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Deposited in *Repositório ISCTE-IUL*:

2021-11-23

Deposited version:

Accepted Version

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Ma, S., Xie, W. & Ramalho, N. (2021). Impact of bullying on occupational commitment in young nursing professionals: the mediating role of emotional labour and emotional exhaustion. *Contemporary Nurse*. 57, 13-27

Further information on publisher's website:

10.1080/10376178.2021.1912617

Publisher's copyright statement:

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# **Impact of bullying on occupational commitment in young nursing professionals: the mediating role of emotional labour and emotional exhaustion**

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## **Abstract**

**Background:** Nurses are often exposed to workplace bullying, which leads to their burnout and leaving the profession. However, the processes by which workplace bullying leads to such outcomes are not clear.

**Aims:** This study investigates how work-related and personal-related bullying affect nurses' occupational commitment by integrating emotional labour and emotional exhaustion.

**Method:** This study employs a cross-sectional design. The model was tested using structural equation modelling with a sample of 245 Chinese nurses.

**Results:** Work-related bullying is positively related to both surface acting and deep acting, and a negative relationship exists between deep acting and emotional exhaustion. Personal-related bullying is not related to either surface acting or deep acting, but is positively related to emotional exhaustion. Emotional exhaustion is negatively related to affective occupational commitment.

**Conclusions:** This study implies that bullying behaviours should be distinguished with work-related bullying and personal-related bullying, and emotional regulation strategies are meaningful in managing the negative impact of work-related bullying.

**Implication for Nursing Management:** Policymakers and managers need to distinguish two types of bullying behaviour and manage them accordingly with different strategies. For nursing schools it is important to prepare nursing students with not only professional skills but also social competence and emotional management skills.

**Keywords:** Work-related Bullying/personal-related Bullying, Emotional Labour, Emotional Exhaustion, Affective Occupational Commitment, Chinese Nurse

## **INTRODUCTION**

Nurses' exposure to workplace bullying or mobbing is currently receiving considerable attention internationally (Rodríguez-Muñoz, Moreno-Jiménez & Sanz-Vergel, 2015). While the shortage of nurses has become a serious global issue (Heinen et al., 2013), nurses' exposure to bullying is prompting higher burnout and intention to leave the nursing profession altogether (Hogh, Hoel, & Carneiro, 2011). To retain the nurses in the nursing profession, it is important to understand how workplace bullying influences their occupational commitment. This is very much true in China as most of the young nurses are only-children due to the "one-couple one-child" policy and vulnerable to workplace bullying.

Furthermore, there have been few attempts to investigate the mechanism of the linkage between workplace bullying and its consequences (Balducci, Fraccaroli & Schaufeli, 2011). Moreover, many researchers differentiate between two factors of bullying behaviours: work-related bullying and personal-related bullying (Einarsen et al., 2011), but there is little knowledge on the consequences of work-related bullying and personal-bullying. This study seeks to fill in the gaps, developing a process model of workplace bullying and its consequences by linking work-related and personal-related bullying, emotional labour, emotional exhaustion, and affective occupational commitment.

### **Workplace Bullying**

Workplace bullying is "*the persistent exposure to interpersonal aggression and mistreatment from colleagues, superiors or subordinates*" (Einarsen, Hoel, & Notelaers, 2009, p. 24). Einarsen & Hoel (2001) proposed three components of workplace bullying: work-related bullying, personal bullying, and physical bullying, while more recently researchers have come to stress the first two of those (Einarsen et al., 2011). This study focuses on work-related bullying and personal-related bullying.

Researchers suggest that nurses, especially young nurses, are facing a high risk of exposure to workplace bullying that leads to burnout, absenteeism, and intention to quit (Laschinger et al., 2010). Workplace bullying in the nursing profession ranges from infighting amongst nurses, sabotage, passive-aggressive behaviour, verbal abuse, to failure to respect confidences and privacy (Stanley et al., 2007). In nursing professions there is a phenomenon of nurses “eating their young” (Flinkman & Salanterä, 2015) – i.e., the more experienced nursing staff has been accused of treating new nurses with sometimes intolerable contempt. The reasoning underlying the phenomenon of bullying young nurses is the following. First, the power imbalance between senior and young nurses, a lack of control over one’s own job, and a crowded and noisy work environment are the conditions that enable bullying to occur (Salin, 2003). Second, Leymann (1996) argued that two parallel hierarchies from doctor and nurse, extensive workload, unclear responsibilities, and role ambiguities make hospitals poorly managed organizations, which lead to bullying/mobbing among nurses. Third, young nurses may suffer deficits in social skills, professional knowledge and skills, and low performance, which make them become a victim of bullying (Zapf, 1999). In addition, a high level of anxiety and repression and conflict avoidance behaviour and little effort to join the working group make young nurses more likely to become targets (Zapf, 1999).

### **Emotional Labour**

Emotional labour is the management of emotion to create a facial and bodily display required by organizations and is common in jobs with frequent interaction with customers, especially in the nursing profession (Hochschild, 1983). Grandey (2000) argues that surface acting and deep acting are two different ways of regulating emotions.

#### *Surface Acting*

Surface acting is an adjustment of emotional expression to meet the job requirements that does not correspond to inner emotions (Hochschild, 1983). Zapf (2002) argues that during

interactions, emotional dissonance persists between internal feelings and external expression. Because of the discrepancy between internal feelings and external expression, the regulation of emotions through surface acting may lead to negative well-being outcomes such as burnout (see Hulsheger & Schewe, 2011) as well as job-related outcomes such as lower job performance and turnover intention (e.g., Nixon et al., 2010).

### *Deep Acting*

Deep acting amounts to changing the emotional expression to meet the expectations of the organization, while trying to feel the emotion displayed (Hochschild, 1983). Deep acting is “faking in good faith” (Grandey, 2000). In a hospital setting, nurses regulate their emotional expression as well as internal feelings to display sympathy so as to meet the organization’s rules (Brotheridge & Grandey, 2002). Both theoretical arguments and empirical studies state that deep acting may have positive outcomes, such as greater personal achievement, better job satisfaction, and performance for employees (e.g., Brotheridge & Lee, 2003). In addition, deep acting appears to cause no harm to personal well-being and may improve performance (Hulsheger & Schewe, 2011).

### **Emotional Exhaustion**

Job burnout has been described as a psychological response to chronic job stressors (Leiter & Maslach, 2004). While burnout consists of three dimensions (emotional exhaustion, cynicism, and personal efficacy), emotional exhaustion is believed to be the core element, referring to over-consumed individual’s physical and emotional resources (Leiter & Maslach, 2004). Xie, Wang, & Chen (2011) contend that Chinese nurses exhibit mainly emotional exhaustion, a symptomatic aspect of burnout, rather than depersonalization and reduced personal accomplishment – the attitude components of burnout. Nurses are a high-risk group for burnout (Maslach & Leiter, 1997) and young nurses face an even higher risk for emotional exhaustion.

Emotional exhaustion not only affects the quality of care by nurses (Poghosyan et al., 2010), but also causes nurses psychological problems such as turnover and absenteeism (Maslach, Jackson, & Leiter, 1996). Burnout in nursing has been studied extensively for more than two decades, but burnout and its consequences amongst nurses in mainland China remains largely unknown (Zeng, 2009).

### **Occupational Commitment**

Occupational commitment has been defined as “commitment to a particular line of work” (Meyer, Allen, & Smith, 1993, p. 540). Occupational commitment is conceptualized as a psychological link between a person and his or her occupation due to an affective reaction to that occupation, which has meaningful implications for whether the person wishes to remain in the occupation (Lee et al., 2000).

Previous studies suggest that occupational commitment is a predictor for occupational turnover intention (e.g. Lee, Carswell, & Allen, 2000). Given changes in workplace dynamics such as organizational restructuring and growth of contingency workforce, researchers argue that occupational commitment is a more significant variable than organizational commitment in deciding whether to stay or leave, as employee commitment might be transitioning from the organization to one’s occupation (May, Korczynski, & Frenkel, 2002). More recently, Chang et al. (2007) found in their study of nurses in Taiwan China that affective occupational commitment was the strongest predictor to occupational turnover intention among the three components.

### **Hypotheses and Theoretical Framework**

Based on the emotional regulation and emotional labour theory (Grandey, 2000) and bullying research (Nielsen & Einarsen, 2012), we propose the research model shown in Figure 1. The logic of the model is as follows. Bullying behaviour as an emotional event may trigger emotional response (e.g., anger) that leads to inappropriate behaviours (e.g., crying), which

drives individuals to regulate their response in order to comply with the display rules. According to Grandey (2000), this regulation process involves deep acting or surface acting. However, personal-related bullying may lead to emotional detachment – feelings of detachment from others or emotional numbness (Li et al., 2014) and result in emotional exhaustion directly. Work-related bullying and personal-related bullying, directly and indirectly, affect emotional exhaustion, respectively. This in turn lowers affective occupational commitment. The relationships between the variables and hypotheses are elaborated next.

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Insert Figure 1 about here

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Many studies suggest that there is a strong link between bullying and burnout (Laschinger et al., 2010). Nielsen and Einarsen’s meta-analysis (2012) revealed an average bullying/burnout correlation of .27 across 10 cross-sectional studies. In their theoretical model, Nielsen and Einarsen (2012) argue that the nature of the bullying behaviour, coping mechanisms, and individual characteristics are important factors influencing negative job-related outcomes of workplace bullying. This suggests that to understand the process of bullying and its consequences, it is important to consider the nature of bullying (e.g. work-related and personal-related bullying) and emotional coping strategies (e.g. deep acting and surface acting). Grandey, Kern, and Frone (2007) propose that emotion regulation is the mechanism for the relationship between aggression like verbal abuse and emotional exhaustion. Therefore, when faced with bullying from organizational members, we expect that individuals will regulate their emotions, which will lead to emotional exhaustion. Lee and colleague’s (2000) meta-analysis revealed that occupational commitment is negatively correlated with emotional exhaustion (-.435). According to the research mentioned above, we proposed that:

*Hypothesis 1a: Work-related bullying is positively related to emotional labour.*

*Hypothesis 1b: Personal-related bullying is positively related to emotional labour.*

*Hypothesis 2a: Work-related bullying is positively related to emotional exhaustion through the mediating effect of emotional labour.*

*Hypothesis 2b: Personal-related bullying is positively related to emotional exhaustion through the mediating effect of emotional labour.*

*Hypothesis 3a: Work-related bullying is negatively related to affective organizational commitment through a sequential indirect effect via (a) increased emotional labour and subsequent (b) emotional exhaustion.*

*Hypothesis 3b: Personal-related bullying is negatively related to affective organizational commitment through a sequential indirect effect via (a) increased emotional labour and subsequent (b) emotional exhaustion.*

## **METHOD**

### **Sample and procedure**

The research targets of this study were nurses in hospitals in China aged between 18 and 29 years old. Of the 302 nurses who were invited to participate in the study, 245 agreed to participate in the study. The data were collected from July to October 2016.

### **Ethical approval**

Since the research did not involve patients, the ethical board was not called for and no ethical approval was required for this article. The data collection and data analysis methods guaranteed participants anonymity.

### **Measures**

Except when otherwise stated, participants responded on a 6-point frequency scale ranging from 1 (never) to 6 (always) to all scales.

**Workplace bullying** - Bullying behaviours were measured with the work-related bullying and personal bullying scales from the Negative Acts Questionnaire-Revised (Einarsen, Hoel, & Notelaers, 2009). Both scales showed acceptable reliability (Cronbach alpha=.77 and .75, and CR=.777 and .737 respectively). Likewise, following Fornell and Larcker's, (1981) criteria, they have both convergent (AVE=.540, .536, respectively) and discriminant validity (inter-factor correlation squared  $=.20 < AVEs$ ).

**Emotional labour:** Emotional labour was measured with Grandey's (2003) scale, originally proposed by Brotheridge and Lee (2003). This scale includes five items for surface acting, and three items for deep acting. Both scales showed acceptable reliability (Cronbach alpha=.78 and .89, and CR=.788 and .904 respectively). The scales have both convergent (AVE=.555 and AVE=.762, respectively) and discriminant validity (inter-factor correlation squared  $=.14 < AVEs$ ).

**Emotional exhaustion:** We used the emotional exhaustion scale from the Chinese version of MBI-GS (Maslach, Schaufeli, & Leiter, 2001). This scale has five items. The scale showed good reliability (Cronbach alpha=.88, and CR=.883) and has convergent validity (AVE=.605).

**Affective occupational commitment** was measured with Meyer et al.'s (1993) affective occupational commitment scale. This scale has five items. Participants answered on a 6-point Likert scale (1-strongly disagree to 6- strongly agree). The scale showed good reliability (Cronbach alpha=.92 and CR=.931) and has convergent validity (AVE=.732).

**Socio-demographics:** Variables include gender (1=male, 2=female), age, marital status, position, education background, department, professional tenure, organization tenure, and hospital size for hospital scale.

## **Data analysis**

We followed Taylor et al.'s (2008) recommendation to use Structural Equation Modelling with AMOS 24 to test the bullying effect on emotional labour (H1a and H1b), the relationship between the bullying and emotional exhaustion through the mediating effects of emotional labour (H2a and H2b), and the sequential indirect effect of bullying on affective commitment (H3a and H3b). The sequential indirect effect was tested via bootstrapping analysis (Cheung & Lau, 2008).

## **Results**

### ***Demographics***

The sample was overwhelmingly feminine (97%), unmarried (72%), and with the professional category of primary nurses (84.9%). All participants had graduated from college and included xxx ,38% college and 62% bachelor. The participants worked in several hospital units (surgical, obstetrics, paediatrics, emergency, ICU, and internal medicine). The majority (69%) had up to three years work experience as a nurse and the vast majority had up to four years organizational tenure (92.7%).

Descriptive statistics (Table 1) show that 60% of participants reported some extent of work-related bullying, and 40.8% reported personal-related bullying. Also, individual maximum means ranged up to 3.67 (personal-related bullying) and 4.33 (work-related bullying).

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Insert Table 1 about here  
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Work-related bullying is positively related to both surface acting and deep acting, but not with personal-related bullying. Work-related bullying is not related to emotional exhaustion while personal bullying is positively related to it. Similarly, affective occupational commitment

is negatively related to personal bullying only. Deep acting has a significant association with both emotional exhaustion ( $r = -.231, p < .01$ ) and affective occupational commitment ( $r = .213, p < .01$ ). As expected, emotional exhaustion is strongly and negatively related to affective occupational commitment ( $r = .756, p < .01$ ). Overall, the above results provide preliminary support to the research model.

### **Measurement Model**

The measurement model comprehended six latent constructs with 23 items overall. The overall fit was evaluated following Byrne's (2013) guidelines using confirmatory factorial analysis (CFA). We addressed common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012), by conducting a single factor CFA solution and judging on its goodness of fit. We introduced a latent common method factor loading on each item of the hypothesized model in addition to the respective constructs. The test showed that CVM accounts for only 1.2% of the variance ( $\chi^2/df=2.99, p < .01$ ), thus indicating that CVM should not be a matter of concern for this study.

The comparison of confirmatory factor models showed that the six-factor model has better fit indices than the alternative models. Table 2 shows fit indices for all models. These results confirmed that the six constructs included in the model have discriminant validity.

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Insert Table 2 about here  
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### **Structural Model**

We tested the direct effect of work-related and personal related bullying on emotional labour (H1a and H1b) with the path coefficients and associated p-value. To test the mediating effects, we examined the direct and indirect effects between work-related and personal related bullying and emotional exhaustion through emotional labour (H2a and H2b). To test the full model we conducted a three-path sequential mediation test following Taylor, MacKinnon, & Tein (2008),

splitting work-related bullying – emotional labour (surface acting/deep acting) – emotional exhaustion – affective commitment (H3a) and personal related bullying – emotional labour (surface acting/deep acting) – emotional exhaustion – affective commitment (H3b). All of the direct and indirect effects were tested with bootstrapping analyses in AMOS with user-defined estimands. Results show the hypothesized model has a good fit ( $\chi^2(216)=380.60$ ,  $p<.001$ ,  $CFI=.950$ ,  $TLI=.941$ ,  $RMSEA=.056$ ,  $SRMR=.063$ ,  $AIC=500$ ).

To rule out possible alternative arrangements for the constructs within the hypothesized model, we conducted a series of alternative model tests. Following Hayes' (2013) recommendation, we controlled for all direct and indirect effects in the alternative models (Table 3). The first alternative model concerned direct effects only (Alternative model B) in which all indirect paths were constrained to zero, and it showed a significantly poorer fit to data than our proposed model ( $\Delta\chi^2(6) = 89.70$ ,  $p<.001$ ,  $\Delta CFI$  of .026).

To test the accuracy of the hypothesized sequential mediation, we constrained the paths from bullying to affective commitment through emotional exhaustion to zero (Alternative model C). It showed a poorer fit to the data than our hypothesized model ( $\Delta\chi^2(4) = 29.15$ ,  $p<.001$ ,  $\Delta CFI = .008$ ). Likewise, we constrained all paths that go from bullying to affective commitment through emotional labour to zero (Alternative model D), which also showed a poorer fit ( $\Delta\chi^2(5) = 213.11$ ,  $p<.001$ ,  $\Delta CFI = .064$ ). This supports the hypothesized sequential mediated model.

To preclude the possible interpretation of a reverse mediation, we conducted two tests on alternative models: the reversed order of emotional exhaustion to emotional labour (Alternative model E) and the reversed order of emotional labour to bullying (Alternative model F). Both showed a poorer fit to the data than our hypothesized model ( $\Delta\chi^2(2) = 24.11$ ,  $p<.001$ ,  $\Delta CFI = .007$ , and  $\Delta\chi^2(3) = 24.70$ ,  $p<.001$ ,  $\Delta CFI = .007$ , respectively). The full reverse mediation model (Alternative model G) also showed a poorer fit to the data ( $\Delta\chi^2(1) = 23.58$ ,

$p < .001$ ,  $\Delta CFI = .007$ ). On the basis of these findings, we opted for our hypothesized model as the final one.

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Insert Table 3 about here  
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Based on our hypothesized model we examined the hypotheses. Results showed that work-related bullying is positively related with emotional labour (surface acting,  $\beta = .32$ ,  $p < .001$ ) and (deep acting,  $\beta = .32$ ,  $p < .001$ ) which supports H1a, but H1b is not supported. To test hypothesis 2 (H2a and H2b), we conducted a bootstrapping procedure following Preacher and Hayes' (2004) recommendations ( $n = 5000$ ) for a corrected bias confidence interval of 95 percent. Results showed that the indirect effect of work-related bullying on emotional exhaustion through deep acting was significant (indirect effect =  $-.159$ , CI95 [ $-0.317$ ,  $-.065$ ],  $p < .001$ ), but the indirect effect through surface acting was not significant. Thus, H2a is partially supported. The indirect effect of personal-related bullying on emotional exhaustion through emotional labour was not significant. Thus, H2b is not supported.

Lastly, the test for the sequential indirect effect between work-related bullying and affective organizational commitment through deep acting and emotional exhaustion showed a significant value (indirect effect =  $.115$ , CI95 [ $.047$ ,  $.230$ ],  $p = .001$ ), while for the path that goes through surface acting the indirect effect was non-significant. Therefore, H3a is partially supported. The test of the mediation effect of emotional exhaustion in the relationship between personal related bullying and affective occupational commitment showed a significant indirect effect (indirect effect =  $-.536$ , CI95 [ $-0.841$ ,  $-.293$ ],  $p < .001$ ) thus supporting H3b. The latent variables and their

relationships as standardized coefficients are illustrated in Figure 2 and their unstandardized values are reported in Table 4.

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Insert Figure 2 about here

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Insert Table 4 about here

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## **Discussion and Conclusion**

This study aims to understand the process that work-related and personal-related bullying affect nurses' occupational commitment by integrating emotional labour and emotional exhaustion. The positive relationship between work-related bullying and emotional labour and lack of relationship between person-related bullying and emotional labour reinforce Nielsen and Einarsen's (2012) proposition on the importance of nature of bullying behaviour and manageability of discrepancy in the process of bullying and its consequences. Nielsen and Einarsen (2012) argue that when workplace bullying occurs, there are different levels of discrepancy and different coping strategies (e.g. deep acting or surface acting), leading to the different outcome of workplace bullying. The results of this study suggest that the discrepancy of work-related bullying is more likely to be manageable and that individuals activate their coping strategies to deal with the resources in managing this type of bullying behaviour. On the other hand, the magnitude of the discrepancy of personal-related bullying is more likely to be unmanageable and will lead to emotional detachment – feelings of detachment from others or emotional numbness (Mikkelsen & Einarsen, 2002). When individuals experience too strong

an emotional strain, they cognitively detach themselves from the implied emotion and may not engage in emotional labour (see Li et al., 2014). Our findings imply that unmanageable situations (such as personal-related bullying) lead to emotional detachment, and therefore, deactivates any emotional regulation strategy. This suggests the importance of differentiating between work-related and personal-related bullying in studying workplace bullying behaviour in the future. Our results suggest that more detrimental effects arise from personal-related bullying.

Taking the above results together, we argue that in the process of workplace bullying, not every sort of bullying has the potential to enact both emotional regulation strategies (surface and deep acting) equally. Based on COR theory (Hobfoll & Freedy, 1993), it is only in the circumstance of work-related bullying that individuals will activate the surface and/or deep acting to obtain, save, and maintain their resources. Thus, work-related bullying is not directly associated with emotional exhaustion and affective occupational commitment (see Table 1). In this regard, emotional regulation is an important part of the process of work-related bullying and its consequences, and is also an important strategy for the victims of bullying to manage the conflict they face. However, when individuals are subjected to personal-related bullying like a personal insult, they may experience strong and unmanageable emotions (termed “emotional excess” by Li et al., 2014) and become emotionally numb. (There is a Chinese saying, “*there is no greater sorrow than the sadness in a hopeless heart*” 哀莫大于心死). Thus, individuals will not engage in emotional regulation (surface acting and or deep acting) to seek resources, and thus become emotionally exhausted directly.

Lastly, our results reveal that there is a negative relationship between emotional exhaustion and affective occupational commitment. The result is in line with earlier research and stresses the importance of managing emotional exhaustion to prevent occupational withdrawal in the nursing profession. The respondents of this study reported a substantial level of emotional

exhaustion (mean=4.16 out of 6), suggesting the potential risk of their leaving the nursing profession.

### **Implications for Policy and Practice**

The results of this study have a number of implications for policymakers, hospital managers, nursing schools, and nurses. First, policy makers and managers need to distinguish between two types of bullying behaviour and manage them accordingly. For example, policy makers and managers need to prevent the occurrence of personal-related bullying in nurses, given its strong and direct association with emotional exhaustion and affective occupational commitment. Based on COR theory, policy makers and managers may manage work-related bully by providing organizational support and supervisor support to facilitate nurses' use of deep acting to cope with work-related bullying. Furthermore, policy makers and managers need to be aware of the severe emotional exhaustion young nurses experience and its negative effects. This study suggests that emotional exhaustion may lower nurses' affective occupational commitment.

For nursing schools it is important to prepare nursing students with not only professional knowledge and skills, but also social competence and conflict management skills. Zapf (1999) suggests causes of bullying in nurses include their conflict avoidance behaviour, deficiencies in social competence, and inability to recognize conflict, in addition to low professional skills.

For nurses, it is important for them to appraise and distinguish correctly work-related bullying and personal-related bullying to avoid treating work-related bullying as personal-related bullying. In addition, nurses are encouraged to employ deep acting to cope with work-related bullying, as such an emotional regulation strategy may mitigate the bullying effect on emotional exhaustion. Lastly, nurses should seek support from employers and supervisors to gain extra resources to deal with bullying behaviours in the workplace.

### **Limitation and Future Studies**

Findings should be interpreted with caution due to limitations. First of all, the sample was restricted to an age-range below 30 years-old. Changing the threshold (putting it above or below) might change the results. Also, due to the subjectivity of measures, the cross-sectional design does not offer guarantees that all findings are bias-free, nor that the causal chain flows in the direction in our model. It would be worthwhile to extend the study to the international context to verify some assumptions that could be common to the specific “young nurses” category. Lastly, future studies are needed to enlighten and gain a more granular view of how emotional regulation interacts with emotional detachment, and which level of personal-related bullying may be taken as too much to deal with and deactivate emotional regulation strategies.

**Funding Sources:** no external funding

**Conflicts of interest:** none

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Figure 1

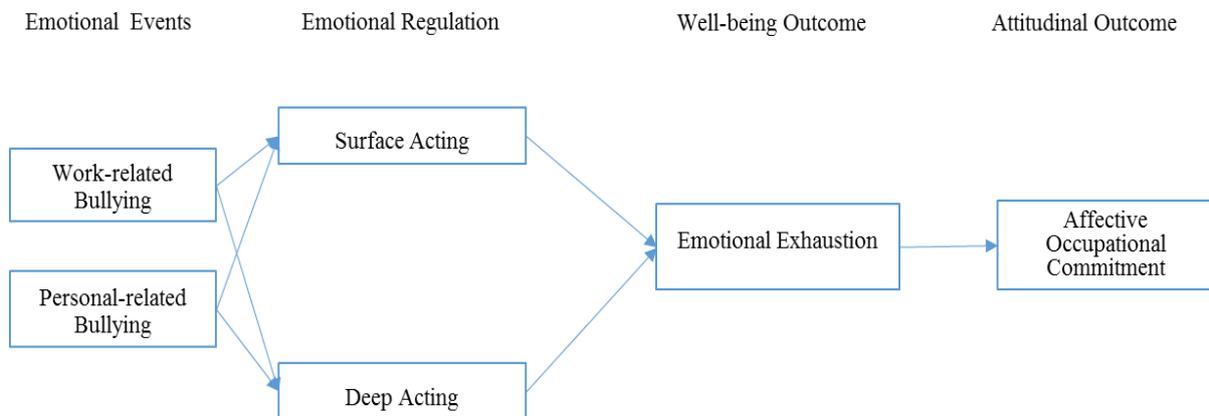


Figure 1 – The Process Model of Workplace Bullying and its Consequences

Figure 2

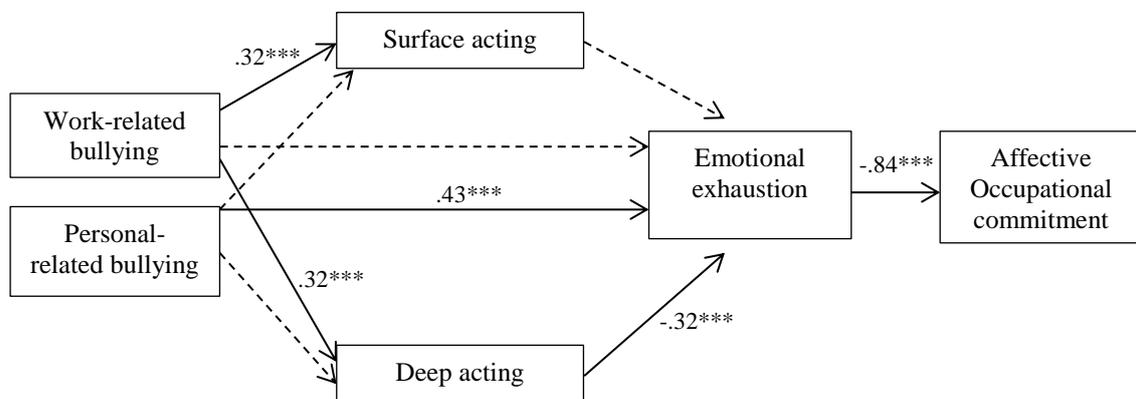


Table 1: Descriptive statistics (means and correlations)

	Min- max	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Gender	1-2	-	-	1									
2. Education	2-3	-	-	-.084	1								
3. Working experience	2-4	-	-	-.045	-.010	1							
4. Organizational tenure	1-6	-	-	-.024	.056	.758**	1						
5. Beds of hospitals	3-5	-	-	-.023	.006	-.333**	-.209**	1					
6. WorkBullying (1-6)	1-4.33	2.03	.67	.031	-.111	.299**	.175**	-.396**	1				
7. PersonBullying (1-6)	1-3.67	1.75	.57	-.018	-.276**	.170**	.118	-.291**	.395**	1			
8. SurfaceActing (1-6)	1-5.75	3.99	.71	.110	-.005	.172**	.141*	-.102	.304**	.084	1		
9. DeepActing (1-6)	1-4	2.25	.67	.053	.063	.281**	.142*	-.289**	.256**	.056	.184**	1	
10. EmotionalExhaustion (1-6)	2-5.8	4.19	.91	.074	-.198**	-.153*	-.110	.163*	.122	.380**	.052	-.231**	1
11. AffectOccupCommit (1-6)	1.4-5	3.29	1.03	.054	.140*	.248**	.183**	-.208**	-.088	-.316**	.002	.213**	-.756**

\*p<.05; \*\* p<.01 (two-tailed)

Table 2: Measurement models comparison

Model	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta CFI$	AIC
Six factor model	386.51	216	1.789*	.948	.939	.057	.067	-	-	506
Five factor model (WRB+PRB, SA, DA, EE, AOC)	514.79	221	2.329*	.910	.897	.074	.080	128.2 8 (5)**	.038	624
Five factor model (SA+DA, WRB, PRB, EE, AOC)	637.15	220	2.896*	.872	.853	.088	.092	250.6 4 (4)**	.076	749
Four factor model (WRB+PRB, SA+DA, EE, AOC)	761.88	224	3.401*	.835	.814	.099	.107	375.3 7 (8)**	.113	865
Three factor model (WRB+PRB+SA+DA , EE, AOC)	1124.1	228	4.931*	.725	.695	.127	.161	773.0 2 (12)**	.223	1220
Single factor model	702.04	229	3.066*	.855	.840	.092	.219	315.5 3 (13)**	.093	796
Null model	716.01	230	3.113*	.851	.836	.093	.218	329.5 (14)**	.097	808

WRB: Work-related bullying; PRB: Personal-related bullying; SA: Surface acting; DA: Deep acting; EE: Emotional exhaustion; AOC: Affective occupational commitment

Note: “+” indicates fusion of constructs into a single latent construct

\*\*  $p < .01$

Table 3: Procedure of structural equations modelling comparison

Model	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta CFI$	AIC
Full hypothesized model (Final Model): Model A (six factor model)	380.60	216	1.760**	.950	.941	.056	.063	-	-	500
Alternative Model B– Direct effects only	470.30	224	2.100**	.924	.915	.067	.127	89.70 (8)**	.026	574
Alternative Model C– emotional exhaustion as mediator only	409.75	220	1.863**	.942	.933	.059	.082	29.15 (4)**	.008	521
Alternative Model D– emotional labour as mediators only	593.71	221	2.686	.886	.869	.083	.191	213.11 (5)**	.064	703
Alternative Model E - reversed med (emotional exhaustion – emotional labour)	404.71	218	1.856**	.943	.934	.059	.098	24.11 (2)**	.007	520
Alternative Model F - reversed mediation (emotional labour - bullying)	405.30	219	1.851**	.943	.934	.059	.074	24.70 (3)**	.007	519
Full reversed causality model	404.18	217	1.863**	.943	.933	.059	.073	23.58 (1)**	.007	522

\*\*  $p < .001$

Table 4 – Unstandardized estimates

			Estimate	S.E.	C.R.	P
Deep_Acting	<---	Work_Related_Bullying	.276	.077	3.591	***
Surface_Acting	<---	Personal_Related_Bullying	-.043	.096	-.449	.654
Surface_Acting	<---	Work_Related_Bullying	.301	.090	3.338	***
Deep_Acting	<---	Personal_Related_Bullying	-.050	.081	-.612	.541
Emotional_Exhaustion	<---	Deep_Acting	-.576	.127	-4.534	***
Emotional_Exhaustion	<---	Personal_Related_Bullying	.740	.150	4.948	***
Emotional_Exhaustion	<---	Surface_Acting	.083	.118	.703	.482
Emotional_Exhaustion	<---	Work_Related_Bullying	.169	.138	1.220	.223
Affective_Occup_Commit	<---	Emotional_Exhaustion	-.724	.066	-10.987	***
Affective_Occup_Commit	<---	Surface_Acting	.109	.074	1.475	.140
Affective_Occup_Commit	<---	Deep_Acting	.043	.081	.532	.595
Affective_Occup_Commit	<---	Work_Related_Bullying	-.024	.086	-.279	.781
Affective_Occup_Commit	<---	Personal_Related_Bullying	.028	.097	.283	.777

Notes: \*\*\*  $p < .001$