PREVALENCE OF COMPASSION FATIGUE/SATISFACTION AND BURNOUT SYNDROME AMONG CRITICAL CARE PHYSICIANS AND NURSES IN ALEXANDRIA UNIVERSITY HOSPITALS

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Introduction

"The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet" (Remen, 1996). Professional ethics and standards of care require physicians and nurses to keep secrets; they must live with the memories of split-second decisions often made by instinct and they can endure the multitude of patients' pain and suffering day after day.

Yet physicians and nurses are human beings who feel pain like everyone else. These demands, and the associated day-to-day challenges of working in healthcare, if not noticed and dealt with in a caring, compassionate manner, can take their toll on doctors and nurses, leading to mental health problems and reduced job satisfaction.

As a result of all the previous, we tried to shed some light on terms that appear to be unknown to many, such as, compassion fatigue, compassion satisfaction, burnout syndrome and secondary traumatic stress to help improve caregivers' experience with work, for the sake of both, the patients and the caregivers themselves.

Aim of the Work

The aim of this work was to estimate the prevalence of compassion fatigue/satisfaction and burnout syndrome among critical care physicians and nurses in Alexandria University Hospitals, to identify the risk factors among them and to know whether methods of psychological contemplation and convalescence from working in critical care are practiced.

Patients and Methods

The study was carried out on Critical Care physicians and nurses of both genders in the Critical Care Medicine Department in Alexandria University Hospitals, excluding those diagnosed with mental health issues (depression, anxiety).

A descriptive approach was selected where a cross sectional survey was conducted, after approval of the ethical committee of the faculty of medicine, University of Alexandria.

A questionnaire was presented to each physician and nurse; comprising three sections:

- Socio-demographic, occupational characteristics and previous exposure to stressful events.
- Professional Quality of Life Scale, is the most commonly used measure of the positive and negative effects of working with people who have experienced extremely stressful events. It is composed of 30 items, corresponding to three sub-scales: compassion satisfaction scale, burnout scale and secondary traumatic stress scale. The participants were asked to indicate how often during the last 30 days, each item was experienced.
- Psychological contemplation and convalescence from working in the field of critical care.

Results

Table 1: Comparison between the two studied groups according to different scores

No. % No. % No. % of sig. P Compassion Satisfaction Mild 14 6.7 8 7.4 6 5.9 c²= 0.316 0.854 Moderate 148 70.8 77 71.3 71 70.3 0.316 0.854 High 47 22.5 23 21.3 24 23.8 0.316 0.854 Min. – Max. 13.0 – 50.0 13.0 – 49.0 13.0 – 50.0 t=0.998 0.319 Median (IQR) 36.0 (30.0 – 41.0) 35.0 (29 – 40.5) 36.0 (31.0 – 41.0) t=0.998 0.319 Burnout Mild 16 7.7 7 6.5 9 8.9 c²= MCp= Moderate 186 89.0 98 90.7 88 87.1 0.767 0.735 Min. – Max. 13.0 – 45.0 17.0 – 44.0 13.0 – 45.0 t=1.184 0.238 Median (IQR) 30.0 (26.0 – 34.0) 30.0 (27.0 –										
No. % No. % No. % Using. Compassion Satisfaction Mild 14 6.7 8 7.4 6 5.9 c²= 0.316 0.854 High 47 22.5 23 21.3 24 23.8 0.316 0.854 Min. − Max. 13.0 − 50.0 13.0 − 49.0 13.0 − 50.0 13.0 − 50.0 t=0.998 0.319 Mean ± SD. 35.12 ± 8.03 34.58 ± 8.28 35.69 ± 7.76 t=0.998 0.319 Burnout Mild 16 7.7 7 6.5 9 8.9 c²= Mcp= 0.767 0.767 0.767 0.735 High 7 3.3 3 2.8 4 4.0 0.767 0.735 Mean ± SD. 30.07 ± 5.65 30.52 ± 5.28 29.59 ± 6.0 t=1.184 0.238 Median (IQR) 30.0 (26.0 − 34.0) 30.0 (27.0 − 34.0) 29.0 (26.0 − 34.0) 0.22 Mcp=		Total (n = 209)		Physician $(n = 108)$		Nurse (n = 101)		Test	n	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		No.	%	No.	%	No.	%	of sig.	P	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Compassion Satisfaction									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mild	14	6.7	8	7.4	6	5.9	~2_		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Moderate	148	70.8	77	71.3	71	70.3		0.854	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	High	47	22.5	23	21.3	24	23.8	0.310		
$\begin{array}{ c c c c c c c }\hline \text{Median (IQR)} & 36.0 & (30.0-41.0) & 35.0 & (29-40.5) & 36.0 & (31.0-41.0) \\ \hline \textbf{Burnout} \\ \hline & \text{Mild} & 16 & 7.7 & 7 & 6.5 & 9 & 8.9 \\ \hline & \text{Moderate} & 186 & 89.0 & 98 & 90.7 & 88 & 87.1 \\ \hline & \text{High} & 7 & 3.3 & 3 & 2.8 & 4 & 4.0 \\ \hline & \text{Min.} - \text{Max.} & 13.0-45.0 & 17.0-44.0 & 13.0-45.0 \\ \hline & \text{Mean} \pm \text{SD.} & 30.07 \pm 5.65 & 30.52 \pm 5.28 & 29.59 \pm 6.0 \\ \hline & \text{Median (IQR)} & 30.0 & (26.0-34.0) & 30.0 & (27.0-34.0) & 29.0 & (26.0-34.0) \\ \hline & \text{Secondary traumatic stress} \\ \hline & \text{Mild} & 26 & 12.4 & 11 & 10.2 & 15 & 14.9 \\ \hline & \text{Moderate} & 179 & 85.6 & 93 & 86.1 & 86 & 85.1 \\ \hline & \text{High} & 4 & 1.9 & 4 & 3.7 & 0 & 0.0 \\ \hline & \text{Min.} - \text{Max.} & 10.0-45.0 & 10.0-45.0 & 16.0-41.0 \\ \hline & \text{Mean} \pm \text{SD.} & 29.64 \pm 6.12 & 29.83 \pm 6.17 & 29.43 \pm 6.08 & t=0.480 & 0.631 \\ \hline \end{array}$	Min. – Max.	13.0 -	- 50.0	13.0	-49.0	13.0 - 50.0		t=0.998	0.319	
Burnout Mild 16 7.7 7 6.5 9 8.9 MCp= MCp= MCp= MCp= MCp= 0.767 MCp= 0.735 High 7 3.3 3 2.8 4 4.0 0.767 0.735 Min. – Max. 13.0 – 45.0 17.0 – 44.0 13.0 – 45.0 t=1.184 0.238 Mean ± SD. 30.07 ± 5.65 30.52 ± 5.28 29.59 ± 6.0 t=1.184 0.238 Median (IQR) 30.0 (26.0 – 34.0) 30.0 (27.0 – 34.0) 29.0 (26.0 – 34.0) t=1.184 0.238 Secondary traumatic stress Mild 26 12.4 11 10.2 15 14.9 c²= MCp= Moderate 179 85.6 93 86.1 86 85.1 4.363 0.122 High 4 1.9 4 3.7 0 0.0 0.0 0.122 Min. – Max. 10.0 – 45.0 10.0 – 45.0 16.0 – 41.0 1.0 0.6	Mean \pm SD.	35.12	± 8.03	34.58	8 ± 8.28	35.69 ± 7.76				
$\begin{array}{ c c c c c c c }\hline & Mild & 16 & 7.7 & 7 & 6.5 & 9 & 8.9 \\\hline & Moderate & 186 & 89.0 & 98 & 90.7 & 88 & 87.1 \\\hline & High & 7 & 3.3 & 3 & 2.8 & 4 & 4.0 \\\hline & Min Max. & 13.0 - 45.0 & 17.0 - 44.0 & 13.0 - 45.0 \\\hline & Mean \pm SD. & 30.07 \pm 5.65 & 30.52 \pm 5.28 & 29.59 \pm 6.0 \\\hline & Median (IQR) & 30.0 (26.0 - 34.0) & 30.0 (27.0 - 34.0) & 29.0 (26.0 - 34.0) \\\hline & Secondary traumatic stress \\\hline & Mild & 26 & 12.4 & 11 & 10.2 & 15 & 14.9 \\\hline & Moderate & 179 & 85.6 & 93 & 86.1 & 86 & 85.1 \\\hline & High & 4 & 1.9 & 4 & 3.7 & 0 & 0.0 \\\hline & Min Max. & 10.0 - 45.0 & 10.0 - 45.0 & 16.0 - 41.0 \\\hline & Mean \pm SD. & 29.64 \pm 6.12 & 29.83 \pm 6.17 & 29.43 \pm 6.08 \\\hline \end{array}$	Median (IQR)	36.0 (30.	0 - 41.0)	35.0 (2	29 - 40.5)	36.0 (31.0 – 41.0)				
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Min. – Max.	13.0 -	- 45.0	17.0 - 44.0		13.0 - 45.0				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Mean \pm SD.	30.07 ± 5.65		30.52 ± 5.28		29.59 ± 6.0		t=1.184	0.238	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Median (IQR)	30.0 (26.	0 - 34.0)	30.0 (2	7.0 - 34.0)	29.0 (26.0 – 34.0)				
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High 4 1.9 4 3.7 0 0.0 Min. – Max. $10.0 - 45.0$ $10.0 - 45.0$ $16.0 - 41.0$ Mean ± SD. 29.64 ± 6.12 29.83 ± 6.17 29.43 ± 6.08 $t=0.480$ 0.631	Moderate	179	85.6	93	86.1	86	85.1		_	
Mean \pm SD. 29.64 ± 6.12 29.83 ± 6.17 29.43 ± 6.08 $t=0.480$ 0.631	High	4	1.9	4	3.7	0	0.0	4.303	0.122	
	Min. – Max.	10.0 - 45.0		10.0 - 45.0		16.0 – 41.0		t=0.480	0.631	
Median (IOR) $30.0(25.0 - 34.0)$ $30.5(26.0 - 33.0)$ $29.0(25.0 - 34.0)$	Mean \pm SD.	29.64 ± 6.12		29.83 ± 6.17		29.43 ± 6.08				
1120diuli (1210) 30.0 (25.0 57.0) 30.5 (20.0 55.0) 27.0 (25.0 57.0)	Median (IQR)	30.0 (25.	0 - 34.0)	30.5 (20	6.0 - 33.0	29.0 (25.0 – 34.0)				

χ²: Chi square testp: p value for comparing between Physician and Nurse

MC: Monte Carlo test IQR: Inter quartile range

t: Student t test SD: Standard deviation

Table 2: Correlations between different scores in each group and total sample

	\mathbf{r}_{s}	P
Total (n = 209)		
Compassion Satisfaction vs Burnout	-0.474*	< 0.001*
Compassion Satisfaction vs Secondary traumatic stress	-0.134	0.054
Burnout vs Secondary traumatic stress	0.497^{*}	< 0.001*
Physician (n = 108)		
Compassion Satisfaction vs Burnout	-0.465*	< 0.001*
Compassion Satisfaction vs Secondary traumatic stress	-0.130	0.179
Burnout vs Secondary traumatic stress	0.546*	< 0.001*
Nurse (n = 101)		
Compassion Satisfaction vs Burnout	-0.462*	< 0.001*
Compassion Satisfaction vs Secondary traumatic stress	-0.130	0.196
Burnout vs Secondary traumatic stress	0.466*	< 0.001*

r_s: Spearman coefficient

*: Statistically significant at $p \le 0.05$

Conclusion

• From the present study we concluded that, the highest scores for burnout syndrome, secondary traumatic stress and compassion satisfaction among Alexandria University Hospitals critical care physicians and nurses were "Moderate". There were negative correlations between both compassion satisfaction and burnout syndrome and between compassion satisfaction and secondary traumatic stress for the total sample of the critical care physicians and nurses studied. However, there was a positive correlation between burnout syndrome and secondary traumatic stress.



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