Workplace incivility, lateral violence and bullying among nurses. A review about their prevalence and related factors

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Abstract. *Background:* Negative interactions among nurses are well recognized and reported in scientific literature, even because the issues may have major consequences on professional and private lives of the victims. The aim of this paper is to detect specifically the prevalence of workplace incivility (WI), lateral violence (LV) and bullying among nurses. Furthermore, it addresses the potential related factors and their impact on the psychological and professional spheres of the victims. *Methods:* A review of the literature was performed through the research of papers on three databases: Medline, CINAHL, and Embase. *Results*: Seventy-nine original papers were included. WI has a range between 67.5% and 90.4% (if WI among peers, above 75%). LV has a prevalence ranging from 1% to 87.4%, while bullying prevalence varies between 2.4% and 81%. Physical and mental sequelae can affect up to 75% of the victims. The 10% of bullied nurses develop Post-Traumatic Stress Disorder Symptoms. Bullying is a predictive factor for burnout (β=0.37 p<0.001) and shows a negative correlation with job efficiency (r=-0 322, p<0.01). Victims of bullying recorded absenteeism 1.5 times higher in comparison to non-victimized peers (95% CI: 1.3-1.7). 78.5% of bullied nurses with length of service lower than 5 years has resigned to move to other jobs. *Conclusions*: There is lack of evidence about policies and programmes to eradicate workplace incivility, lateral violence and bullying among nurses. Prevention of these matters should start from spreading information inside continue educational settings and university nursing courses.

Key words: workplace incivility, lateral violence, bullying, nurses, prevalence, review

Background

Currently, negative relationships among nurses are an issue well-recognized worldwide and reported by the literature, even because this phenomenon can determine negative consequences for the professional and private lives of the victims.

A review performed by Spector et al. in 2014 (1), showed that on a total sample of 151307 nurses, derived from 136 studies, the 36.4% was exposed to physical violence (PV) and the 67.2% to the non-physical one (NPV). In Europe, there was an exposure of the 35% to PV and 59.5 % to NPV, the latest being usually perpetrated by other nurses or physicians (1).

In view of this evidence, this work focused on the three main forms with which dysfunctional interactions among nurses can occur: lateral violence, bullying and workplace incivility.

Lateral violence is as a subset of the global concept of 'workplace violence' (2), as well as bullying.

Since clear definitions and classifications of these antisocial behaviours at workplace are still lacking and

sometimes debatable, epidemiologic comparisons between these issues can be problematic.

The most common manifestation of lateral violence is the psychological harassment resulting in hostility, as opposed to physical aggression.

These harassments include: verbal abuses, threats, humiliations, intimidations, criticism, innuendo, social and professional exclusion, discouragement, disinterest, and denied access to information (3).

Vice versa bullying has been described as an enduring offensive and insulting behaviour worsened by an intimidating, malicious, and insulting pattern (4).

This specific type of harassment amounts to power-abuse, while the victims experience feelings of humiliation, menace, vulnerability and distress (4).

A further distinction between bullying and lateral violence refers to their frequency of occurrence. Lateral violence can be isolated and sporadic while bullying is displayed when the negative acts are repeated weekly or more often, for six or more months (5).

In literature, many labels have been used to define workplace's bullying. In Europe, the most common term for bullying is 'mobbing' (6).

The antecedents of these workplace's deviant behaviours are related with a professional incivility attitude, described as deterioration in the workplace relationships among peers. For example: to leave a paper jammed printer unfixed, withholding important information, unauthorised use of victims' personal items and, social exclusion.

Workplace incivility differs from (physical or verbal) workplace violence for its ambiguity in the intent to damage the victim (7). Therefore, workplace violence is displayed as soon as the intent of negative behaviours becomes clearly to harm the person (7).

The aim of this review is to highlight the extent of workplace incivility, lateral violence and bullying among nurses. Moreover, their related factors and the theoretical basis of their genesis are showed.

Methods

We performed a review of the available literature according to the following PECO: Population-Exposure-Comparison-Outcome.

'Population' is related to the nurse professional category. 'Exposure' is defined as experiencing incivility, lateral violence and, bullying. 'Comparison' is the act to evaluate the exposed and non-exposed subjects. 'Outcome' represents the negative collateral effects in private and professional lives of the targets.

Three different biomedical databases were investigated: Medline, CINAHL and Embase.

The keywords used for the research of papers were: "incivility", "nursing", "hostility", "bullying", "mobbing", "lateral", "horizontal", "violence".

The inclusion criteria settled for the research were: English-Italian language and human being subjects. None limitation of time was applied.

Google Search (provided by Google©) was also used in the process of gathering information, as an adjunct to the three databases explored (8).

The exclusion criteria were: studies on workplace violence against students and inside the academic settings, qualitative research studies, and all the secondary literature.

After the preliminary removal of double records and non-pertinent abstracts, we retrieved all the full-text articles matching the inclusion criteria (quantitative research studies, original mixed methods studies, systematic reviews and meta-analysis).

After the screening, seventy-nine original papers were selected.

Results

Workplace incivility: prevalence and related factors

The number of papers focused on workplace incivility among nurses was 16 (Table 1).

Most of these original studies have been carried out in Canada and a minority in the USA.

Workplace incivility point prevalence and period prevalence are seldom investigated within the studies. Published studies mainly reported average values of specific scores as the Workplace Incivility Scale tool.

However, when reported, the overall percentage of workplace incivility still remains remarkable: between 67.5% (9), and 90.4% (10). Furthermore, workplace incivility among peers, account for values higher than 75% (9, 10).

Table 1. Workplace incivility among nurses. Prevalence and consequences

			disorders	
Ceravolo et al. (2012) (16)	4000 nurses and 1100 nurse students in 5 U.S. hospitals. Respondents to the 1st survey: 703 (34%) to the 2nd survey 485 (23%) (4 yrs after).	Verbal abuse recorded in the 1st survey: 90% (n. 634); 2nd survey: 70% (n. 370).	NR	Turnover and vacant job positions: 8.9% in the 1st survey; in the 2nd survey, 6% and 3%, respectively.
Elmblad et al. (2014) (17)	1700 certified CRNAs in Michigan (USA). Respondents to the survey: 385 (22.6%).	NR. The mean composite score of WI from all professionals was 63.5 (median of 65.0). WI mean score from peers was 51.3 (median of 50.0).	NR	A linear correlation exists between WI and professional burnout in CBI (p<0.0001).
Hutton & Gates (2008) (11)	145 nurses and 33 nurses assistants in a U.S. hospital.	Mean WI frequency was 2.13 (SD=0.50), to be intended for slightly over "rarely".	No correlations between WI and respondents' demographics.	The mean cost for reduction of annual productivity in nurses assistants was $1235.14, whilst in nurses was $1484.03 WI from immediate superiors and patients correlated with productivity (r=0.284, p=0.000 e r=0.204, p=0.006, respectively). WI coming from other direct care factors did not correlate with productivity.
Laschinger et al. (2014) (*15)	3600 Canadian nurses. Respondents to the survey: 1241 (35%).	NR. Only average scores from the scales used for the study.	NR	WI from peers correlated with the global empowerment (r= -0.25), the emotive exhaustion (r=0.23), and the work satisfaction (r=0.20).
Leiter et al. (2010) (13)	522 Canadian nurses.	There were no statistically significant differences in mean levels of WI from peers between the "Baby boomers" and the "X generation"	WI among peers correlated with physical symptoms (r=0.17).	WI correlated with turnover intention (r=0.19), emotive exhaustion (r=0.25), and cynism (r=0.33).

(continued)

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Author (year)	Sample/Settings	Prevalence	Related factors	Psychophysical disorders	Professional impact
Lewis et al. (2011) [21]	2160 U.S. nurses. Respondents to the survey: 164 (8%), with other professional, determining 659 respondents as total.	553 (84.8%).	The nurse managers' awareness of WI was a predictive factor for the ability to manage the WI (z=23.896; p<0.001). ICUs and medical-surgical wards showed less WI scores than ORs and EDs (p<0.001).	NR	No statistical significant differences in the loss of productivity between real work environments and healthy work environments. However, there was a negative correlation between WI and productivity.
Oyeleye et al. (2013) [12]	400 nurses from 2 U.S. community hospitals and one tertiary hospital. Respondents to the survey: 61 (15%).	NR. Only average scores from the scales used for the study.	Total length of service (yrs) correlated with WI (p=0.007).	NR	WI correlated with turnover intention (p<0.0001), stress (p=0.001), and burnout (p=0.005).
Shy et al. (2018) [18]	903 registered nurses in China were invited. Ultimately, 696 new nurses (<3 service years) completed valid questionnaires. The effective response rate was 77.1	Workplace Incivility: (range 1-5) mean 1.89 (SD±0.53)	WI has a positive prediction function to generate anxiety (β=0.364, p<0.01) and job burn-out (β=0.240, p<0.01) of new nurses. Anxiety also had a positive influence on job burn-out (β=0.405, p<0.01), Moreover, the influence of the interaction between WI and resilience on job burn-out was significant (β=−0.564, p<0.01). It showed that resilience moderated the relationship between incivility and anxiety and job burn-out, and anxiety partially mediates the relationship between WI and job burn-out	NR	This model suggests that nursing managers should pay attention to the growth and development of new nurses in the practice of nursing management, improving the resilience of new nurses and reducing their anxiety. This will help to reduce job burn-out of new nurses, thereby promoting the work efficiency and saving management cost.
Slem & Seada (2017) [20]	100 Staff Nurses (Mansura University Hospital, Egypt	Workplace incivility mean 72.48 (SD±23.95) Gossiping (rank 2); Exclusion (rank 1); Hostility (rank 3);	A significant correlation was found between workplace civility climate and total score of incivility (r=.24 p=0.001**). And between intolerance for	NR	Highest percentage (59 %) of studied nurses never experienced hostility behaviours. While low

(continued)

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Author (year)	Sample/Settings	Prevalence	Related factors	Psychophysical disorders	Professional impact
		Invasion of privacy (rank 4)	incivility subscale and total score of work place incivility behavior (r=0.28, p=0.00*).		percentage (2%) of them perceived that they subjected to exclusion behaviours every day.
Smith et al. (2010) (10)	250 nurses (Ontario, Canada). Respondents to the survey: 117 (51%).	90.4% of respondents reported WI from peers.	NR	NR	WI was an independent predictive factor of commitment to work (β=-0.189, t=-2.01, p=0.047).
Spence Laschinger et al. (2009) (*9)	1106 workers in healthcare system, among which, 612 nurses (Ontario, Canada).	77.6% of nurses experienced WI from peers; 67.5% experienced WI from supervisors	NR	NR	WI was a predictive factor for turnover intention (8.5%, P<0.001).
Spence Laschinger et al. (2009) (**22)	245 neo-graduate nurses (Ontario, Canada).	Workplace civility (range 1-5): mean 3.67 (SD±0.88). Conflict among nurses (range 1-5): mean 2.39 (DS±1.09).	NR	NR	Workplace civility was a significant predictive factor for emotive exhaustion (β=-0.18, p=0.003). Emotive exhaustion (sub-scale of Maslach Burnout Inventory-General Survey); there is burnout if the score is >3: the respondents showed a mean of 3.43 (DS±1.38).
Spence Laschinger et al. (2012) (23)	755 nurses responded to the 1st survey, and 573 to the 2nd survey, performed in 32 hospital wards in Nova Scotia, and in 19 wards in Ontario (Canada).	WI (range 1-5): mean level reported were 0.61(SD±0.71) and 0.85 (SD±0.86).	NR	NR	NR
Laschinger et al. (2013) (24)	833 neo-graduate nurses (Ontario, Canada). 272 respondents to the survey.	WI (range 1-5): mean 1.7 (SD±0.73); 12% reported daily episodes of WI from peers.	NR	The episodes of WI correlated with low levels of mental health, i.e. rage, fear and sadness (r=0.36, p< 0.05). High levels of	NR

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				resilience were associated to reduced WI from peers (B=-0.19), and less mental health disorders (B=-0.31).	
Wing et al. (2013) (25)	1400 neo-graduate nurses (Ontario, Canada); 546 (39%) respondents to the survey.	NR	NR	NR	Empowerment correlated with WI (β=-0.286; p<0.001), general health symptoms (β=-0.221, p<0.001), and mental health symptoms (β=0.307, p<0.001).
Zia ud-Din (2017) (19)	184 medical nurses working in healthcare organization in Faisalabad City (Pakistan)	Workplace incivility: mean 48.91 (SD±5.32)	There is a relation between WI and employee absenteeism. The independent variable (WI) R value is 0.447 and R square 0.200, β value 0.058, SE value 0.011. The organization commitment is moderate between these two variables. Data shows that Workplace incivility R value is 0.447 and R square 0.200, β value 0.058, SE value 0.011. Moderate variable organization commitment which one type is OACO (Organization Affective Commitment) is strong regress to dependent and independent variable R value 0.680, R square value 0.462, β value 0.813, SE value 0.087. Second type of moderate variable OCCO (Organization continuance commitment) is less regress from affective commitment, R value 0.653, R square value 0.426, β	NR	Absenteeism which is seen as work behaviour should be checked and controlled since it can lead to more serious conflicts. To achieve this, absence policy should be put in place by organizations to check and control employee wilful absences.

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Author (year)	Sample/Settings	Prevalence	Related factors	Psychophysical disorders	Professional impact
			value 0.527, SE value 0.062. Lastly, third type of moderate variable is ONCO (Organization Normative Commitment), also less regress from affective and continuance commitment R value is 0.616, R square 0.379, Coefficient 0.525, SE value 0.073.		

Legend: CBI – Copenhagen Burnout Inventory; CRNA - Certified Registered Nurse Anaesthetist; ED – Emergency Department; ICU – Intensive Care Unit; NR – Not Reported; OACO: Organization Affective Commitment; OCCO: Organization Continuance Commitment; ONCO: Organization Normative Commitment); OR – Operating Room; Pt. – Patient; SD – Standard Deviation; WI – Workplace Incivility;

According to the available data, there are no correlations of workplace incivility with specific demographic features (11), except for the total years of nursing job's experience (p=0.007) as reported by Oyeleye et al. (12).

Concerning emotional and physical side effects, there is a weak correlation between workplace incivility among peers and physical symptoms (13).

Laschinger et al., highlighted how a strong resilience attitude was related with less presence of incivility among colleagues (B=-0.19), and less symptoms of mental discomfort (B=-0.31) (14).

Workplace incivility have a significative correlation with professional burnout (p<0.0001) (17), emotional exhaustion (r=0.25), cynicism (r=0.33) (12) and poor job's satisfaction (r=-0.20) (15).

Several studies also related workplace incivility with the request of turnover (8.9%) (16) and turnover intentions (9, 12, 13), and with nurses' job commitment, especially if the workplace incivility arose from patients or superiors (11).

Shi el al. (18) found that workplace incivility was positively related to anxiety (r=0.371, p<0.01) and job burn-out (r=0.238, p<0.01). On the contrary, workplace incivility was negatively related to resilience (r=–0.191, p<0.01) and has a positive prediction function to generate anxiety (β=0.364, p<0.01, M2) and job burn-out (β=0.240, p<0.01, M5) of new nurses. The resilience moderated the relationship between workplace incivility and job burn-out.

Zia-ud-Din Arif & Shabbir (19) found a significant relationship between workplace incivility and employee absenteeism (β=0.058, SE value 0.011), but with varying degrees to the facts of employee absenteeism. Among absenteeism, withdrawal behaviours was found to be the most prevalent practice of nurses as response to incivility. Organization commitment was negatively correlated with employee absenteeism and workplace incivility. The relationship was found to be negative between organization commitment and workplace incivility.

Slem & Seada (20) revealed a statistical significant negative correlation between workplace civility climate and total score of incivility behaviour while there was no significant correlation between group norms and workplace incivility behaviours among staff nurses. Find-

ings suggest that perceived workplace civility climate can play a role in the incidence of incivility behaviours among staff nurses, while group norms for civility is not a predictor of occurrence of incivility behaviours.

Lateral violence: prevalence and related factors

The number of papers on lateral violence matching the inclusion criteria was 25. This topic, compared to the previous one, seems to be more globally widespread than just the Northern America area. In fact, there is a greater variability in its prevalence, according to the studies reported (Table 2).

The prevalence range is wide: from the 1% of Armmer & Ball (26), up to 87.4% described by Dunn on a population of operating room (OR) nurses (both from USA) (27). The European area shows a lower range of lateral violence (1.3%-5.3%), as recorded by the NEXT study (28).

Similar findings were reported from Italy, by Magnavita et al., showing a 9.9% of non-physical aggressions from colleagues (29).

Some exceptions were represented by a Spanish study (74.2%) (30) and two recent Italian surveys performed in Emergency and Intensive Care Unit (ICU) settings, showing values of 81.6% (31) and 79.1% (32), respectively.

Morrison et al. (49), in Jamaica, found that exposure to lateral violence was reported by 96% of participants, and 3/4 rated the exposure as moderate to severe. Lateral violence created a hostile environment, and the behaviours in response to lateral violence among nurses included professional disengagement, retaliation, avoidance and intent to resign, as indicated by half of the nurses surveyed. The Nurse Managers were the main perpetrators of lateral violence (63%). The pervasiveness of lateral violence among the nurses studied indicates the need to implement appropriate workplace violence policies.

Ayakdaş & Arslantaş (50), in Turkey, found that 47% (n=366) of nurses had suffered lateral violence and the 80.1% encountered mobbing behaviors, including humiliation and degradation. The reasons for colleague violence reported were: for the 10.3% the jealousy, for the 10.1% to have higher level of education, for the 8.2% the rivalry, for the 4.6% to be a beginner in the

clinic, for the 4.3% the workload and the patient density, for the 3.8% the differences in political views, and for 3.2% the physical appearance.

Identification of specific services or units at high-risk of lateral violence can be difficult due to the broad variability inside the explored settings, confirming that lateral violence is firstly a "cultural problem" in nursing profession (33).

According to the NEXT study, intensive care units and operating rooms were the most affected areas by lateral violence (7.4%), followed by the elderly care units (7.0%) (28). In addition, an Italian survey showed the ORs as the most exposed environments to lateral violence (32).

As opposed, data collected in South Africa have identified obstetrics wards as the most affected service (40%) (34).

Finally, a survey from Purpora & Beglen (2015) pointed out that ICUs and surgical wards were the most affected by lateral violence (35).

Overall, gender, age, seniority and nursing education are not related factors of lateral violence among nurses in clinical settings (27, 31, 32, 36, 37).

The only exception is from the study of Sellers et al. (38). The authors have shown higher lateral violence rates among the senior versus junior nurses (p<0.05), as well as female versus male (p<0.05) (38).

Nurses working with daily shift are the most affected by lateral violence (28, 31).

Natural tendency for selfishness (β=0.13) and not yet specified peculiar work environment (β=0.13), both represent antecedents for work related bullying (39).

Nurses involved in lateral violence experience reported psycho-physical consequences on a range from 3.2% (29) to 65.2% (31). The symptoms' description is summarized in Table 5.

Mild negative correlations exist between lateral violence and quality of patients care (r=-0.469; p<0.01), plus errors and adverse events (r=0.442; p<0.01) (35).

Authors reported that variable percentages of nurses victimized by lateral violence performed their duties not matching the minimum safety requirements. Some examples are: drugs administration with unclear prescription, lifting patients without support and using medical devices without asking for supervision (40).

Furthermore, there is a significant positive corre-

Table 2. Lateral violence among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical disorders	Professional impact
Alspach G. (2008) (43)	96 U.S. nurses	NR. Virtually 100% (the survey started just asking about the experienced LV).	NR	NR	NR
Armmer & Ball (2015) (26)	300 nurses, Michigan (USA). Respondents to the survey: 104 (36%).	1% - 80.8%.	NR	NR	LV correlated with the intention to leave the job (r=0.214, p<0.05).
Ayakdaş & Arslantaş (2018) (50)	779 nurses (336 from a university hospital, 243 from a training and research hospital in Izmir province; 170 from a state hospital in Aydin province, Turkey)	47% (n=366) of the nurses reported at least one colleague psychological violence; the 80.1% encountered mobbing behaviours, the most including humiliation and degradation. The 42.1% (n=154) reported that they were being subjected to violence for less than 1 year	10.3% (n=38), 10.1% (n=37), 8.2% (n=30), 4.6% (n=17), 4.3% (n=15), 3.8% (n=14), and 3.2% (n=12) reported the reasons for colleague violence as jealousy, having a higher level of education, rivalry, being a beginner in the clinic, workload and patient density, differences in political views and physical appearance.	NR	The first three effects on nurses exposed to psychological violence from colleagues at work are that: 85.5% of the participant nurses deeply felt sorry when they remembered the behaviour, 81.7% repeatedly recalled the behaviour, and 81.1% felt stressed and tired.
Bambi et al. (2013) (31)	444 nurses (EDs and ICUs) from 5 Tuscan hospitals (Italy). Respondents to the survey: 360 (81%).	294 (81.6%).	LV were more frequent in ED rather than ICU (90% and 77.2%, respectively); p=0.0038). Day-shift nurses experienced more LV than night-shift nurses (93% vs 78.4%; p=0.0019).	235 nurses (65.2%) reported at least one symptom related to LV.	17.7% asked for changes in ward assignation. Only 6.9% really changed their ward of assignation in the last 12 months. 6.9% expressed the desire to leave the nursing career. The claim to swap unit was associated with presence of symptoms related to LV (13% vs 5%; p=0.039).
Bambi et al. (2014) (32)	1504 Italian nurses from Critical Care Units Emergency and Department and Out of	951 (79.1%) experienced LV. 269 (22.4%) experienced	There were no statistical significant differences between LV and demographics, even if nurses in Southern Italy seem to be more	829 (69%) reported symptoms related to LV	136 (11.3%) nurses asked for change in ward of assignation, only 43 (3.6%) really changed their ward of assignation in

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Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical disorders	Professional impact
	Hospital Emergency Service Emergency and Operating Room. Respondents to the survey: 1202 (79.9%).	lateral bullying.	victimized compared to others (88.5%, χ^2=5.887, p=0.0527).		the last 12 months. Head nurses changed ward of assignation more than the other nursing roles (7.3%; χ^2=6.233, p<0.05). Similar findings were recorded in victims of lateral bullying (8.5% and 2.1%, respectively; χ^2=23.022, p < 0.01).
Camerino et al. (2008) (28)	34.107 nurses from 567 healthcare institutions in 8 European countries. Respondents to the survey: 55.1%.	Range from Holland (50; 1.3%) to Poland (530; 12.3%).	LV occurred mainly in ICU and OR (7.4%), long-term geriatric unit (7.0%), medical surgical wards (6.2%). LV victimized foreign nurses in 6.4%, versus native nurses (5.4%); head of nurses (6.6%); nurses (5.2%); day-shift nurses (6.4%), night-shift nurses (5.8%).	NR	NR
Dumont et al. (2012) (37)	955 U.S. nurses.	82% (n. 778) was victim of LV or witnessed LV, on a daily or weekly basis.	No correlation was found between the effects of LV and length of service. A weak correlation between LV prevalence and length of service. Male respondents showed more effects of LV than females (84%, vs 63%, respectively, p=0.003). LV was less frequent among junior nurses, but the PhD graduates seemed the most victimized (despite their respondents' number was low).	Insomnia, headache, abdominal pain, demoralization due to absence of feedback.	LV not mentioned for fear of retaliations; afraid to questioning for possible mockery; unpleasant feelings about the job due to the relationships with peers.
Dunn H. (2003) (27)	500 OR nurses in New Jersey (USA). Respondents to the survey: 145 (29%).	125 (87.4%).	No statistical significant differences between the role of victims/perpetrators of LV and demographics	NR	NR
Griffin M. (2004) (42)	26 U.S. newly qualified nurses.	12 (47%).	NR	NR	NR

Table 2. Lateral violence among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical disorders	Professional impact
Khalil D. (2009) (34)	471 nurses from Cape Town (South Africa).	29%.	LV occurred: 40% in obstetrics, 32% in general wards, and 20% in psychiatric units.	NR	NR
Magnavita et al. (2011) (29)	275 nurses from a general hospital (Italy).	9 nurses (9.9%) reported non-physical aggressions by colleagues.	NR	Fear - 13 (13.8%), rage - 9 (9.6%), irritation - 42 (44.7%), anxiety - 19 (20.2%), humiliation - 8 (8.2%), to feel guilty - 3 (3.2%), annoyance - 27 (28.7%), sensation of lack of help - 12 (12.8%), desire of revenge - 10 (10.5%), believe the others are wrong - 11 (11.6%).	Intent to change the job's career - 29 (30.5%); thinking to modify personal behaviour 18 (18.9%).
McKenna et al. (2003) (3)	1159 nurses from New Zealand. Respondents to the survey: 551 (47%).	188 (34%); 170 (31%) reported major levels of distress from the incidents. The perpetrators are nurses, with different roles and job positions	NR	Reduced self-esteem, fear, frustration, sadness, irritability, headache, depression, loss of weight, fatigue. Rare cases of increased self-confidence, and load of energy.	24/170 (14%) reported absence from workplace, 58/170 (34%) planning to leave the nursing profession.
Morrison et al. (2017) (49)	114 registered nurses of a Kingstone of Hospital (Jamaica) The response rate was 93% (n= 107).	Exposure to LV was reported by 96% of participants, and 3/4 rated the exposure as moderate to severe. Nurse Managers were the main perpetrators of LV (63%).	NR	NR	The behaviour in response to LV among the nurses included professional disengagement, retaliation, avoidance and intent to resign.
Oh et al. (2016) (39)	255 nurses from 4 university hospitals in South Korea.	NR. Only mean values of LV and bullying scales are reported.	Negative affectivity is statistically significant predictor for all the subsets of workplace bullying. Significant antecedents of work related bullying are individualism (β=0.13), and special work-settings (β=0.13). Verbal abuse predictors were: weekly working hours ≥41, type of hospital, and negative	NR	NR

Table 2. Lateral violence among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical disorders	Professional impact
			affectivity (adjusted R^2=0.17, F=3.64).		
Purpora et al. (2012) (36)	215 nurses from California (USA). Respondents to the survey: 175.	37 (21%).	Gender, nursing basic education program, and length of service were not predictors of LV. ICUs experienced more LV than other wards.	NR	NR
Purpora & Blegen (2015) (41)	1278 U.S. nurses. Respondents to the survey: 175 (13.8%).	NR	There was a negative correlation between LV and relationships among peers (r=-0.641; p<0.01).	NR	LV was negatively related to the job satisfaction levels (r=-0.466; p<0.01). LV negatively affect the job satisfaction: ß=-0.462 (F(1,172)=46.63, p<0.001). LV negatively affect the relationship among peers: ß=-0.641 (F(1,172)=119.92, p < 0.001).
Purpora & Blegen (2015) (**35)	234 nurses from California (USA). Respondents to the survey: 175 (18.8%).	139 (79.4); 37 (21.1%) nurses reported daily or weekly LV frequency.	LV was more frequent outside ICUs and medical-surgical areas (p<0.05), and for nurses without a certified university education program (p<0.05). There was a negative correlation between LV and relationship among peers (r=-0.640; p<0.01). LV was a predictor for reduction of relationships among peers. LV negatively correlated to patients' quality of care (r=-0.469; p<0.01). LV was a predictor of poor quality of care. LV was related to errors and adverse events (r=0.442; p<0.01). LV was a predictor of errors and adverse events.	NR	NR

(continued)

Table 2. Lateral violence among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical disorders	Professional impact
Reynolds et al. (2014) (44)	63 nurses from a perinatal service in a Californian hospital (USA). Respondents to the survey: 62.	LV among nurses was larger than other professional categories.	The total score of hostilities was higher in association with reported patients' negative outcomes (mean=47.50, SD=8.73) unlike who did not report negative outcomes (p=38.45, DS=12.27, t(58)=2.40, p=0.02).	NR	NR
Sellers et al. (2009) (45)	108 nurses, New York (USA).	24.3%-29.4%.	NR	NR	NR
Sellers et al. (2012) (38)	2659 nurses from hospitals of New York (USA). Respondents to the survey: NR.	NR	LV frequency appears higher for experienced nurses (p<0.05), and in female nurses groups (p<0.05).	NR	NR
Stanley et al. (2007) (46)	1850 nurses and nurses assistants (USA). Respondents to the survey: 601 nurses (91%).	46% of respondents reported high levels of LV. 65% reported LV from peers.	LV were more frequent in medical and surgical wards.	NR	NR
Topa & Moriano (2013) (30)	388 nurses from 2 Spanish hospitals.	74.2%	LV was associated to work-related stress (r=0.34, p<0.01), team support (r=-0.38) and team-identity (r=-0.40). Linear regression showed that LV and work-related stress were positively associated (ß=0.23, p<0.01), while LV was negatively associated to team support and team identity (ß=0.14, p<0.05 e ß=0.22, p<0.01, respectively).	NR	NR
Walrafen et al. (2012) (47)	227 nurses (USA).	19.9%-53.3%; 28.4%-77% witnessed LV	NR	NR	NR

Table 2. Lateral violence among nurses. Prevalence and consequences

Study	Sample	Prevalence (episodes towards other people)			Consequences
Wilson et al. (2011) (48)	130 (26%) nurses respondent to the survey, from a community hospital in USA.	105 (85%) observed LV towards others or themselves in the last 6 months.	NR	NR	23 (19%) decided to leave their current job position.
Wilson & Phelps (2013) (40)	500 nurses from a U.S. hospital. Respondents to the survey: 130 (26%).	78 (60%) witnessed presence of LV.	NR	NR	The main effects on patients' safety were: 30 (13%) drugs administration by nurses despite unclear prescriptions, without asking for clarifications; 11 (25.6%) performing obese patients' mobilization without asking for help; 5 (10%) nurses used unfamiliar medical equipment without supervision.

ED: Emergency Department; ICU: Intensive Care Unit; LV: Lateral Violence; NR: Not Reported; OR: Operating Room; Pt: Patient; SD: Standard Deviation; US: United States; USA: United States of America

lation between lateral violence and work-related stress (β=0.23, p< 0.01) (30).

In addition of these data, lateral violence exerts a negative impact on job's satisfaction (β=-0.462; F (1,172)=46.63, p<0.001) (41).

At last, literature pointed out the link between lateral violence and the intent to quit from nursing career (r=0.214, p<0.05) (26). A range from 11.3% (31) to 30.5% (29) of nurses victimized, decided to resign from their position. From 6.9% (31) up to 34% (3) of the targets even consider quitting the profession.

Nurses that have witnessed lateral violence report and share the experience with other people up to 58% (40) of the episodes (recipients are line managers, peers, friends, relatives…).

On the contrary, a direct facing with the aggressor appears to have a broad range of percentage: from 17.3% (36) to 100% (42).

Bullying. Prevalence and related factors

The number of papers focused on bullying among nurses was 38 (Table 3).

The prevalence reported also for this topic is widely variable, from 2.4% (51) to 81% (52).

Unlike the lateral violence, the variability of prevalence recorded in the studies on bullying, is mainly connected to its operational definition, then to studied settings and instruments used to record this phenomenon.

Bullying (as lateral violence) is not related to specific demographic factors, levels of education and nurses' job position (5, 53).

Exceptions are given by data retrieved from Pakistan (54) and Iran (55).

Findings have shown that female nurses are significantly more prone to experience abuses, if compared to the male colleagues (56).

In Turkey, Yildirim (58) and Çevik Akyil et al. (59), have identified the younger age as a main risk factor for bullying in nursing profession (58). In a study conducted in Neonatal Intensive Care Units in Greece, the female professionals and those with a job experience ranging from 5 to 10 years were more exposed to bullying (57).

Vessey et al. showed that a length of service of less than five years was a risk factor for bullying (76). A

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
Abe & Henly (2010) (52)	881 nurses from 19 hospitals in Tokyo (Japan).	81%.	NR	NR	NR
Aksakal et al. (2015) (78)	650 nurses from a university hospital in Turkey. Respondents to the survey: 538 (82.7%).	88 (17.1%).	NR	Victims of bullying showed higher anxiety score in comparison with those were not victimised, despite clinically speaking, it was not significant. (2.78, vs 2.18, p=0.001).	Nurses not bullied have showed higher level of job satisfaction when compared to the bullying's victims (72.1% and 47.2% respectively) (p=0.0001); victimised nurses reported stronger intention to change job rather than not-victimized nurses (73% vs 57.2%, respectively, p=0.005). These findings are also confirmed by willingness to leave the nursing profession (81.2% vs 67.2, respectively, p=0.011). 3 nurses moved to another job.
Allen et al. (2015) (60)	762 Australian nurses.	61% reported at least 2 episodes of bullying in the last 12 months.	Bullying was correlated with the weekly number of work hours (r=0.11, p<0.05).	NR	Bullying and burnout syndrome were positively related (r=0.38, p<0.001); bullying was a predictor of burnout (β=0.37, p<0.001).
Arcangeli et al. (2014) (66)	206 nurses from 3 hospitals in central and north Italy.	21.4%. None mention of bullying perpetrated by peers.	NR	The total score of NAQ-R showed correlation with loss of safety (r=0.38, p<0.05), social consequences (r=0.30, p<0.05), anxiety and depression (r=0.37, p<0.05), and a score of General Health Questionnaire 12 (r=0.40, p<0.05).	NR
Berry et al. (2012)	5000 nurses in 3 states	43 (21.3%) nurses were	NR	NR	There was a negative

(continued)

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
(72)	of USA. Respondents to the survey: 197 (3%).	exposed to bullying on a daily basis; 36 (18.2%) nurses were exposed more times in a week.			correlation between bullying and work productivity (F=0.045, r=-0.322, p<0.01).
Bortoluzzi et al. (2014) (61)	238 nurses from Italy. Respondents to the survey: 175 (73.5%).	59 (34%) nurses were at risk of bullying.	Predictive factor for bullying was the participative leadership (β=-1.035, p<0.05) with a lack of human resources (β=-1.845, p<0.005).	NR	NR
Chatzioannidis et al. (2018) (57)	398 healthcare professionals (doctors, nurses) working Neonatal intensive care units in Greece	53.5% exposed to bullying; 53.1% doctors and 53.6% nurses	Female significantly more exposed to bullying (56.4%vs36%, p=0.009); professionals with 5-10 years of job experience significantly more exposed to bullying (p=0.048)	Lower level of psychological health status for employees being bullied (12.9±5.7 vs 8.5±4.6, respectively, P<0.001)	NR
Çevik Akyil et al. (2012) (59)	256 nurses from a university hospital in Turkey. Respondents to the survey: 180 (70.3%).	NR, the mean score of bullying perception reflects how nurses were often exposed (mean 155.51, SD ± 14.956). 94 (58.9%) nurses suffered bullying acts by direct supervisor, 4 (2.4%) were bullied by peers instead.	Bullying is more perceived by nurses with the following features: age 18–25 years (mean=160.16, SD=± 14.858), married (media=161.62 ± 14.226), absence of university certifications (mean=160.55, SD=± 9.220), worked in a clinical settings (mean=156.56, SD=± 14.872), professional experience < 1 year (media=159.44 ± 13.846), length of service in the current workplace < 1 year (mean = 160.97, SD=± 12.731), length of service in the current workplace ≥10 years (mean=162.15, SD=± 8.338), and caring for ≥ 30 pts in a day (mean=167.33, SD=± 16.388) (p < 0.05).	NR	NR
Chen et al. (2008) (62)	231 nurses and nurses assistants in a psychiatric hospital in	15.8%; In 11.4% of cases, the perpetrator was a staff	Higher than moderate levels of anxiety increased the probability of verbal abuses	PTSD score > 14 for the 17.6%.	NR

(continued)

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
	Taiwan. Respondents to the survey: 222.	member.	(adjusted OR 4.3, CI95%: 1.5-11.8), and so the length of service: <5 years, > 20 years.	NR	NR
Chen et al. (2009) (79)	157 nurses in a psychiatric hospital in Taiwan. Respondents to the survey: 87%.	Incidence in period of 2 years: 33 cases (3.1%).	NR	NR	NR
Hesketh et al. (2003) (80)	12332 Nurses from Alberta (Canada's province). Respondents to the survey: 6526 (52.8%).	56% of emotional abuses was perpetrated by peers.	Emotional abuses were reported by the 25.5 % of ICU nurses, 10.5% by medical-surgical wards nurses, 8.1% by ED nurses, and 13.4% from nurses from other services.	NR	NR
Kivimäki et al. (2000) (73)	Hospital employees, 647 male and 4981 female (Finland).	302 (5%).	The absences from work bullying-related were not dependent to the demographic.	Bullied victims were more prone to experience chronic illnesses and had a BMI slightly higher than the not-victims.	Certified absences for illness and self-certified absences were 1.5 (CI 95%:1.3-1.7) and 1.2 (CI 95%: 1.1-1.4) times higher than the rest of staff
Kwok et al. (2006) (77)	1650 nurses in a hospital of Hong Kong. Respondents to the survey: 420 (25%).	Verbal abuse: 73%; bullying between 40% and 50%. The nurses were the most frequent perpetrators after pts. and relatives.	The settings most affected by bullying were: ED, community nursing services, traumatology and orthopaedic department.	Bullying was positively associated to depression (r=0.51; p<0.001). Depression was determined by bullying and workloads (β=0.54; F=56.61; P < 0.001).	Bullying was associated with commitment to the job (r=0.49; p <0.001), concentration on the work (r=0.48; p<0.001), productivity (r=0.46; p<0.001), motivation (r=0.44; p<0.001), relationship with patient (r=0.42; p<0.00), manager (r=0.47; p<0.001) and colleagues (r=0.45; p< 0.001).
Jaradat & Niensen (2018) (65)	341 Palestinan Nurses	27.3% exposed to workplace aggression in the previous 12 months	NR	Females exposed to workplace aggression (adjusted mean difference 1.5, 95% CI 0.3, 2.7, R²=0.05) and verbal aggression (adjusted mean	NR

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
				difference 1.4, 95% CI 0.2, 2.6, R²=0.04) reported higher psychosomatic symptoms than unexposed. Males exposed to bullying reported higher psychosomatic symptoms than unexposed (adjusted mean difference 3.2, 95% CI 1.0, 5.5, R²=0.09).	
Johnson & Rea (2009) (5)	767 nurses member of the Emergency Nurses Association in Washington (USA). Respondents to the survey: 249 (32.5%).	68 (27.3%). 17 nurses (38%) reported to be bullied by peers.	No correlation was found with demographics, education level, and job position.	NR	Victims of bullying showed intention to leave their current job at least 2 times more frequent than not- victimised nurses (p<0.001); victims of bullying reported a possible intention to leave nursing profession in the next 2 years 3 times more often than not-bullied nurses (p<0.001).
Hutchinson et al. (2010) (6)	5000 nurses from private and public healthcare institutions. Respondents to the survey: 370.	NR	3 organizational factors promoting bullying: informal alliances, tolerance, and rewards in organization, negative use of legitim authority, processes and procedures.	NR	NR
Korhan et al. (2014) (81)	282 nurses from 3 private and public hospitals in Turkey.	53.2%. 46.7% of respondents experienced bullying during the 1ˢᵗ year of work. 48% of cases was lateral bullying.	NR	NR	NR
Laschinger HK.	641 nurses from	NR	NR	NR	Bullying was related to

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
(2014) (**74)	hospitals in Ontario (Canada). Respondents to the survey: 336 (52%).	Only mean values of scales used in the study were reported.			nosocomial infections ($r=0.18$), perceived risk for pts ($r=0.33$), relatives' complaints ($r=0.26$), total amount of adverse events ($r=0.23$). Bullying was negatively related to the quality of care ($r=-0.23$).
Laschinger et al. (2010) (70)	415 nurses with length of service < 3 years in Ontario (Canada).	33% of the newly qualified nurses were bullied.	All the bullying aspects measured with NAQ-R were statistically significant in relation with the aspects of burnout syndrome measured through MBI.	NR	NAQ-R work-related bullying correlated with MBI-GS exhaustion subscale ($r=0.53$; $p<0.01$); total of NAQ-R was related to MBI-GS cynism subscale ($r= 0.53$, $p<0.01$).
Linton & Power (2013) (53)	224 university students (Canada).	37.5%.	No statistical significant differences in between males and females victims of bullying. To be victims and contemporary perpetrators of bullying were 2 conditions strongly associated. The most of characteristics of bully (machiavellianism, narcissism, psychoticism) and measures of aggression are associated with bullying's experience as a victim.	NR	NR
Pai & Lee (2011) (63)	700 nurses from Taiwan. Respondents to the survey: 521 (74.4%).	261 (51.4%) nurses reported psychological violence; 155 (29.8%) nurses experienced bullying, and 67 (12.9%) sexual harassment. Peers and supervisor were at the 3rd place (after pts and relatives) in the frequency of perpetrators' role.	Age < 30 years (OR= 2.4; CI 95%=1.34 – 4.46) and high level of anxiety (OR =4.7; IC 95% = 1.09–6.93) were associated to verbal violence.	32.3% of nurses experienced variable levels of anxiety; 1/4 of the victims reported symptoms of PTSD.	NR

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
Pai et al. (2018) (56)	269 healthcare professionals in Southern Brazil	15.2% physical violence; 48.7% psychological violence; 24.9% moral harassment; 8.7% racial discrimination ; 2.5% sexual harassment	Females more exposed to physical violence (19.7% vs 9.8%, p=0.027) moral harassment (32.5% vs 16.1%, p=0.002) racial discrimination (12.1% vs 4.5%, p=0.030) Nurse technicians, compared to nurses and physicians, were more exposed to physical violence (p=0.001) and moral harassment (p=0.015)	NR	NR
Pinar et al. (2015) (51)	4343 nurse and obstetrics in Turkey.	91 (2.4%) respondents experienced bullying; verbal abuses were reported in 1701 (56%) cases.	NR	NR	NR
Read & Laschinger (2013) (68)	342 newly qualified nurses in Ontario (Canada).	NR. Only mean values of scales used in the study were available.	The psychological capital is negatively related to bullying (r=-0.21) and to WI by peers (r=-0.19).	Physical health status is related to bullying and to WI by peers (r=0.39, and 0.28, respectively). Reduced mental health wellbeing correlated with bullying and WI by peers (r=0.32 and 0.25, respectively).	Bullying correlated with job satisfaction (r=-0.46), turnover (r=0.19), and emotional exhaustion (r=0.46). WI from peers correlated to job satisfaction (r=-0.37), turnover (r=0.19), and emotional exhaustion (r=-0.31).
Rekner et al. (2014) (67)	1582 Norvegian Nurses	NR	Anxiety (β=0.11,p<.01), depression (β=0.12,p<.01), and fatigue (β=0.10,p<.01) predict an increase in bullying behaviour reporting	Exposure to bullying behaviour predicts an increase in anxiety (β=0.06, p<0.01) and fatigue (β=0.06, p<0.01) one year later	NR
Rush et al. (2014) (82)	245 nurses from Colombia Britannica (Canada).	242 (39%).	NR	NR	NR
Simons S. (2008) (75)	511 U.S. nurses.	159 (31%)	NR	NR	Bullying and willingness to leave the work organization are correlated (r=0.51;

(continued)

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
Simons et al. (2011) (83)	1000 nurses from Massachusetts (USA). Respondents to the survey: 511 (51.1%)	94%	NR	NR	$p < 0.001$). Bullying is a predictor of the willingness to quit.
Somani et al. (2015) (54)	458 nurses from public and private hospital in Pakistan.	33.8%; 48% of nurses experienced bullying by peers.	Females were more bullied than males (71.6% n=111/155 vs 28.4% n=44/155); medical/ surgical wards (32%) and ICUs (21%) reported more bullying related incidents than other services.	NR	NR
Terzioglu et al. (2016) (84)	1034 nurses from 3 U.S. university hospitals. Respondents to the survey: 772 (75%).	NR. Only mean values of the scales used in the study were reported.	Moderate correlation between mean values of Organizational Justice Scale total score and Mobbing scale in the workplace total score (r=-0.422; $p < 0.05$). Moderate correlation between mean values of Organisational Culture Inventory total score and Mobbing Scale in the Workplace total score (r=-0.398; $p < 0.05$).	NR	NR
Teymourzadeh et al. (2014) (55)	413 hospital nurses in Teheran (Iran). Respondents to the survey: 301 (73%).	28.9%; In 8.53% of cases, the perpetrators were staffs' colleagues.	Females were more exposed to bullying than males (30.71% versus 10.32%, respectively, p=0.03).	NR	NR
Ulrich et al. (2006) (85)	4346 nurses members of the American Association of Critical Care Nurses (USA).	Negative behaviours from nurses: discriminations (340; 8.4%); verbal abuses (709; 17,6%).	NR	NR	NR
Ulrich et al. (2009) (86)	5562 nurses members of the American Association of Critical Care Nurses (USA).	Negative behaviours from nurses: discriminations (6.2%); verbal abuses (16.6%).	NR	NR	NR

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
Vessey et al. (2009) (76)	212 U.S. staff- nurses.	Medical-surgical area: 48 (23%), ICU: 38 (18%); ED: 25 (12%); OR: 19 (9%); Obstetrics: 15 (7%); Outpatients service: 12 (6%); Endoscopy and interventional radiology department: 9 (5%).	Nurses with length of service < 5 years were more bullied than the others.	NR	78.5% of nurses with a length of service < 5 years resigned looking for another job; absence from work were recorded in 48 cases (23%); 103 (49%) nurses reported progressively loss of interest in the work.
Waschgler et al. (2013) (71)	1484 nurses and nurses assistants from 11 hospitals in Murcia, Spain. Respondents to the survey: 70.48%.	NR	NR	NR	Bullying by peers was related to psychological distress (r=0.29, p<0.001), anxiety (r=0.26, p<0.001), and depression (r=0.25, p< 0.001). Work-related bullying was related to depression (r=0.24, p<0.001), anxiety (r=0.19, p<0.001), and cynism (r=0.19, p<0.001). Passive workplace bullying was related to anxiety (r=0.20, p<0.001), cynism (r=0.19, p<0.001), and depression (r=0.19, p<0.001). Personal-related bullying was related to emotional exhaustion (r=0.26, p<0.001) and anxiety (r=0.25, p<0.001).
Yildirim D. (2009) (58)	495 nurses from a university hospital in Ankara, Turkey. Respondents to the survey: 286 (58%).	21%	Bullying was positively associated to workload (p<0.01) and total length of service (p<0.05), while it was negatively associated to the age (p<0.01). Logistic regression showed how bullying was related to age, workload, and total length of service's years (ß=0.48; F=39.70; p<0.001). 45% of bullied nurses were affected by workload (p <0.001)	NR	NR

(continued)

Table 3. Bullying among nurses. Prevalence and consequences

Author (year)	Sample/Setting	Prevalence	Related factors	Psychophysical consequences	Professional impact
Yildirim & Yildirim (2007) (64)	710 nurses from 6 private and public hospitals in Istanbul (Turkey). Respondents to the survey: 505 (71%).	7.3%–55.2%.	NR	14.3%–75%.	72% worked harder and worked smarter, 70.5% performed more attentively (to avoid criticism); 40.6% planned to quit their job position. and the 15% were affected by the younger age (p<0.01).
Yun & Kang (2018) (69)	301 nurses of South Korea Hospitals	21.9% exposed to bullying	Relationship-oriented organizational culture has a negative direct effect on workplace bullying (β=-0.48, p < 0.001);	Bullying has direct (β=0.36, p < 0.001) and total (β=0.51, p < 0.009) effects on psychological symptoms	Bullying has an indirect effect on turnover intention (β=0.20, p< 0.007) symptom experience.

Legend: BMI – Body Mass Index; CBI – Copenhagen Burnout Inventory; CI: Confidence Interval; ED – Emergency Department; ICU – Intensive Care Unit; MBI –- Maslach Burnout Inventory – GS – General Survey; NAQ-R – Negative Act Questionnaire Revised; NR – Not Reported; OR – Operating Room; SD – Standard Deviation; Pt. – Patient; PTSD – Post-Traumatic Stress Disorder; WI – Workplace Incivility.

mild positive correlation has been found between bullying and the amount of work hours per week (r=0.11, p<0.05) (60). Moreover, the perception of inclusive leadership or understaffing represent items in the predictive modelling for bullying (61).

Moderate to high levels of anxiety represent a risk factor as well, (adjusted OR 4.3, IC95%: 1.5-11.8) (62). This finding is also upheld by Pai & Lee (OR=4.7; IC 95%=1.09–6.93) (63).

Negative psychophysical outcomes of bullying can affect up to 75% of the victims (64).

Jaradat & Niensen (65) found that female and male nurses exposed to workplace aggression and bullying reported higher mean levels of psychosomatic symptoms than unexposed (respectively adjusted mean difference 1.5, 95% CI 0.3, 2.7, R^2=0.05, and adjusted mean difference 3.2, 95% CI 1.0, 5.5, R^2=0.09).

The nurses targeted by bullying have shown moderate correlation for loss of confidence (r=0.38, p<0.05), social consequences (r=0.30, p<0.05), depression-anxiety (r=0.37, p<0.05), and a general deterioration of the wellness status in accordance to the General Health Questionnaire 12 (r=0.40, p<0.05) (66).

Also Reknes et al (67), showed through a longitudinal study, that nurses exposed to bullying behaviour at T1 evaluation reported one year later increased symptom of anxiety (β=0.06, p<.01) and fatigue (β=0.06, p<.01) even when controlling for age, gender, night work, job demands. This study also remarked the presence of a vicious cycle causing nurses with higher anxiety (β=0.11, p<.01), depression (β=0.12, p<.01), and fatigue (β=.10, p<.01) at T1 evaluation, to report more bullying behaviour.

Chen et al., reported levels of symptoms of post-traumatic stress disorder (PTSD) even higher than 14 in 17.6%, recognizing that 10% of that sample unfortunately developed this syndrome (62).

Different authors have found a direct correlation between bullying among peers and physical health status (r=0.39), likewise the mental health status (r=0.32) (68).

In a recent study (69), bullying showed a direct effect on the arise of psychological symptom in nurses (β=0.36, p<.001) and an indirect effect through the reported symptom on turnover intention (β=0.20, p<0.007).

Allen et al. (60) found that bullying is a predictive factor for the burnout syndrome (β=0.37, p<0.001), as also reported by Laschinger et al. (70) and by Waschgler et al. (71). Moreover there is a negative correlation between bullying and work productivity (F=0.045, r=−0.322, p<0.01) (72).

Nevertheless, Kiwimaki et al. (73) showed how targets of bullying usually tend to collect sick absence from the workplace more than the average staff's trend: 1.5 (IC 95%: 1.3-1.7) times, 1.2 times (IC 95%: 1.1-1.4), respectively.

Laschinger (74). found a negative correlation between bullying and the quality of delivered nursing care delivered (r=-0.23). Findings reported a correlation with hospital-acquired infections (r=0.18), perception of patients' safety risk (r=0.33), relatives' complaints (r=0.26), and overall adverse events (r=0.23).

Unsurprising, increasing of bullying experience directly influences the targets' intention to quit from their job position (r=0.51; p<0.001) (75), also because there is a negative correlation with the job satisfaction (r=-0.46) (68).

A survey performed in Turkey (64). showed a percentage up to 40.6% (in the sample of population investigated) of nurses planning resignation due to bullying. In addition, data from Vessey et al. (76) lead us to a concerning scenario: the 78.5% of nurses with a seniority less than 5 years, left their position for different careers.

Finally, a percentage from 25% (61) to 82% (77), put in practice different countermeasures to cope with the bullying experienced. Strategies were (64): sharing the experience with significant others or other professionals/institutions, reporting the episodes to line managers, and to face directly the bully (67.3%).

Risk factors

Several authors state that there are two different variables bringing the risk of bullying and negative behaviours in the workplace (Table 4). First is the job market's fluctuation (local or global), forcing professionals to endlessly careers' changes. The second is represented by the social environment, where people according to their background and resources are coping-reacting against problems or conflicts (87). This assumption appears to be valid for both, targets and perpetrators.

A quality analysis of incident reports related to working incivility and violence among healthcare professionals has identified two main factors as possible catalysts for their occurrence: behaviour at work and job planning.

The first factor includes unprofessional conducts, arguments about tasks, and disagreement on the nursing care strategy plus disappointment on peers job performance. The second one includes possible conflicts and aggressions due to a failure in the adherence to protocols, right assignation of patients, limited resources, and high levels of nursing workload (89).

Bullying seems to be more expected in clinical environments with high technical skills demands instead of clinical areas where relationships are the predominant nursing activities (76).

Table 4. Risk factors for workplace bullying occurrence (87, 88)

Variable	Subject	Role	Characteristics
Labour market	Organisations		Organisational issues Work control/task Work control/time Uncertainty Organizational changes
Society - Environment	Persons	Victim	Less assertive Less competitive More conscientious Less extroverted Less balanced

In nursing settings, the bullying attitude seems to be a consequence of previous learning of negative behaviours (a sort of 'imprinting'), a deviant attitude acquired from the professional pack and the existing social environment (90).

Nonetheless, different authors spotted that perpetrators of bullying acts, forcing to conceal themselves a poor self-esteem, lack of social competence, useless leadership plus self-promotion micro-politics, because they are craving career progression (91). Others distinctive features of bullies are their narcissistic personality, a sense for revenge, tyranny plus a bad habit to spread accusation and rage over the people (91).

Often, the abuses instigators are prone to forgive themselves, assuming their misconduct is free of risks or collateral effects (92).

Finally, there is an escalation of bullying frequency in published literature due to a boosted clinical complexity of patients, spending review of budgets (less resources) along with a mounting workforce turnover (91).

Getting into the details, research from the United States of America have shown how the junior staff nurses category, especially the more youth, are at highest risks for bullying. It could be related to their lacking job experience, less confidence in their fresh job role and a scarce awareness of the unspoken rules inside the work environment (when compared to senior staff) (91).

Psychological and physical impact

A systematic review of the literature classified the bullying effects on the victims according to several categories (87):
- Decreased self-confidence
- High levels of stress
- Poor job satisfaction
- Overreaction to mental stress
- Psychological symptoms
- Certified sick leave
- Self-certified sick leave
- Cardiovascular disease
- Psychosomatic disorders
- Chronic illness

The values of percentages reported about nurses'

Table 5. Classification of bullying related symptoms and illnesses (3, 29, 37, 62, 63, 87, 88, 94).

Typologies	Symptoms and illnesses
Physical	Insomnia
	Irritable Bowel Syndrome
	Sweating/Tremor
	Stomach-ache
	Abdominal pain
	Fatigue
	To feel/to be sick
	Arterial hypertension
	Headache
	Loss of appetite, loss of weight
	Asthma
	Rheumatoid Arthritis
	Osteoarthritis
	Sciatic Nerve Pain
	Back pain
	Diabetes
	Dizziness
Psychological	Loss of self-confidence
	Rage
	Guilty feelings
	Lack of help sensation
	Hyper-surveillance
	Want to cry sensation
	Anxiety, panic attack
	Depression
	Sensation of fear
	Post-Traumatic Stress Disorder
Behavioural	Irritability
	Aggressiveness
	Unable to relax, incapability to knock off work
	Excessive double check for every actions; obsessive attention at work
	Increase consumption of tobacco
	Tendency to isolation
	Attempting suicide/suicide contemplation

physical and psychological health status, are widely variable (i.e. 12%-75%) (93).

Table 5 summarises the category of symptoms and disorders bullying related, according to the consulted literature.

Conclusions

The scientific literature covers a wide range of prevalence of workplace incivility, lateral violence and bullying in nursing.

Multiple reasons could be the explanation behind so many differences. For example, a workplace context based on various 'in-groups', sometimes quite dissimilar within same place or unit. Also the differences in the used measuring tool should be taken in account, because its features may directly influence the detection of lateral violence and bullying episodes and their frequencies as well. Even the operational definitions of these cases are subjects to this methodology's choice.

A clear exemplification of this issue is the bullying/mobbing definition itself: "at least one negative act, weekly or more often, for six or more months" (95) or, according to other authors, "at least of two typologies of abuses, weekly or more often, for six or more months" (96).

Finally, the complexity in the data collection process retrieved from summarising tables was a challenge, due to the ambiguity of terminology (as already mentioned) plus the heterogeneity of tools employed. To rule out between workplace incivility, lateral violence and bullying-mobbing sometimes was quite difficult.

However, this review showed that workplace incivility, lateral violence and bullying are widespread in the clinical settings of nursing profession, and also that the consequences of lateral violence and bullying can be serious for the victims and the organizations.

Psychophysical symptoms and increasing of nurses' turnover are the major expressions of these consequences.

Because the emotional and physical impact on victims cannot be neglected and the amount of people having the intention to leave the profession is alarming, the prevention becomes a priority.

So far, the strategies implemented were: get better awareness of the issue between peers and managers, the promotion of educational campaign for prevention, to provide personal resources to handle conflicts and improve communication's skills, supporting authentic leadership practices and zero-tolerance policy against abuses (97).

Unfortunately, we observe a systematic response from the nursing management not fully supported by scientific evidence, plus the failure of zero-tolerance and informative policies is well recognized (98).

Definitive solutions for this matter, mainly based on the complexity of the humans' social interaction,

are not at fingertips. However, because its nature, a cultural-based response could be a possible approach.

It should start from the nursing academic education (basic and advanced), throughout workplace environments, becoming part of the continued education programs in the arrangement of 'raising awareness' dedicated events. At the same time, a call for action to isolate and to contain any workplace incivility or violence should be promoted.

As an adjunct to these interventions, an official stance from the nurse management and leaders would be desirable, in synergy with a systematic monitoring of these phenomena by occupational health departments.

In summary, we found a lack of evidence about policies and programmes to eradicate bullying and lateral violence. Prevention of these phenomena should start from a widespread information inside continue educational events and the university nursing courses.

Key points

- Workplace incivility, lateral violence and bullying are described as a continuum related to their intensity, frequency and presence of intention to harm the target.
- Prevalence of these phenomena in the nursing profession is variable, reaching considerable values (87% for lateral violence, 81% for bullying).
- In terms of emotional and physical impact, negative outcomes can seriously affect the victims (up to 75% of cases). A wide range of physical and psychological symptoms may occur.
- Two main factors were identified as possible catalysts with their occurrence: behaviour at work and job planning.

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