

# Association of Work Nature and Emotional Exhaustion and Depersonalizations Among Nurses Working in Health Care Facilities in Dubai

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## Abstract

Emotional reaction usually develop among human service staff working with continuous emotional and physical stress. This emotional reaction was described by Maslach & Jackson to yield a progressive deterioration in work and other performance indicators. To study the association between work nature and emotional exhaustion and depersonalization among nurses working at health care facilities in Dubai. A cross sectional study, targeting all nurses working at Dubai health Authority primary health care centers. Self-administered questionnaire was used to evaluate sociodemographic data, job characteristics of nurses, burnout inventory and employee satisfaction level. Burnout syndrome and satisfaction score was calculated and nurses was classified accordingly. High emotional exhaustion level related to the time needed to reach work ranged from (7.1%) for nurses who need less than 10 minutes to (20.0%) for nurses who need more than 50 minutes. As for nursing experience, high emotional exhaustion ranged from (14.4%) for nurses with 6-12 years of experience to (18.5%) for those with less than 5 years' experience. Considering DHA experience, emotional exhaustion levels were recorded ranged from (7.7%) for nurses with DHA experience period more than 26 years to (18.4%) for others with an experience period from 16-26 years. Also (20.0%) of the nurses that were at administrative position recorded high emotional exhaustion level compared to (13.0%) in nurses working at community field. about (15.0%) of the nurses working for 8 hours daily and weekends had high emotional exhaustion levels and (16.8%) of those who had two shifts weekly. Regarding salary, nurses who receive higher salaries recorded a significantly higher emotional exhaustion level than others (32.7%) versus (11.9%), respectively. Also (44.4%) of nurses who evaluate their tasks as an easy one had high level of emotional exhaustion. Considering intention to leave within 5 years, (35.9%) of the nurses who intend to leave their current unit recorded high emotional exhaustion level compared to (7.7%) of those who didn't. There are partial mediation effects of work nature, mainly through emotional exhaustion which may increase voluntary turnover rate which seems to be an issue that should raise concern of health administrators in the region. Cost of turnover-a non-value-adding element in the organizational budget-forces managers to focus on retention.

## Keywords

Work Nature, Emotional Exhaustion, Depersonalizations, Nurses, Dubai

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## 1. Introduction

Emotional reaction usually develop among human service

staff working with continuous emotional and physical stress.<sup>(1)</sup> This emotional reaction was described by Maslach & Jackson to yield “a progressive deterioration in work and

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other performance indicators”<sup>(2)</sup> Maslach emphasizes that burnout is not a problem related to an individual. Instead, her research indicates that burnout is a problem of the social environment in which people work and is a function of how people within that environment interact with one another and perform their jobs.<sup>(3)</sup> She notes that burnout is more likely when there is a "major mismatch between the nature of the job and the nature of the person who does the job".<sup>(4)</sup> These mismatches are at the core of the development of burnout. The term burnout is now usually limited to mean burnout as described by Maslach: a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment.<sup>(5)</sup>

Publications from 1980's till 1996, verified there were three core elements comprising the burnout syndrome. According to *Freudenberger*, (1974)<sup>(6)</sup> *Maslach* (1982),<sup>(7)</sup> and *Paine*, (1984)<sup>(8)</sup>: "Burnout is a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that occur among individuals who do "people work" of some kind".<sup>(6-9)</sup> "Emotional exhaustion (EE) is consequence of having high intensity, long term contact with service recipients. Depersonalization (DP) is the second element and refers to signs of detachment from service recipients beyond the requirement of professional distance; to the extent of seeing the recipients as objects and becoming indifferent when dealing with them. Personal accomplishment (PA) is the third component; which describes feeling of self-significance and self-worth. Low personal prospect leads to inefficiency and possibly withdrawal from making effort at work."<sup>(1,9,10)</sup>

Review paper by *Duquette et al.*'s, classified factors that appear to be linked to burnout in nurses as follows: "organizational" factors; like professional stressors, "buffering" factors, such as coping strategies and "demographic" factor including age, nursing post and experience<sup>(11)</sup>. Amid factors numerated, prolonged stress at work is claimed to be the most influential to burnout; especially when nurse's personal capacities are imbalanced against demands of work<sup>(6,10)</sup>. As interest grew about the concept of burnout, studies explored different aspects of professional's burnout. The initial research on antecedents and consequences of burnout began in the late 1970s in the United States of America (USA) but now extends to almost every country in the world. In fact burnout has now become a medical diagnosis in some countries.<sup>(12)</sup>

Burnout is labeled as work-related neurasthenia which combines psychological manifestations as well as physical symptoms which are diagnosed by set of symptoms and described in the International Classification Diseases ICD-10.<sup>(4, 13)</sup>

Nurses role in primary care clinics carry excessive and

sometimes complex workloads.<sup>(14)</sup> Nursing is a profession that requires investing considerable time and energy in relationships with others seeking treatment and care, often in demanding circumstances<sup>(15)</sup>. Burnout is likely to be heightened in these potentially intense and demanding relationships. The nursing environment also had elements likely to increase feelings of burnout including heavy workloads, lack of resources, lack of respect from doctors and little input into units' decision making.<sup>(16, 17)</sup>

Nursing vacancies persistently increase and turnover continues to affect productivity and moral of the nursing workforce. Other triggers of burnout are noise or other physical environment factors, lack of feedback on work, absence of meaningful reward system and lack of job security.<sup>(18)</sup> The line of more recent research examines burnout in health care professionals.

The changes in the density of nurses from 1970 to 2000 are shown in Table (2)<sup>(19)</sup> in some countries the density has increased dramatically and in others the figure is very low and has fallen. The poor social status of the nursing profession makes nursing an unattractive career choice for the nationals of some countries in the Arab region. The exception is Oman, which has successfully encouraged nationals to enter the profession through the establishment of district schools of nursing across the country.<sup>(20)</sup>

## 2. Objectives

To study the association between work nature and emotional exhaustion and depersonalization among nurses working at health care facilities in Dubai.

## 3. Methodology

A cross sectional study, targeting all nurses working at Dubai health Authority primary health care centers. Self-administered questionnaire was used to evaluate socio-demographic data, job characteristics of nurses Burnout inventory and employee satisfaction level. Burnout syndrome and satisfaction score was be calculated and nurses was classified accordingly. Data was collected from nurses employed at primary health care centers in Dubai Health Authority (DHA) through filling structured questionnaire. The total number of the population was 400. All Nurses working at Primary Health Centers in Dubai Health Authority were eligible to participate. convenient sample was adopted for the - The lowest limit of the sample size was calculated by OpenEpi software ([http://www.openepi.com/v37/Menu/OE\\_Menu.htm](http://www.openepi.com/v37/Menu/OE_Menu.htm)) using the following considerations Population size: 400, hypothesized % frequency of outcome factor in the population:

50%+/-5, Confidence limits as % of 100: 5%, and Design effect: 1. The size obtained was 197. Allowing 10% for non-response, the size will be: 217. The questionnaire is composed from 2 parts: Demographic and background variables, and Maslach burnout inventory (MBI).<sup>(3)</sup>

## 4. Results

Table (1) illustrates distribution of emotional exhaustion (EE) by work related data of nurses in Primary Health Centers, Dubai Health Authority in Dubai, UAE in 2013. High emotional exhaustion level related to the time needed to reach work ranged from (7.1%) for nurses who need less than 10 minutes to (20.0%) for nurses who need more than 50 minutes with statistically *insignificant* differences. As for nursing experience, high emotional exhaustion ranged from (14.4%) for nurses with 6-12 years of experience to (18.5%) for those with less than 5 years' experience with *no significance* recorded (P=0.678). Considering DHA experience, also *no significance* differences at the emotional

exhaustion levels were recorded which ranged from (7.7%) for nurses with DHA experience period more than 26 years to (18.4%) for others with an experience period from 16-26 years. Also (20.0%) of the nurses that were at administrative position recorded high emotional exhaustion level compared to (13.0%) in nurses working at community field with statistically *insignificant* differences. about (15.0%) of the nurses working for 8 hours daily and weekends had high emotional exhaustion levels and (16.8%) of those who had two shifts weekly. Regarding salary, nurses who receive higher salaries recorded a *significantly higher* emotional exhaustion level than others (32.7%) versus (11.9%), respectively, (P=0.002). Also (44.4%) of nurses who evaluate their tasks as an easy one had high level of emotional exhaustion. Considering intention to leave within 5 years, (35.9%) of the nurses who intend to leave their current unit recorded high emotional exhaustion level compared to (7.7%) of those who didn't with a recorded *statistical significance* (P=0.001).

**Table 1.** Distribution of emotional exhaustion/work related data of nurses in PHC, DHA- UAE 2013.

Work related data	Emotional exhaustion						X <sup>2</sup>	P
	Low		Moderate		High			
	No	%	No	%	No	%		
Time to work								
≤ 10min	13	92.9	0	0.0	1	7.1	8.3	0.218
≤ 30min	45	71.4	9	14.3	9	14.3		
≤ 50 min	62	63.3	21	21.4	15	15.3		
≥ 51 min	51	68.0	9	12.0	15	20.0		
Nursing experience in years								
≤5	20	74.1	2	7.4	5	18.5	3.9	0.678 <sup>^</sup>
6-15.9	87	69.6	20	16.0	18	14.4		
16-25.9	42	61.8	14	20.6	12	17.6		
≥26	22	73.3	3	10.0	5	16.7		
DHA experience in years								
≤5	54	70.1	10	13.0	13	16.9	4.2	0.655
6-15.9	79	71.2	15	13.5	17	15.3		
16-25.9	29	59.2	11	22.4	9	18.4		
≥26	9	69.2	3	23.1	1	7.7		
Work Nature								
Treatment	148	68.2	34	15.7	35	16.1	2.6	0.631 <sup>^</sup>
Home/community	15	65.2	5	21.7	3	13.0		
Administration	8	80.0	0	0.0	2	20.0		
Work day hours								
8 hours & weekend	166	69.5	35	14.6	38	15.9	4.1	0.129 <sup>^</sup>
Other	5	45.5	4	36.4	2	18.2		
Days at work								
7	15	75.0	2	10.0	3	15.0	1.2	0.880 <sup>^</sup>
6	154	68.1	36	15.9	36	15.9		
≤ 5	2	50.0	1	25.0	1	25.0		
Shifts/week								
No	39	81.3	3	6.3	6	12.5	5.2	0.074
Two	132	65.3	36	17.8	34	16.8		
Salary( Dirham's)								
≤ 2,500	145	72.1	32	15.9	24	11.9	12.7	0.002*
> 2,500	26	53.1	7	14.3	16	32.7		
Task Evaluation								
Difficult	27	58.7	8	17.4	11	23.9	10.2	0.037* <sup>^</sup>
Normal	139	71.3	31	15.9	25	12.8		
Easy	5	55.6	0	0.0	4	44.4		

Work related data	Emotional exhaustion						X <sup>2</sup>	P
	Low		Moderate		High			
	No	%	No	%	No	%		
Intention to leave within 5 years								
Current unit	17	43.6	8	20.5	14	35.9	23.8	0.001*
Current facility	24	58.5	8	19.5	9	22.0		
Field of nursing	28	70.0	5	12.5	7	17.5		
No	102	78.5	18	13.8	10	7.7		
Consider Nursing as								
Profession	163	69.4	37	15.7	35	14.9	3.6	0.167^
Job	8	53.3	2	13.3	5	33.3		

^ P value based on Mont Carlo exact probability, \* P < 0.05 (significant).

Table (2) demonstrates distribution of depersonalization (DP) by work related data of nurses in Primary Health Centers, Dubai Health Authority in UAE during 2013. We can see that none of the nurses who reach their works in less than 10 minutes had high depersonalization degree compared to (22.2%) of those who need 11-30 minutes and (20.0%) of those who need more than 50 minutes with statistically *insignificant* differences.

Considering Experience, the high depersonalization levels ranged from (10.0%) for nurses who are highly experienced (more than 26. years) to (20.6%) for others with experience period from 16-26 years but that recorded differences *wasn't statistically significant*. Also *no statistical significance* was recorded among the different periods of DHA experience as the high depersonalization levels ranged from (7.7%) for highly experienced nurses to (22.4%) for those with

experience years from 16-26.

None of the nurse working at administrative positions recorded high depersonalization level and only (17.2%) of the nurses work for 8 hours daily and weekends recorded high level compared to (18.8%) of the nurses who had two shift duties weekly and (16.4%) of those who had lower salaries (< 25000 Dirham's). about (22.0%) of the nurses who evaluate their tasks as easy recorded high depersonalization level compared to (15.2%) of those who consider it difficult one. Regarding intention to leave in 5 years; (11.5%) of the nurses who had no intention to leave had high depersonalization. Whereas (23.1%) of nurses who stated they intend to leave their current unit. Also (20.0%) of the nurses who consider nursing as a job had high depersonalization level. all the recorded differences at the different factors were *statistically insignificant*.

**Table 2.** Distribution of depersonalization/work related data of nurses in PHC, DHA- UAE – 2013.

Work related data	Depersonalization						X <sup>2</sup>	P
	Low		Moderate		High			
	No	%	No	%	No	%		
Time to work								
≤ 10min	10	71.4	4	28.6	0	0.0	6.7	0.345
≤ 30min	37	58.7	12	19.0	14	22.2		
≤ 50 min	62	63.3	24	24.5	12	12.2		
≥ 51 min	46	61.3	14	18.7	15	20.0		
Nursing experience in years								
≤5	19	70.4	5	18.5	3	11.1	3.0	0.805
6-15.9	76	60.8	28	22.4	21	16.8		
16-25.9	41	60.3	13	19.1	14	20.6		
≥26	19	63.3	8	26.7	3	10.0		
DHA experience in years								
≤5	51	66.2	13	16.9	13	16.9	4.1	0.669
6-15.9	69	62.2	26	23.4	16	14.4		
16-25.9	27	55.1	11	22.4	11	22.4		
≥26	8	61.5	4	30.8	1	7.7		
Work Nature								
Treatment	138	63.6	41	18.9	38	17.5	8.4	0.079^
Home/community	11	47.8	9	39.1	3	13.0		
Administration	6	60.0	4	40.0	0	0.0		
Work day hours								
8 hours*6days	147	61.5	51	21.3	41	17.2	2.3	0.321^
Other	8	72.7	3	27.3	0	0.0		
Days at work								
7	8	40.0	9	45.0	3	15.0	8.0	0.090^
6	144	63.7	44	19.5	38	16.8		
≤ 5	3	75.0	1	25.0	0	0.0		
Shifts/week							5.4	0.068

Work related data	Depersonalization						X <sup>2</sup>	P
	Low		Moderate		High			
	No	%	No	%	No	%		
No shifts	31	64.6	14	29.2	3	6.3		
Two	124	61.4	40	19.8	38	18.8		
Salary( Dirham's)								
≤ 2,500	123	61.2	45	22.4	33	16.4	0.40	0.818
> 2,500	32	65.3	9	18.4	8	16.3		
Task Evaluation								
Difficult	28	60.9	11	23.9	7	15.2	0.84	0.933
Normal	121	62.1	42	21.5	32	16.4		
Easy	6	66.7	1	11.1	2	22.2		
Intention to leave in 5 years								
Current unit	20	51.3	10	25.6	9	23.1		
Current facility	23	56.1	9	22.0	9	22.0	6.1	0.413
Field of nursing	25	62.5	7	17.5	8	20.0		
No	87	66.9	28	21.5	15	11.5		
Consider Nursing as Profession	146	62.1	51	21.7	38	16.2	0.16	0.925 <sup>^</sup>
Job	9	60.0	3	20.0	3	20.0		

<sup>^</sup> P value based on Mont Carlo exact probability.

## 5. Discussion

*Emotional exhaustion* is the most important and the strongest component of burnout reflecting an excessive workload and loss of autonomy at workplace.<sup>(21)</sup> Participants reported low emotional exhaustion, were mostly females aged (30–40) years and had been on the job for an average of (6-15.9) years, similar outcome was reported in 2008, in a study that highlights the relation between emotional exhaustion and gender, nursing profession and years of experience.<sup>(22)</sup> In the sample of primary care nurses in Dubai three significant correlations were established to emotional exhaustion component of the burnout trilogy. Significant correlation was found between high salaries and emotional exhaustion. Proportion of (32.7%) of nurses earning high salary reported high levels of emotional exhaustion while only (11.9%) of nurses receiving average wages reported high emotional exhaustion, ( $p=0.002$ ). The second significant predictor was engagement in physical activity. Ten per cent of nurses who practice sports had high emotional exhaustion compared to (17.5%) of those who didn't with statistically significant difference ( $P=0.050$ ). This finding highlights importance of physical activity in attaining health mind and body. Third correlation was with "nurse's intention to leave current job". (35.9%) of nurses who intend to leave their current jobs reported high levels of emotional exhaustion ( $p=0.001$ ). In the literature, emotional exhaustion was also reported to correlate with excessive workload, intensity of contact with patients, patients to health workers ratio and working shift duties.<sup>(22,23)</sup> Surprisingly, none of these variables were significantly associated with emotional exhaustion in the current study. This can be attributed to the fact that rates of low and moderated emotional exhaustion was quite high (84%), which may have limited the variance in the sample

and therefore minimizing the ability to distinguish nurses reporting high emotional exhaustion levels within the sample.

Participants also reported low levels of personal achievement and depersonalization. (21.4%) of nurses known to have one or more chronic disease had high level of depersonalization towards their patients, compared to (15.4%) of nurses with no chronic disease reporting high depersonalization levels. Furthermore, low depersonalization in the studied sample may have contributed to a moderate sense of job satisfaction. Personal accomplishment was low in the majority of sampled nurses (44.8%). Nurses aged (40) or more reports high personal accomplishment levels compared to younger nurses, the finding was expected in view of the diversity between the 2 groups in propensities of work experience, infield training, self-confidence and the chance to have attained higher education as reported by Chang, 2006<sup>(24)</sup> & Lin, 2009<sup>(25)</sup>. Nurses with a chronic disease recorded significantly higher levels of personal achievement (38.1%) compared to healthy nurses (26.0%) ( $P=0.039$ ). Considering BMI, none of the nurses with low BMI reported high personal achievement (0.0%) while (31.3%) of overweighted nurses reported high personal achievement levels, this finding represented a border line statistical significance ( $P=0.086$ ).

## 6. Conclusion

There are partial mediation effects of work nature, mainly through emotional exhaustion. Lead to increase voluntary turnover rate which seems to be an issue that should raise concern of health administrators in the region. Cost of turnover-a non-value-adding element in the organizational budget-forces managers to focus on retention.



## Recommendations

Open communication, and appreciation of impact of national culture on work attitudes. The status of nursing in the UAE should be enhanced in order to make it a worthwhile career. The media should engage in helping to promote a positive image of the nursing profession. The education sector should reconsider the length of nursing training (5 years compared with 3 years in many developed countries) while maintaining competent and safe practice. Reducing the financial burden on the nursing student through provision of additional financial support would encourage more students.

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