under high-stress levels, makes emergency workers particularly vulnerable to victim incivility. For instance, it has been estimated that there are nearly 700,000 assaults on paramedics per year (Munding, 2006), and the prevalence rates of verbal aggression from patients/visitors toward healthcare professionals working in emergency rooms have been estimated between 65% and 99% in 12 months (Albashtawy, 2013; Esmaeilpour et al., 2011; Vezyridis et al., 2015). Sliter (2012) was the first researcher to use the term "victim incivility" to indicate a "low-intensity deviant behavior, with an ambiguous intent to harm the target, perpetrated by a victim — or the family and friends of a victim — of a stressful situation in which emergency services have been dispatched" (p. 9). Examples of victim incivility include behaviors lacking mutual respect and appreciation, a victim questioning an emergency worker's competence, and the family members of a victim raising their voice at an emergency worker. Victim incivility is like client incivility in that the instigator is someone external to the firm, someone that the worker is trying to serve. What makes victim incivility unique is that it is perpetrated by a victim of an emergency (e.g., car accidents, fires, medical emergencies) while the worker is trying to help. On one hand, the emergency may be stressful to the emergency workers themselves, potentially making them particularly susceptible to perceive victim incivility. On the other hand, given that emergency workers are sometimes provided with appropriate training on how to manage difficult individuals, they might not interpret examples of incivility as "uncivil" as frequently as professionals employed in diverse service jobs do. Nevertheless, the only study analyzing the effects of victim incivility on firefighters indicated that victim incivility was not only a common occurrence, but it predicted burnout, physical symptoms, and absenteeism (Sliter & Boyd, 2015), suggesting that this phenomenon might be costly to both workers and organizations. More research is available on the negative effects of outsider incivility/aggression on healthcare professionals working in emergency departments (EDs). Some studies analyzing outsider verbal aggression toward nurses working in EDs indicated that over half of the nurses never felt safe at work and that the staffing pattern, physical facilities, and long waiting times to be treated were inappropriate to prevent aggression in EDs (Hills et al., 2021; Pinar & Ucmak, 2011). Female, younger, and relatively inexperienced professionals were at increased risk for verbal abuse (Abou-ElWafa et al., 2015; Esmaeilpour et al., 2011; Vezyridis et al., 2015). Hence, outsider aggression in EDs is considered part of the job, representing an increasing phenomenon in terms of severity and magnitude (Pich et al., 2010). Furthermore, a limited body of research identified victim incivility as the most frequent form of aggression experienced by emergency health workers (Touzet et al., 2014, 2019), suggesting the importance of studying its occurrence in this context.

Although several organizational customer incivility scales have been specifically designed for customer service contexts (e.g., Customer Incivility Scale by Wilson & Holmvall, 2013) and some measures have been targeted for specific healthcare professional groups (e.g., Nursing Incivility Scale by Guidroz et al., 2010), to date only one scale, developed by Sliter and Boyd (2015), is available for measuring incivility in an emergency. Because the scale was validated on a single occupation (i.e., firefighters), the authors called for future research on a more heterogeneous population of emergency workers. Hence, the current study aimed to provide the first Italian version of the Victim Incivility Scale validated in a sample of firefighters and emergency health workers to facilitate practitioners in maintaining emergency workers' well-being.

Aims and Hypotheses

To the best of our knowledge, an Italian version of the Victim Incivility Scale is still missing. To fill this gap, the main aim of the current study was to investigate the factor structure of the Victim Incivility

Scale in the Italian context (through exploratory and confirmatory factor analyses) and, eventually, to remove poorly functioning items to offer a first Italian version of this scale.

To this end, we tested the Victim Incivility Scale model of measurement not only with firefighters but also with emergency health workers. Despite some differences, both emergency workers may receive incivility from the persons they are trying to help in emergencies. Thus, a further objective was to examine whether the factor structure of the Victim Incivility Scale would be invariant across occupations. Additionally, we analyzed the nomological validity of the scale and whether there were differences in victim incivility perceptions across groups differing in gender, occupation, age, and years of experience.

We expect that the Italian version of the Victim Incivility Scale will display a single-factor model of measurement. Furthermore, we hypothesize that victim incivility will be positively associated with burnout and psycho-physical malaise, while it will be negatively related to job satisfaction. We also expect that female, younger, and less experienced workers will report experiencing greater victim incivility and that there will be statistically significant differences across occupations.

Method

Participants and Procedure

Our research population consists of firefighters from two firehouses and emergency health workers from six emergency rooms in a Northern Italian Region. This study was conducted between March 2019 and November 2019 in accordance with the ethical standards laid down by the Italian National Psychological Association. To recruit firefighters, two weeks prior to the research, a notice was circulated in two firehouses alerting firefighters that they would be contacted for a study that was approved by the Chief of the fire department. In each firehouse, a master's student in psychology personally informed firefighters about the purposes of the study and administrated 180 questionnaires. To recruit emergency health workers, after obtaining the authorization to conduct the study by the Medical Direction, in each emergency room, the research was presented by a coordinator and a researcher during shift changes. The Medical Direction administrated a total of 285 surveys to all emergency health workers employed in emergency rooms from six hospitals. After being reassured of the anonymity of their responses, participants provided their written informed consent and completed paper-pencil questionnaires. It took approximately 20 minutes to fill in the questionnaire. Participants were instructed to place the completed surveys in dedicated cardboard boxes. In total, 111 firefighters (response rate: 61.67%) and 200 emergency health workers (response rate: 70.17%) completed the survey. We excluded two firefighters and five emergency health workers because they did not complete at least 60% of the survey, which reduced the sample size from 311 to 304. Six cases were removed because they were multivariate outliers (as described below), leaving a total sample of 298 respondents. The average percentage of missing values ranged from 1% to 1.80%. We replaced each of the missing values with the mean of the observed values for that variable.

Most participants were male (64.6%), emergency health workers (64.1%) with an average age of 48.24 years (SD = 7.94, min = 25, max = 65) and an average overall job tenure of 27.49 years (SD=10.01, min = 1, max = 45). Participants were randomly divided into two groups to perform exploratory factor analysis (EFA group, n = 148) and confirmatory factor analysis (CFA group, n = 150). In the EFA group, most respondents were male (62.4%), emergency health workers (63.5%) with an average age of 48.41 years (SD = 8.24, min = 25, max = 65) and an average overall job tenure of 27.65 years (SD = 10.09, min = 3, max = 45). In the CFA group, most participants were male (64.7%), emergency health workers (66.9%) with an average age of 48.07 years (SD = 7.63, min = 26, max = 65) and an average overall job tenure of 27.31 years

(*SD* = 9.96, min = 1, max = 41). Similar average victim incivility scores were reported by the two groups (*M* = 2.05, *SD* = 0.63; *M* = 2.02, *SD* = 0.70, for the EFA and CFA groups, respectively).

Measurements

The *Victim Incivility Scale* (Sliter & Boyd, 2015) is a 12-item scale that was originally developed to evaluate firefighters' perceptions of incivility from victims (e.g., "Victims said rude things"). Responses are obtained on a 5-point Likert scale ranging from 1 (*never*) to 5 (*extremely often*), where greater scores indicate greater experienced victim incivility. The scale score is computed as a mean of the items, indicating how frequently each respondent referred to experiencing victim incivility in the previous month.

The *Maslach Burnout Inventory-General Survey* (MBI; Schaufeli et al., 1996; Borgogni et al., 2005) was used to assess emotional exhaustion and cynicism symptoms through two 5-item subscales. Participants reported how frequently they experienced emotional exhaustion (e.g., "I feel used up at the end of the work-day"), and cynicism (e.g., "I have become less enthusiastic about my work"), on a 7-point Likert scale (0 = *never*, 6 = *always*), where greater scores indicate greater burnout symptoms. Although the complete version of the MBI also includes a third dimension called reduced personal accomplishment, in line with several authors (e.g., Bakker et al., 2004; Sommovigo, Setti, & Argentero, 2019; Sommovigo et al., 2020), we decided to not include this dimension because it reflects a result of burnout rather than a separate symptom of the condition. The total score is calculated by averaging all item scores.

Psycho-somatic malaise was measured using the 12-item General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988; Fraccaroli & Schadee, 1993). This well-established instrument includes three subscales: social dysfunction which refers to difficulties in social performance (six items, e.g., "Have you recently felt you couldn't overcome your difficulties?"); general dysphoria which regards the presence of psychosomatic symptoms (four items, e.g., "Have you recently been confident in yourself?"); loss of confidence that refers to decrease in self-esteem levels (two items, e.g., "Have you recently been losing confidence in yourself?"). Responses are based on a 4-point Likert scale that evaluates if and how the individual's mental state differs from his/her usual state (from 0 = *better than usual/more so than usual* to 3 = *much less than usual*, for positively worded items; and from 0 = *not at all* to 3 = *much more than usual*, for negatively worded items), where a greater score means a greater psycho-physical malaise. We chose to utilize the total score because the GHQ-12 was initially designed as a single-factor instrument (Goldberg & Williams, 1988), and several scholars support the one-dimensionality use of this scale (e.g., Setti et al., 2018).

Job satisfaction was evaluated by using a single item assessing overall satisfaction levels ("How satisfied have you been with your work?"; Giorgi et al., 2015). Responses were rated on a 10-point Likert scale ranging from 1 (*no satisfaction*) to 10 (*complete satisfaction*), in which greater scores indicate greater job satisfaction.

Translation

Dr. Sliter, the original designer of the Victim Incivility Scale, was contacted and permission was granted to develop an Italian version. The translation was done in accordance with the standard guidelines for translating questionnaires (Sousa & Rojjanasrirat, 2011). One native Italian-speaking researcher translated the items. Next, the forward translation was revised by a bilingual expert panel that detected appropriate alternatives to inadequate expressions. An independent translator, who did not participate in the initial

translation, translated all items back into English. Finally, both Italian- and English-speaking natives compared the back-translated version with the original version of the scale, and further amends were made.

Statistical Analyses

Descriptive statistics of items were evaluated to confirm the data normality and robustness of further analyses using SPSS 23 (George & Mallery, 2016). Multivariate outliers were detected utilizing $p < .001$ criterion for Mahalanobis distance and statistical assumptions (Kaiser-Meyer-Olkin measure and Bartlett test groups) were verified. Next, using Mplus 7 (Muthén & Muthén, 2012), a parallel analysis was performed to identify the number of factors to retain. This technique represents the most accurate approach because it avoids over-extracting factors (Henson & Roberts, 2006). Given that the parallel analysis indicated that only one observed eigenvalue was greater than the average of the expected eigenvalues, a single-factor EFA on the EFA group (n = 148) was conducted using the maximum likelihood (ML) method. Eigenvalues, communalities, and factor loadings for each item, as well as item-total correlation coefficients and item discrimination ability, were checked to remove the worst items. A factor structure was identified in which all items loaded onto their primary factor above .40 (Howard, 2016) and had a communality higher than .20, showing an item-total correlation higher than .30 (Balboni et al., 2018). The corresponding principal component analysis was performed in SPSS to verify whether the retained items explained a sufficient variance. As measures of reliability, Cronbach's alpha, McDonald's (1999) omega, composite reliability (CR), and average variance extracted (AVE) were calculated in SPSS and JASP (JASP Team, 2017), respectively. To check the percentage of variance explained by the scale, a confirmatory factor analysis (CFA) was conducted on the CFA group (n = 150) using the ML method in Mplus to validate the factor structure that emerged from the prior EFA analysis. The model goodness-of-fit was verified considering the following indices: comparative fit index (CFI), Tucker-Lewis index (TLI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). Also, to examine measurement invariance across occupations, four multigroup confirmatory factor analyses (MGCFAs) using the ML method were tested in Mplus. To identify statistical differences between models, the χ^2 of the baseline model was subtracted from the χ^2 value of the nested comparison model, computing the Satorra-Bentler scaled χ^2 (Satorra & Bentler, 2010). We also utilized the difference in CFIs between the freely estimated model and the constrained model to test the between-group invariance of CFA models, supporting invariance when this value was .01 or less (Cheung & Rensvold, 2002). To prove the nomological validity of the scale, the correlations (Pearsons' r) between victim incivility burnout, psychophysical malaise, and job satisfaction were examined in the total sample (N = 298). According to Cohen (1992), the size of correlation effects was considered low when the value of Pearson's r correlation varied around |.1|, medium when r varied around |.3|, and large when r was greater than |.5|. Finally, independent sample t-test analyses and analyses of variance (ANOVAs) were conducted to identify differences in victim incivility scores across groups differing in gender, occupation, age, and years of experience, according to Cohen's d values. Nomological validity, t-test analyses, and ANOVAs were tested using SPSS 23.

Results

Exploratory Factor Analysis

Skewness and kurtosis indexes showed a normal distribution of the items (values ranging from .46 to 1.38 for skewness and values ranging from –.71 to 1.98 for kurtosis). An examination of the Mahalanobis

distance scores indicated the presence of four multivariate outliers that were removed. The Barlett's test of sphericity was significant ($p < .001$) and the Kaiser-Meyer-Olkin measure was satisfactory (.90). The results from the parallel analysis indicated that the single-factor structure only provided an eigenvalue of the original data's factor (eigenvalue = 5.92) that was greater than the average of the expected eigenvalues (eigenvalue = 1.50).

Then, a first EFA ($n = 148$) was run by extracting one factor. Items 1, 6, and 10 were deleted because they had a factor loading below .40. The indexes of the EFA for the single-factor solution met the criteria for a satisfactory fit — $\chi^2 = 52.13$, $df = 27$, $p = .00$; CFI = .95; TLI = .94; RMSEA = .07; RMSEA 95% CI = [.04, .08]; SRMR = .04. Thus, these data supported a single-factor structure (see Table 1) that was composed of nine items with factor loadings ranging between .63 and .81. The average interitem correlation was .47. McDonald's omega was .96. The internal consistency was .89, CR was .89, and AVE was .51. The item-total correlation was above .30 (i.e., .64) and all items had a communality above .20 (i.e., all items ranged from .46 to .67). The factor solution accounted for 53.38% of the total variance, which is a percentage similar to that explained by the original study (i.e., 52% for the EFA; Sliter & Boyd, 2015).

TABLE 1
EFA ($n = 148$): Factor loadings and communalities of the selected nine items of the Victim Incivility Scale, explained variance, and reliability of the factors

	Factor loading	
Item	1	h^2
Item 1	.17	.11
Item 2	**.63**	.46
Item 3	**.66**	.49
Item 4	**.77**	.63
Item 5	**.81**	.67
Item 6	.31	.18
Item 7	**.68**	.53
Item 8	**.66**	.50
Item 9	**.68**	.53
Item 10	.34	.24
Item 11	**.63**	.48
Item 12	**.66**	.51
Explained variance (%)	53.38	
McDonald's omega	.96	

Note. h^2 = item communality. Factor loadings > |.40| are in bold. Explained variance and McDonald's omega refer to the single-factor solution including the nine items selected.

Confirmatory Factor Analysis

Skewness and kurtosis indexes indicated a normal distribution of the items (values ranging from .32 to 1.67 for skewness and values ranging from –.65 to 1.95 for kurtosis). An examination of the Mahalanobis distance scores showed the presence of two multivariate outliers that were deleted. The Barlett's test of

sphericity was significant ($p < .001$) and the Kaiser-Meyer-Olkin measure was satisfactory (.92). The single-factor model selected in the EFA and tested on the CFA sample ($n = 150$) with ML method met the criteria for a good fit — $\chi^2 = 37.13$, $df = 27$, $p = .09$; CFI = .98; TLI = .98; RMSEA = .05; RMSEA 95% CI = [.00, .08]; SRMR = .03; AIC = 2881.40; BIC = 2962.68; see Figure 1. Cronbach's alpha was .92, CR was .91, and AVE was .54. The average interitem correlation was .55, McDonald's omega was .98. The item-total correlation was higher than .30 (i.e., .78) and all items had a communality higher than .20 (i.e., all items ranged from .45 to .68). The factor solution accounted for 60.22% of the total variance, which is a percentage similar to that explained by the original study (i.e., 61% for the CFA; Sliter & Boyd, 2015).

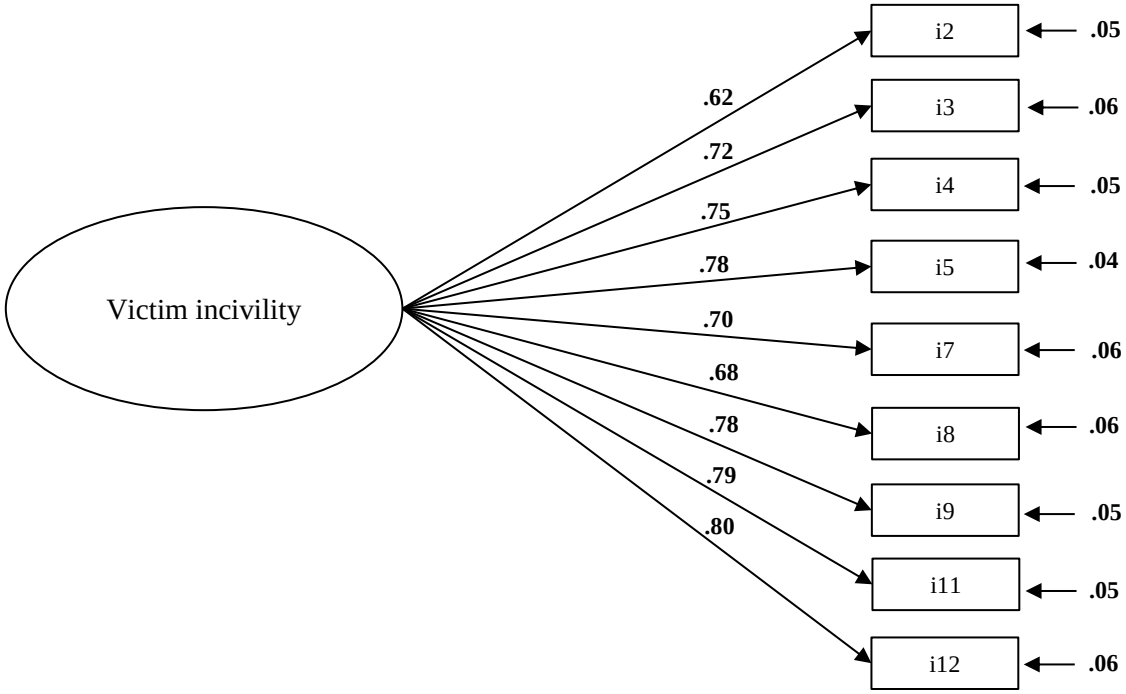

FIGURE 1
Completely standardized coefficients of the single-factor model of the Italian version of the Victim Incivility Scale
Note. $p < .001$ for all coefficients.

Measurement Invariance across Occupations

First, two CFAs were conducted for firefighters ($\chi^2 = 33.87$, $df = 27$, $p = .09$; CFI = .97; RMSEA = .04) and emergency health staff ($\chi^2 = 40.11$, $df = 27$, $p = .05$; CFI = .98; RMSEA = .05), separately. Next, we tested for measurement invariance across occupations. To this end, four MGCFAs were run. Results for the configural model CFA indicated an adequate model fit (see Table 2), suggesting that the single-factor model and the factor pattern loadings were equivalent across occupations. The second CFA evaluated the equality of factor loadings. To this end, factor loadings were constrained to be equal across the comparison groups. The difference in the χ^2 statistic for the configural and metric factorial invariance models was statistically nonsignificant ($\Delta\chi^2 = 13.04$, $\Delta df = 8$) and the difference in CFIs was below .01 (ΔCFI = .005). Then, the scalar invariance (or equivalence of item intercepts) was tested by constraining the item intercepts to be equivalent in the two groups, in addition to retaining the constraints applied in the metric invariance model. The difference in the

χ^2 statistic for the metric factorial invariance and the scalar invariance models was statistically significant ($\Delta\chi^2$ = 61.56, Δdf = 9). Thus, the full scalar invariance was not supported. However, in this case, partial scalar invariance can still be studied (Millsap & Meredith, 2007). To this end, the non-invariance of the intercepts was explored by relaxing constraints on the intercepts one by one based on modification indices. Two item intercepts (Items 2 and 4) were relaxed for reaching partial scalar invariance. The difference in the χ^2 statistic for the metric factorial invariance and the partial scalar invariance (where the intercepts of Items 2 and 4 were freely estimated) models was not statistically significant ($\Delta\chi^2$ = 13.91, Δdf = 7), and the difference in CFIs was below .01 (ΔCFI = .006). Hence, because partial scalar invariance was supported, the partial residual variance was tested by constraining all item residuals except those of Items 2 and 4 to be equivalent in the two groups, in addition to retaining the constraints applied in the partial scalar invariance model. The difference in the χ^2 statistic for the partial scalar invariance and the partial residual invariance models was not statistically significant ($\Delta\chi^2$ = 9.24, Δdf = 7) and the difference in CFIs was below .01 (ΔCFI = .002). Because at least partial scalar invariance was confirmed, the Victim Incivility Scale scores were comparable across occupations (Maffoni et al., 2021; Milfont & Fischer, 2010; Sommovigo et al., 2018).

TABLE 2
MGCFA results for measurement invariance across occupations (overall sample, N = 298)

	χ^2	*df*	$\Delta\chi^2$	Δdf	*p*	CFI	RMSEA	90% CI	ΔCFI
Firefighters model	33.87	27	–	–	.09	.974	.05	[.00,.08]	–
Emergency staff model	40.11	27	–	–	.05	.984	.05	[.05,.08]	–
Configural invariance	73.79	54	–	–	.04	.981	.05	[.05,.08]	.003
Metric invariance	86.63	62	13.04	8	.11	.976	.05	[.02,.07]	.005
Scalar invariance	143.46	71	61.56	9	.00	.930	.08	[.06,.10]	.046
Part. scalar invariance[a]	100.04	69	13.91	7	.05	.970	.05	[.03,.08]	.006
Part. residual invariance	109.15	76	9.24	7	.24	.968	.05	[.03,.07]	.002

Note. χ^2 = chi-square test of model fit; *df* = degree of freedom; $\Delta\chi^2$ = difference in chi-square between models; Δdf = difference between degrees of freedom; CFI = comparative fit index; RMSEA= root-mean-square error of approximation; CI = confidence interval; ΔCFI = difference in CFI between models; [a] freely estimated intercept of Items 2 and 4.

Nomological Validity

Results of correlations are shown in Table 3. Victim incivility was statistically significantly and positively associated with burnout symptoms (r = .36, p < .01) and psycho-physical malaise (r = .23, p < .01), while it was statistically significantly and negatively related to job satisfaction (r = –.16, p < .01). Thus, the correlations were in the expected directions. The effect size was small for Pearson's r correlations between victim incivility and both psycho-physical malaise and job satisfaction, while it was medium for the correlation between victim incivility and burnout symptoms.

Results from *t*-test analyses indicated that there were statistically significant differences in victim incivility scores across gender, $t(278)$ = –3.51, p < .01, 95% CI [–.44, –.12], so that women (M = 2.13, SD = 0.78) reported experiencing greater victim incivility than men (M = 1.85, SD = 0.57), even if Cohen's d values suggested the presence of a small effect size (d = .04). Statistically significant differences were also revealed for occupations, $t(296)$ = 3.62, p < .001, 95% CI [.13, .44], so that emergency health workers (M = 2.03, SD = 0.68) referred greater victim incivility than firefighters (M = 1.75, SD = 0.57). Cohen's d values

indicated that this difference was small (d = .04). Next, to run ANOVAs, we created four clusters for age (i.e., 25-35 years, 36-45 years, 46-55 years, over 55 years) and four categories for overall job tenure (i.e., 1-10 years, 11-20 years, 21-30 years, over 31 years). Results from ANOVAs indicated that there were statistically significant differences in victim incivility perceptions across groups with different years of overall job tenure, $F(3, 269) = 3.31$, $p < .05$, while no statistically significant differences were observed for groups differing in age, $F(3, 270) = .67$, $p = .57$. Bonferroni post-hoc comparisons showed that individuals who had between 1 and 10 years of overall job tenure ($M = 2.28$, $SD = 0.57$) were more likely to refer victim incivility than those who had between 21 and 30 years ($M = 1.86$, $SD = 0.64$), or more than 30 years ($M = 1.88$, $SD = 0.68$) of experience.

TABLE 3
Descriptive statistics and intercorrelations among the study variables in the total sample (N = 298)

	M	*SD*	Skewness	Kurtosis	1	2	3	4	5	6	7
1. Incivility	1.93	0.65	1.10	2.66	**.90**						
2. Burnout	1.26	0.96	1.49	2.60	.36**	**.89**					
3. GHQ	9.64	4.03	1.21	2.60	.23**	.48**	**.81**				
4. Satisfaction	7.43	1.88	–1.20	1.53	–.16**	–.50**	–.28**	-			
5. Gender	–	–	–	–	.21**	.22**	.20**	–.16*	-		
6. Age	48.24	7.94	–0.96	0.63	–.11	–.07	–.01	–.01	–.16*	-	
7. Job tenure	27.49	10.01	–0.85	0.04	–.15*	–.17**	–.11	.04	–.21**	.86**	-
8. Occupation	–	–	–	–	–.21**	–.26**	–.18**	.27**	–.60**	.16**	.32**

Note. Boldfaced numbers on the diagonal represent Cronbach's alpha; *M* = mean; *SD* = standard deviation. Gender: 1 = men, 2 = women; Occupation: 1 = emergency health workers, 2 = firefighters.
*$p < .05$; **$p < .01$.

DISCUSSION

This study aimed to provide a preliminary version of the Victim Incivility Scale (Sliter & Boyd, 2015) in Italian and to examine its dimensionality in a sample of emergency workers, including firefighters and emergency health workers. Based on the results from EFA, the scale was reduced from 12 to 9 items and the original single-factor structure was confirmed. The results did not support full metric invariance, but only partial scalar invariance across occupations, given the existence of two noninvariant item intercepts, suggesting that these items had different connotations for firefighters and emergency health workers. The first affirmation refers to a victim changing his/her story while talking to an emergency worker. This difference might be due to dissimilarities in the kind of information collected and in the reasons why emergency health workers and firefighters collect it, in addition to the motivations that lead victims to lie. To make an accurate diagnosis and provide an effective treatment, emergency health workers need to obtain reliable information from patients and their family members. Unfortunately, patients often distort or lie about information that is crucial by minimizing or exaggerating symptoms, avoiding fundamental clinical issues, and, in some cases, manipulating information with the intent of avoiding undesirable consequences, gaining secondary benefits (e.g., medications), reducing their embarrassment or presenting themselves in a better light (Palmieri & Stern, 2009). Conversely, victims who are rescued by firefighters might be more likely to manipulate information about the causes of a critical incident to avoid undesired legal penalties for their acts. The second affirmation

regards a victim saying rude things. Dissimilarities in the interpretation of this item might be explained by the respect historically given in the Italian context to firefighters seen as a respected neutral group. Conversely, emergency health workers in EDs are more likely to be blamed for the deficiencies of healthcare organizations, such as the long waiting time often required to be treated, the shortage of personnel, and the inadequacy of structures. As a result, the content and intensity of the verbally uncivil acts may be different. Namely, emergency workers might interpret the content of these items differently because of the different settings in which they are trying to help victims.

The analyzed correlations are in the hypothesized directions as support for concurrent validity. Victim incivility is positively correlated with burnout and psycho-physical malaise, while it is negatively associated with job satisfaction, confirming the fact that victim incivility may have negative effects on emergency workers' well-being and job-related outcomes. Moreover, the current study found that women reported experiencing more incivility than men. This finding is in line with what was found by some previous studies (e.g., Cortina et al., 2001, 2013) and in accordance with the results from a meta-analytic work (McCord et al., 2018) on sex differences in perceived workplace mistreatment showing that women perceived significantly more general and sex-based incivility ($\delta = .06$) than men, even though the magnitude of these dissimilarities was small. A possible explanation might be drawn on Cortina's (2008) theory of incivility as a covert manifestation of a subtle bias that may be primarily directed at traditionally marginalized outgroups, such as women. Thus, given that in today's society overt discrimination against out-groups is socially sanctioned but biases against underrepresented groups still exist, prejudices toward a particular social group may manifest itself in selective incivility. As a result, women may experience more incivility in the workplace than men because incivility may be enacted both as a general kind of mistreatment and as a gendered kind of mistreatment selectively targeting women as members of the less socially dominant group (Settles & O'Connor, 2014). Furthermore, the present research revealed that emergency health workers reported significantly greater victim incivility than firefighters. This result is not surprising because firefighters may differ from emergency health workers in terms of demands, training, and exposure, and thus the likelihood of victim incivility may be different as well (Sliter, 2012). On the other hand, no statistically significant differences were found across age groups, even though there was a decreasing tendency to perceive incivility with the increasing of age. This might be explained by the fact that older employees tend to engage in lower revenge, sabotage, and deviant behaviors (Bedi & Schat, 2017; Walker et al., 2017) than younger workers. Indeed, older workers are more likely to achieve greater maturity in their moral reasoning about forgiveness and to prefer reconciliation strategies in response to perceived injustice (Aquino et al., 2001), which might enable them to thwart potential incivility spirals. This nonsignificant result is in line with what was found by some scholars analyzing age differences in workplace incivility experience (e.g., Cortina et al., 2001; Viotti et al., 2018). Conversely, emergency workers with more years of overall experience reported significantly greater victim incivility than their less experienced counterparts probably because job tenure is likely to generate cognitive resources that foster job knowledge, learning, and task expertise, in addition to enhancing workers' ability to undertake desirable behaviors beyond those related to the specific task (Koopman et al., 2015). For example, more experienced emergency workers might have mastered the task-specific features of their jobs and thus may possess more resources to invest in showing the proper emotions and behaviors when providing assistance to the victims (Wang et al., 2011). Thus, they may be better able to tailor their behaviors and emotional displays to satisfy victims' needs and requests. As a result, more experienced emergency workers, who benefit from these cognitive qualities, might be less likely to trigger uncivil reactions in victims. Moreover, they might effectively de-escalate negative exchange spirals by acting in a supportive way and thus experience lower victim incivility. However, the results concerning the comparisons based on gender, age,

and overall job tenure should be interpreted with caution because the invariance of the Victim Incivility Scale was not tested on these groups.

Our analyses confirmed item adequacy and a satisfactory internal consistency of the scale. The reliability of the scale ranged between .89 (EFA group) and .92 (CFA group), similarly to the reliabilities found by Sliter and Boyd (2015), which ranged between .91 (EFA group) and .92 (CFA group).

Overall, our results revealed that the Italian version of the Victim Incivility Scale represents a user-friendly instrument to assess victim incivility among emergency workers.

Limitations and Future Perspectives for Research

The contributions of the present study should be interpreted in light of its limitations. Even though our sample was composed of firefighters from two firehouses and emergency health workers from six hospitals, the current research was limited to one Region located in Northern Italy. Furthermore, the total sample was mainly composed of men and the firefighters were all male. As a result, although our sample is representative of these employees' cohorts within the Italian healthcare context, we could not test the measurement invariance across gender. Thus, an investigation of larger and more nationally representative and gender-balanced samples of Italian emergency workers is needed to confirm the preliminary results provided by the current research. This will also provide enough participants to analyze the invariance of the victim incivility factor structure across gender and then corroborate the stability of the model.

We tested the Victim Incivility Scale model of measurement not only with firefighters but also with emergency health workers. On one hand, this enabled us to increase the generalizability of this scale and to provide an instrument having multi-professional applicability, which may facilitate practitioners in designing interventions specifically targeting emergency workers. On the other hand, even though firefighters and emergency health workers may receive incivility from the persons they are trying to help in emergencies, they may differ from each other in demands, training, exposure, professional setting, and the likelihood of victim incivility. Because only partial scalar invariance across occupational groups was confirmed, future studies should examine more deeply how firefighters and emergency health workers interpreted these items by using qualitative data (e.g., interviews). Additionally, a promising area for future research would be to analyze whether the Italian version of the Victim Incivility Scale could also be suitable for other emergency service occupations, such as police officers and members of the Civil Protection Department working in emergency response situations.

Furthermore, because of the cross-sectional and self-reported nature of the present research, causal relationships cannot be inferred, and this study may suffer the limitations of such a methodology, including social desirability bias. To reduce this bias, we followed Podsakoff and colleagues' (2003) recommendations regarding questionnaire design. Moreover, to further reduce participants' evaluation apprehension and social desirability concerns (Podsakoff et al., 2003), we did not gather information about participants' firehouse/hospital location and position. As such, future studies could collect data from multiple sources (e.g., observations of actual behaviors) and adopt a longitudinal design to verify the test-retest reliability of the Italian version of the Victim Incivility Scale.

We shortened the Victim Incivility Scale based on EFA indices rather than using a response theory (IRT)-based methodology (i.e., a methodology which assesses the associations between a respondent's response on an item and its corresponding latent variable level; Edelen & Reeve, 2007), which allows to retain the most informative items as well as to identify misfitting items and items exhibiting differential item

functioning, maintaining assessment precision and facilitating the comparison with the original instrument (see, e.g., Colledani, Anselmi, & Robusto, 2018, 2019a, 2019b, Colledani, Robusto, & Anselmi, 2018; Reise, 2009). Thus, we were interested in the properties of the overall scale and our relatively small sample size limited the possibility to achieve sufficient accuracy of the estimates that may be attained from the utilization of IRT. Future research should consider integrating classical test theory and IRT techniques to verify on a larger population whether we effectively selected the best items to represent the Italian version of the Victim Incivility Scale.

Finally, the current study did not test convergent and discriminant validity because of the lack of other Italian validated scales examining similar and dissimilar constructs. However, this enabled to prevent low response rates due to the administration of an excessively long survey. Likewise, nomological validity was supported by showing that the correlations of the scale with other relevant variables (i.e., burnout, psycho-physical malaise, and job satisfaction) were in the hypothesized directions. Future research is needed to investigate whether the Italian version of the Victim Incivility Scale correlates with other constructs which were found to be statistically significantly related to other types of outsider incivility. Moreover, more research is needed to identify whether personal and situational factors which have been identified as protective factors against job stressors, such as mindfulness (e.g., Montani et al., 2020) and managerial support (e.g., Sommovigo et al., 2021), might make emergency workers stronger in the face of victim incivility.

Conclusion

The preliminary Italian version of the Victim Incivility Scale provides, for the first time in this country, both researchers and practitioners with the opportunity to use a context-specific reliable instrument to assess emergency workers' perceptions of victim incivility. Analyzing predisposing factors to victim incivility, its likelihood, and reactions is fundamental to formulate tailored interventions aimed to help emergency workers maintain their psycho-physical well-being and effectively help victims in emergencies.

Note

1. The Italian version of the items is available upon request from the first author.

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