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Anxiety as burnout predictor among nurses

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1. Background

Nursing is considered as a stressful job, eliciting physical and psychological diseases among professionals (Nantsupawat et al., 2016), since they are exposed to psychosocial risks at work when they deal with patients' death or aggressions, disease contagion or they witness patients' trauma and suffering. Some personal attributes contribute to burnout, such as anxiety traits (Meekyung et al., 2012).

2. Aims

To know anxiety and burnout levels among nurses, to identify anxiety as burnout predictor, and to verify their variations according socio-demographic and professional characteristics.

3. Method

Data were collected after formal institutions' authorization, using an anonymous questionnaire composed by sociodemographic questions, and Portuguese versions of STAI (Spielberger, 1983; Silva & Campos,1999) and MBI (Maslach & Jackson, 1997; Marques-Pinto & Picado, 2011). Participated voluntary 347 Portuguese nurses, 72% female, 50% married and 42% having children. We verified that 67% work in hospitals (25% work in health units and 8% in other health contexts such as private clinics and elderly care units), 82% are graduated (18% have a master degree), 62% work by shifts and 68% have a definitive job contract. Age varies between 22 and 60 years (M= 34,5 SD=8,42) and job experience varies between 1 and 37 years (M=11,5 SD=8,26).

4. Results

Burnout presents a moderate level, with moderated emotional exhaustion, low depersonalization and high personal accomplishment, while anxiety is moderated, with anxiety state higher than anxiety trait (Table 1). Anxiety, both state and trait, correlates positively with burnout negative dimensions, and anxiety trait correlates negatively with job experience (Table 1), suggesting adaptation skills. This argument is reinforced by the decrease on emotional exhaustion and depersonalization with more job experience, and by the decrease on depersonalization with more age. Using cut-off points for burnout levels (Maroco et al., 2016), high levels were found (Table 2) on 41% of the sample for emotional exhaustion, 7% for depersonalization and 94% for personal accomplishment, while low levels were found on 33% of the sample for emotional exhaustion, 81% for depersonalization and 1% for personal accomplishment, reinforcing that emotional exhaustion is the most visible negative symptom of burnout (Maslach & Jackson, 1997). Regarding comparative analysis according individual and professional characteristics of the sample, only working by shifts and work place influences burnout and anxiety. Nurses working by shifts present more emotional exhaustion (M=2,89 vs M=2,42 t=-3,124 p=0,002) and more depersonalization (M=1,25 vs M=0,72 t=-4,685 p=0,000), while nurses working in health units present lower depersonalization (compared with hospitals or other health contexts, respectively M=0,73 vs M= 1,17 and M=1,18 F=5,280 p=0,006). Anxiety levels were higher for nurses working on other health contexts than for those working on hospitals or health units, despite the difference is lower for anxiety state than for anxiety trait (respectively M=2,26 vs M= 1,98 and M=1,99 F=3,256 p=0,040; and M=2,17 vs M= 1,90 and M=1,82 F=5,922 p=0,003). Regression analysis (Table 3) reveals that anxiety predicts 28% of emotional exhaustion, 8% of depersonalization and 13% of personal accomplishment, while individual and professional characteristics only predict nearby 5% of depersonalization. Stepwise regression analyses (Table 4) revealed that anxiety trait predicts burnout dimensions stronger than anxiety state, with a positive correlation with negative burnout dimensions.

Table 1. Mean, SD and between age, job experience burnout and anxiety

Variables (scale)	Mean	SD	1	2	3	4	5	6
1. Age	34,49	8,42						
2. Job experience	11,53	8,26						
3. Emotional exhaustion (0-6)	2,72	1,28	-,109	-,142**				
4. Depersonalization	1,07	1,11	-,147*	-,194**	,445**			
5. Personal accomplishment	4,51	0,86	,053	,084	-,272**	-,231**		
6. Anxiety state (1-4)	2,00	0,57	-,010	-,064	,456**	,225**	-,329**	
7. Anxiety trait	1,90	0,48	-,081	-,157**	,519**	,307**	-,344**	,691**

* p < 0,050   ** p < 0,010

Table 2. Percentage by burnout level on each dimension

Burnout level (0-6)	Emotional exhaustion	Depersonalization	Personal accomplishment
Reduced (<2)	33	81	1
Moderated (2-2,9)	26	12	5
High (≥3)	41	7	94

Table 3. Regression (Enter) analysis of predicted value of individual variables and anxiety on burnout

Dependent variable	Predictors	R²	R² change	F	p
Emotional exhaustion	Sociodemographic variables	,021	,021	1,150	,335
	Professional variables	,058	,036	1,589	,110
	Anxiety	,339	,281	11,030	,000
Depersonalization	Sociodemographic variables	,043	,043	2,357	,041
	Professional variables	,088	,045	2,505	,007
	Anxiety	,166	,078	4,282	,000
Personal accomplishment	Sociodemographic variables	,019	,019	1,017	,408
	Professional variables	,030	,011	0,808	,621
	Anxiety	,156	,126	3,988	,000

Table 4. Regression (Stepwise) analysis of predicted value of anxiety dimensions on burnout

Dependent variable	Predictors	R²	R² change	β	t	p	F (p)
Emotional exhaustion	Anxiety trait	,269	,269	,389	6,180	,000	8,870
	Anxiety state	,287	,018	,188	2,978	,003	(,000)
Depersonalization	Anxiety trait	,094	,094	,307	5,990	,000	35,884
	Anxiety state	-	-	-	-	-	(,000)
Personal accomplishment	Anxiety trait	,119	,119	-,224	-3,227	,001	6,306
	Anxiety state	,134	,016	-,174	-,2511	,012	(,012)

5. Conclusions

Anxiety plays an important role to burnout vulnerability, suggesting the need to prepare nurses with better self-knowledge about their individual traits and reactions to cope with stressful events at work. Research about nurses' burnout, such as the INT-SO project does on Portugal, Spain and Brazil can be useful to understand burnout vulnerability or to develop stress management programs such as Smith (2014) developed with mindfulness.

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There are no conflicts of interests for any authors.

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