☙ **RESEARCH PAPER** ☙

Bullying among nurses and its relationship with burnout and organizational climate

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Workplace bullying is one of the most common work-related psychological problems. Bullying costs seem higher for organizations composed of health-care workers who perform direct-contact patients-complex tasks. Only a few studies have been carried out among nurses in Italy and integrated models of bullying antecedents and consequences are particularly missing. The aim of this study was to develop a bullying model focused on the interaction between bullying and burnout in the setting of a climate–health relationship. Research involved 658 nurses who completed a survey on health, burnout, bullying and organizational climate. Structural equation modeling was used to test the hypothesis. Results suggest that workplace bullying partially mediates the relationship between organizational climate and burnout and that bullying does not affect health directly, but only indirectly, via the mediation of burnout. Our study demonstrates the key-role of workplace bullying and burnout in the climate–health relationship in order to understand and to improve nurses' health.

Key words: health care, nursing, occupational health, professional burnout, workplace bullying.

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INTRODUCTION

Its growth now a worldwide phenomenon, workplace bullying is considered one of the most common work-related psychological problems.[1] Bullying means 'harassing, offending, socially excluding someone or negatively affecting someone's work tasks. In order for the label bullying (or mobbing) to be applied to a particular activity, interaction or process it has to occur repeatedly and regularly (e.g. weekly) and over a period of time (e.g. about six months)'.[2] In addition, there is strong evidence that bullying has detrimental effects on both individuals and organizations. These include reduced well-being and reduced job satisfaction, helplessness, sleep problems, concentration difficulties and negative emotions (anger, frustration, depression, anxiety), which might lead to corrective actions in terms of wrongdoing, self-harm, suicide, etc.[3–6] Furthermore, bullying is extremely expensive in terms of manpower, increased absenteeism, higher intent to leave the organization and staff turnover.[7–11]

Workplace bullying among nurses

The cost of bullying appears to be higher for organizations composed of health-care workers performing complex tasks in direct contact with patients. Indeed, health-care employees have a high risk of exposure to bullying at work.[11–14] Such studies show that people working in health care (primarily nurses and doctors) have a 16-fold higher risk of being exposed to negative behaviours than other service sectors workers and that the risk to nurses is three times higher than that of other health service employees.[15] Despite increasing international attention on workplace bullying, few studies have been performed among nurses in Italy. In addition, as underlined in recent studies, the effects of bullying on health might be limited among Italian employees due to the fact they have a higher acceptance and tolerance of negative workplace acts. Victims might attribute bullying behaviours to different aspects of the environment, such as the work group culture, especially nurses, who might be more resigned to the lack of autonomy and power.[16]

Indeed, considering that bullying in Italy is mainly a top-down process, in which the target is usually in a lower position than the perpetrator,[17,18] and the fact that, in some professions, especially among nurses,[16] bullying might be considered as part of the job,[19,20] it seems clear that nurses tolerate negative acts and do not complain about bullying. Thus, an illustration of bullying among Italian nurses will be given in the present study with the aim of developing a model focused on the interaction between bullying and burnout in a climate–health relationship.

Organizational factors as antecedents of bullying in nurses

Although it is clear that workplace bullying is prevalent among nurses and there are serious implications to the problem,[21,22] there is little awareness of this phenomenon and why workplace bullying continues in health-care environments.

International literature suggests that low autonomy and high workloads are some of the characteristics that encourage bullying, contributing to a climate wherein it can flourish.[23–25]

According to a recent Canadian study conducted among health-care-workers,[26] it seems that the main causes of between-nurses bullying are organizational dimensions such as work overload, lack of control, insufficient reward and lack of managerial communication. Several studies of nurses from the UK,[25] Australia,[27] New Zealand[13] and the USA[28] have reported that leadership is often the source of bullying behaviours. Nurses often work in hierarchical organizational structures that encourage bullying.[23,29–31] Bullying behaviours can be used to reinforce rules and norms and to neutralize nurses who seek to challenge the status quo.[24,30]

Bullying and burnout

Several studies have investigated the occurrence of bullying and its potential consequences, particularly the relationship between workplace bullying and symptoms of burnout. Bullying is largely associated with psychological distress and psychosomatic complaints, including experiences of burnout.[12,32] In a Finnish study of more than 5000 hospital staff members, it was found that bullying victims had 26% more certified absences than those who had not suffered this phenomenon. Bullying, in hospitals and other organizations, has been associated with self-reported burnout and the propensity to leave.[33] A study of 745 Norwegian nurses[12] showed how bullied nurses presented a significantly higher level of burnout compared with their non-bullied colleagues.

A recent study among 1179 nurses in Quebec[34] investigated how exposure to workplace bullying undermines psychological health at work. The results showed that workplace bullying negatively predicted work engagement and positively predicted burnout, due to the lack of

employee autonomy. Another study investigated the potential associations between bullying and burnout symptoms in 107 Portuguese nurses. Results indicated that bullied nurses presented significantly higher levels of burnout. Symptoms of burnout (emotional exhaustion and depersonalization) were higher and more frequent among nurses who reported to have been bullied.[35]

In a Norwegian research, the occurrence and potential consequences of bullying and harassment in the restaurant sector were explored.[5] Results showed a positive association between exposure to bullying behaviour and individual burnout. Employees exposed to bullying felt more exhausted, were more cynical towards their job and felt to be less efficient as a worker. Although weaker, similar relationships were found for observed bullying and for being subjected to bullying. Studies carried out among teachers[36] evaluated stress (workload and workplace bullying), strain (physical symptoms and burnout) and moderating variables (self-efficacy, social support and coping strategies). These studies support the assumptions that exposure to workload or mobbing can lead to increased strain (physical symptoms and burnout) among school teachers. Furthermore, the negative impact of stress on strain can be buffered through factors such as perceptions of support and the use of appropriate coping strategies.[37]

Development of a model

As previously underlined, there are several studies in international literature on nurses being bullied that revealed organizational antecedents and personal consequences for the victims. However, integrated models of bullying antecedents and consequences are missing in Italian literature. Here, we wish to explore the assumption that workplace bullying is associated with organizational climate. In addition, according to the literature, organizational climate is recognized to be associated with burnout.[2] Consequently, the role of workplace bullying on the climate–burnout relationship is assumed in our hypothesis. Indeed, people who perceive a negative organizational climate and feel to be victimized might report burnout.[38] Negative acts might be considered more harmful by victims because they occur in a hostile and negative organizational climate. Some negative acts, commonly stressful, but normally tolerated, might be perceived as intentional and harmful when the climate is negative.[37] Indeed, when the target feels intentionality on the part of the harasser, he or she starts to feel bullied and to develop health and burnout problems.[20] Furthermore,

a negative organizational environment could be related to burnout; if people suffer negative acts, the climate might be perceived not only as negative, but also as deconstructive and could be associated with burnout, leading to mental and physical health problems. Thus, in our view, bullying and organizational climate could be related with burnout in nurses. Burnout, then, will have an impact on psychological and physical health. To evaluate this problem, we propose a theoretical model of the antecedents and the outcomes of workplace bullying among Italian nurses. A complete description of the development of this model is shown in Figure 1.

First, we primarily want to test the association of organizational climate with workplace bullying, in which the team, leadership, job involvement and description, autonomy and communication could contribute to workplace bullying, as well as to two of its components: work-related bullying and personal bullying. Second, we hypothesize that harassment could be negatively related to burnout. Third, we hypothesize that burnout could be associated with psychological and physical health. We also propose that a negative organizational climate might result in a direct contribution to health. The degree to which health is affected in the climate–health association could be considered an important baseline against which the potential effects of workplace bullying and burnout on health could be evaluated. In short, we have three main hypotheses:

Hypothesis 1: Workplace bullying partially mediates the climate–burnout relationship.

Hypothesis 2: Workplace bullying influences health through the mediation of burnout.

Hypothesis 3: Organizational climate influences health, both directly and indirectly, through the mediation of burnout.

METHOD
Sample and procedures

This study involved 658 nurses working for the Local Health Authorities (LHA) in Lecce (Italy). Forty-eight per cent of the nurses were male and the remaining 52% female. They were chosen conveniently and represented 78% of the nursing population in LHA/Lecce. Psychologists administered the questionnaire during professional courses. In this context, the compilation of the survey was very thorough and nearly all of the questionnaires were
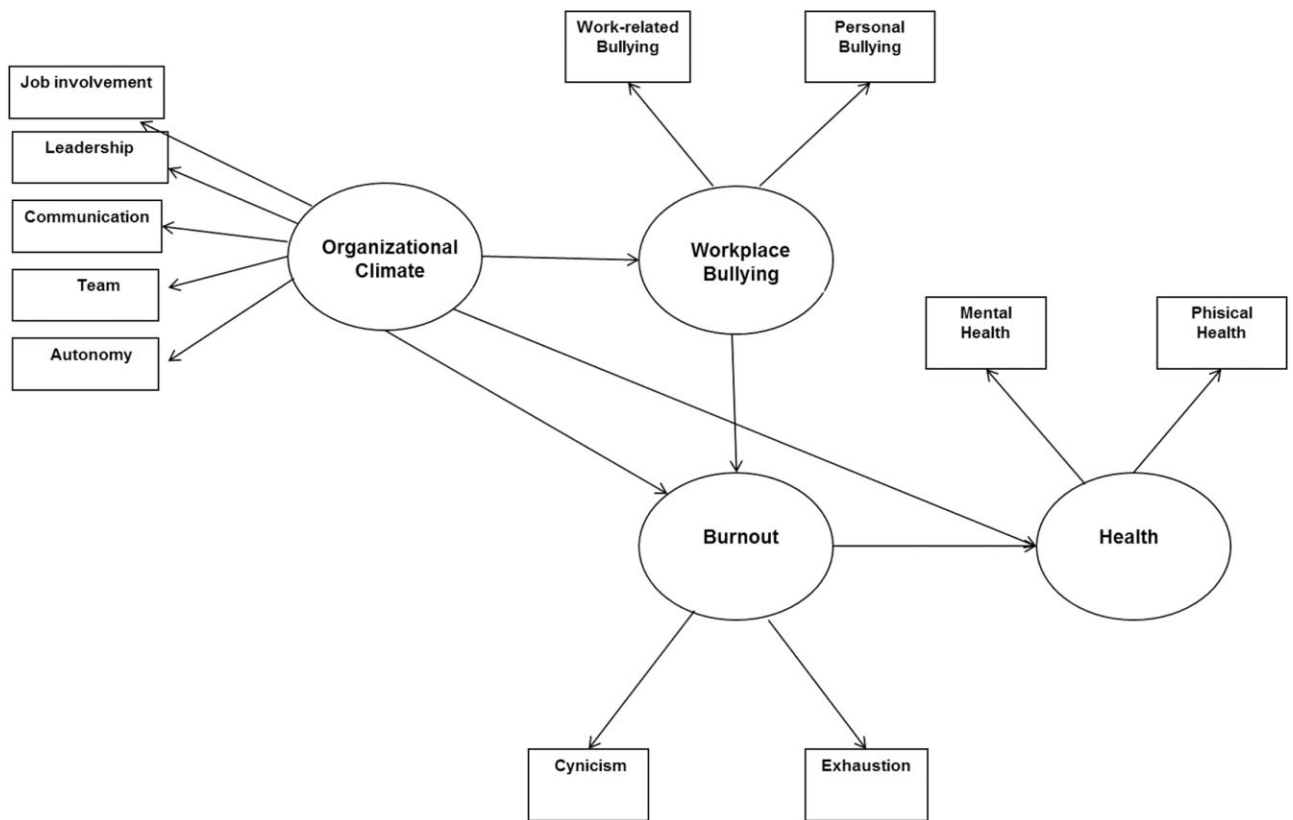
Figure 1. (The) proposed theoretical model. Note: Organizational climate was assessed using five psychological aspects of climate: communication, leadership, job involvement, team and autonomy; workplace bullying was divided into personal bullying and work-related bullying; health was assessed by perceived psychological and physical health; burnout was assessed by two indicators, measuring cynicism and emotional exhaustion.

collected with complete data or only a few missing elements that were replaced with the scales' means. Consequently, the response rate was very high: 90%. Data were collected preserving the nurses' anonymity, and participation was voluntary. No payment was provided to participants. The average time to fill in the questionnaire was 40 min. Informed consent was obtained from each subject of the research. An Italian University ethics committee approved the study. As far as the participants are concerned, 31% of the nurses had less than 15 years seniority, 47% between 15 and 25 years and 22% over 25 years. Eighty per cent of them had been working under open-ended contracts and 20% under fixed-term contracts.

Instruments

Health Scale

This scale assesses the level of perceived psychological and physical health. It uses 20 factors, divided into psychological factors (10 factors, e.g. 'I felt exhausted') and physical (10 factors, e.g. 'I had sleep problems'). The health scale measures both physical (energy and fatigue, pain and discomfort, sleep and rest) and mental health (negative feelings, concentration, anxiety and depression) by asking whether the respondent had recently experienced a symptom or behaviour of psychological or physical disturbance. It was successfully validated in Italy among a population of more than 8000 employees.[39] In addition, the instrument was shown to have adequate convergent validity with theoretically related constructs, such as work-related stress. Subjects were asked to answer to each item using a five-point Likert scale. Higher scores indicate perceptions of negative health status (1 = never, 5 = almost every day). The reliability of the health scale in this study was very high: Alpha = 0.93.

Burnout

Burnout was assessed by the 8-item scale Burnout Indicator Tool (BIT), developed in Italy.[40] Four factors measure cynicism and the other four factors measure emotional

exhaustion. The scale was validated in a sample of 814 health-care service employees. An exploratory factor analysis and a confirmatory factor analysis rendered support for the construct validity of the scale. In this study, BIT presented a good reliability as Alpha was 0.75.

Negative Acts Questionnaire Revised (NAQ-R)

Workplace bullying was assessed by a reduced version of the NAQ-R; this was validated in Italy,[17] although the original version was developed in English.[4] The factors are divided into personal bullying (12 factors) and work-related bullying (5 factors). In the present sample, the NAQ-R (Italian version) had an Alpha of 0.88.

Majer-D'Amato Organizational Questionnaire (MDOQ10)

Organizational climate was assessed by 5 out of 10 factors of the MDOQ10.[41] D'Amato and Majer distinguished organizational from psychological aspects of climate. The psychological climate factors were assessed in this study: (i) communication—the free sharing of information throughout the organization; (ii) autonomy—designing jobs in ways which give employees wide scope to enact their work; (iii) team—group cohesion, collaboration and support among employees; (iv) job involvement—the extent to which employees experience commitment and dedication in the organization; (v) leadership—the extent to which employees experience support and understanding from their supervisors or leaders.

In this study, MDOQ10 factors internal consistency estimates were: communication (0.80), autonomy (0.78), team (0.83), job involvement (0.70) and leadership (0.73).

Data analysis

The coefficients of correlation were calculated, and a structural equation modeling (SEM) was used to examine structural models. To examine the hypothesis, a series of analyses and comparisons of competitive models were conducted. Chi-square difference test for nested models were conducted.[42] In order to evaluate (the fit of) the models, multiple indices (of fit) were examined.[43] One of the most used (fit) indices is (the) chi-square ($\chi 2$); a small $\chi 2$ indicated that the observed data was not significantly different from the hypothesized model. However, many authors have suggested that the chi-square test presents limitations, especially in large sample studies.[44] Therefore, to support the appropriateness of the model,

alternative indices, which seem preferable in large samples, were used: (i) the goodness of fit index (GFI)[45]; (ii) the comparative fit index (CFI)[46]; (iii) the root mean square error of approximation (RMSEA)[47] and the root mean square residual (RMR)[45]; and (iv) the incremental fit index (IFI).[43] The following criteria were established to assess the model fit: GFI ≥ 0.90, AGFI ≥ 0.90, CFI ≥ 0.90, RMSEA < 0.08, IFI ≥ 0.90.[48]

RESULTS

Table 1 presents correlations among the research variables. All dimensions presented in the model were correlated.

The results from the structural equation modeling partially support the theoretical model (Fig. 1). As can be seen in Figure 2, organizational climate is associated with negative acts ($\beta = -0.56$). Negative acts ($\beta = 0.47$) and organizational climate ($\beta = -0.15$) are then associated with burnout. Finally, burnout is associated with health ($\beta = 0.75$).

Hypotheses 1 and 2 were confirmed: workplace bullying partially mediated the climate–burnout relationship and influenced health only indirectly, through the mediation of burnout. The third hypothesis was only partially confirmed, because a direct effect of climate of health was not found. Indeed, the direct association of organizational climate with health is not significant. However, the effects of bullying and burnout were found in the climate–health relationship; consequently, organizational climate affected health only indirectly. An evaluation of the considered indices showed that this model met the recommended criteria better than competitive models: GFI = 0.959, AGFI = 0.933, CFI = 0.953, RMSEA = 0.066, IFI = 0.953. In combination, these indices suggest a satisfactory fit to the data. Examination of the path coefficients for the model (Fig. 2) indicated the proposed paths were significant, with standardized estimates ranging from 0.84 to 0.15.

DISCUSSION AND CONCLUSION

The present study supports the importance of poor organizational climate, workplace bullying and burnout as predictors of negative psychological health. However, climate impacts on health only directly, highlighting the significant and important roles played by bullying and burnout. Negative organizational climate might have a limited impact on health. As advanced earlier, nurses learn to cope with or to tolerate job and organizational

Table 1 Correlations among variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Gender	—	-0.109**	-0.072	-0.172**	0.029	0.032	-0.028	0.067	-0.036	0.060	-0.046	0.228**	0.199**	0.004	-0.046
2 Seniority	-0.109**	—	0.200**	0.480**	-0.102**	-0.087*	-0.013	-0.163**	-0.005	0.024	0.086*	0.093*	0.094**	0.015	0.070
3 Office hours	-0.072	0.200**	—	0.127**	-0.035	0.029	0.063	0.004	0.128**	0.046	-0.081*	-0.015	-0.016	-0.058	0.007
4 Contract	-0.172**	0.480**	0.127**	—	-0.099*	-0.045	-0.019	-0.080*	0.086*	0.007	0.087*	0.016	0.040	-0.018	0.067
5 Job Involvement	0.029	-0.102**	-0.035	-0.099*	—	0.396**	0.379***	0.396***	0.327***	-0.153**	-0.253***	-0.183***	-0.283***	-0.178***	-0.283***
6 Leadership	0.032	-0.087*	0.029	-0.045	0.396**	—	0.584***	0.636***	0.510***	-0.161**	-0.217***	-0.133***	-0.241***	-0.325***	-0.336***
7 Team	-0.028	-0.013	0.063	-0.019	0.379***	0.584***	—	0.560***	0.426***	-0.191**	-0.253***	-0.170***	-0.206***	-0.319***	-0.408***
8 Communication	0.067	-0.163**	0.004	-0.080*	0.396***	0.636***	0.560***	—	0.389***	-0.153**	-0.223***	-0.113***	-0.203***	-0.333***	-0.301***
9 Autonomy	-0.036	-0.005	0.128**	0.086*	0.327***	0.510***	0.426***	0.389***	—	-0.124**	-0.181***	-0.203***	-0.241***	-0.208***	-0.260***
10 Exhaustion	0.060	0.024	0.046	0.007	-0.153**	-0.161**	-0.191**	-0.153**	-0.124**	—	0.335**	0.469**	0.380**	0.290**	0.208**
11 Cynism	-0.046	0.086*	-0.081*	0.087*	-0.253***	-0.217***	-0.253***	-0.223***	-0.181***	0.335**	—	0.306**	0.327**	0.252**	0.269**
12 Physical Health	0.228**	0.093*	-0.015	0.016	-0.183***	-0.133***	-0.170***	-0.113***	-0.203***	0.469**	0.306**	—	0.720**	0.214**	0.247**
13 Mental Health	0.199**	0.094**	-0.016	0.040	-0.283***	-0.241***	-0.206***	-0.203***	-0.241***	0.380**	0.327**	0.720**	—	0.307**	0.350**
14 NAQ work	0.004	0.015	-0.058	-0.018	-0.178***	-0.325***	-0.319***	-0.333***	-0.208***	0.290**	0.252**	0.214**	0.307**	—	0.588**
15 NAQ personal	-0.046	0.070	0.007	0.067	-0.283***	-0.336***	-0.408***	-0.301***	-0.260***	0.208**	0.269**	0.247**	0.350**	0.588**	—

$* P < .05$ (2-tailed); $** P < .01$ (2-tailed).

difficulties typical of the profession. However, where they are victims of workplace bullying and develop burnout symptoms, their health is seriously affected. In addition, our results suggest that workplace bullying partially mediates the relationship between organizational climate and burnout. Thus, increased perceptions of bullying are associated with burnout and seem to play a significant role in health. Indeed, when bullying occurs, people working in hostile and negative organizational climates are generally inclined to consider it as intentional and harmful, to perceive the seriousness of the event and to feel a victim and at risk of burnout.[20] Consequently, people perceiving a bullying and negative organizational climate are more prompt to report burnout. Indeed, burnout is more likely to appear in those organizations where a 'climate for bullying' exists (e.g. negative communication, poor leadership, lack of support). The association of bullying with burnout agreed with current literature that reported a significant association between bullying behaviours and burnout.[35] Accordingly, employees often did not experience isolated stressors and the effects of multiple stressors seem particularly hazardous.[49] In addition, our study shows that workplace bullying does not affect health directly, but indirectly, via the total mediation of burnout. Indeed, bullying is associated with nurses' psychological and physical health through the mediation of burnout only. According to recent studies, organizations could have greater responsibility[50,51] for diffusing negative acts, and employees could tolerate and accept these negative acts, unless they report burnout. Indeed, our results suggest that organizational climate does not affect health directly, but only via the mediation of bullying and burnout. These findings demonstrate the importance of workplace bullying and workplace burnout in the climate–health relationship and suggest that, in order to understand and to study nurses' health, attention must be paid to this pattern.[16,31,52,53] This particular finding leads us to reflect on the importance that workplace climate perception has on mental and physical health. Negative climate perceptions could be considered tolerable and endurable, whereas when employees suffer burnout and bullying simultaneously they could be perceived as harmful and intolerable, causing negative consequences on workers' health. Consequently, bullying and burnout can intensify the effect of a negative workplace climate on health, creating a toxic work environment. Once a workplace has an entrenched pattern of negative interaction, it can be difficult to disrupt.[38]
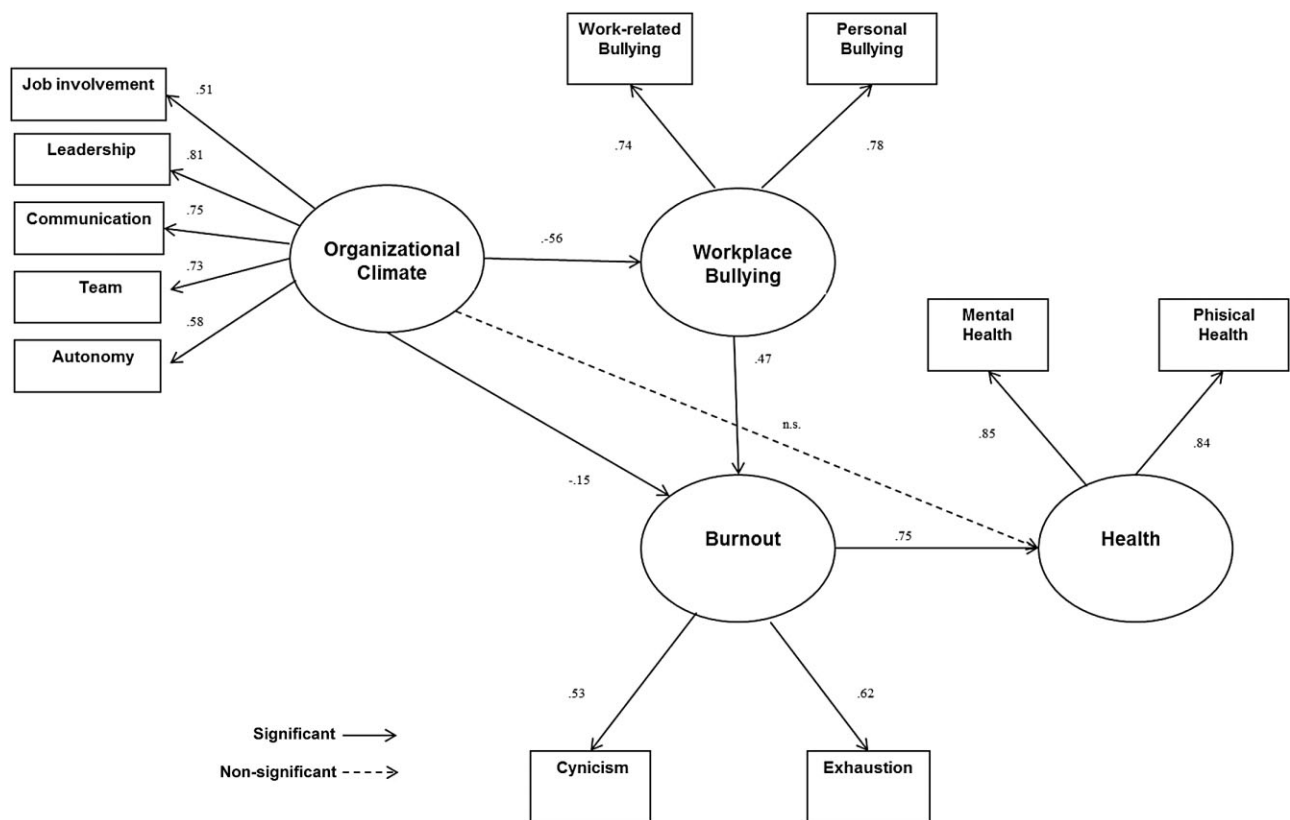
Figure 2. (The) proposed structural equation model. Note: Organizational climate was assessed by five psychological aspects of climate: communication, leadership, job involvement, team and autonomy; workplace bullying was divided into personal bullying and work-related bullying; health was assessed by perceived psychological and physical health; burnout was assessed by two indicators, measuring cynicism and emotional exhaustion.

Limitations exist in this study. Caution is necessary with cross-sectional data because causality cannot be inferred. Additionally, our study used only one source of information for data collection (self-reported questionnaire), which might introduce common bias and might inflate correlations between variables.[54] Furthermore, the samples are limited and are not representative of the Italian population. Thus, further research should overcome these limitations and conduct studies using different information sources and samples. However, implications for this study do exist. Due to the limited role played by organizational climate on health, the policies, orientation, training programmes and interventions that aim to improve health would benefit from a focus on workplace bullying and burnout. Such interventions should be performed by supervisors or co-workers to increase their knowledge of these organizational occurrences. In particular, our results suggest that organizational programmes that take into consideration the prevention of workplace bullying and burnout can better create protective factors for mental

health and physical problems than by focusing solely on the organizational climate. In addition, providing supervisors with skills and information on bullying and burnout could have a positive effect on both individuals and teams. In addition, our results underline the importance of measuring organizational climate, workplace bullying and burnout concurrently, in order to prevent health problems in nurses. The present findings show that focusing on organizational climate alone is not sufficient, because the occurrences of harassment and burnout problems might have additional negative effects on health. In our opinion, an integrated evaluation on the effects of burnout, bullying and organizational climate is necessary to better understand how to promote health and prevent psychological and physical problems. Finally, this study underlines the phenomenon of bullying tolerance and negative organizational climate acceptability that appear novel in the research field; different interventions appear to be needed in professions where bullying is more acceptable and invisible than in professions where bullying appears

socially sanctioned and visible. In conclusion, programmes aimed to reduce nurse resignations because of a lack of power and autonomy are recommended in order to prevent the development of burnout as well as improve well-being at work.

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