

Evaluation of Hospital Employees Emotional Well-Being Post COVID-19 Surge

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In Northern New Jersey, hospitals were overwhelmed with surges of COVID-19 patients beginning in March, 2020. Front-line healthcare workers have borne the brunt in caring for these patients and have been exposed to high levels of stressful and traumatic events since. In this hospital, staff appeared stressed and exhausted.

Problem

Nurses and frontline staff were expressing:

- a) Fear
- b) Anger
- c) Abandonment
- d) Helplessness
- e) Terror
- f) Despair
- g) Dread
- h) Powerless
- i) Exhaustion
- j) Guilt
- k) Isolation
- l) Vulnerable

- “I’m waking up during the night , crying and short of breath and fearful”
- “I don’t know why I’m fighting with my husband he is not doing anything at all wrong I just pick fights with him””
- “I was sitting in my car crying, panicked.”
- “I was sitting in the parking lot, could not go into work called out sick from my car”
- “Please help us, I was walking out and saw a colleague crying in her car. I asked her if I could help. She replied I can’t do this anymore”
- “I have not held my children in so long, I am so sad”
- “I am afraid that I will bring this home to my family”
- “What if this doesn’t end?”

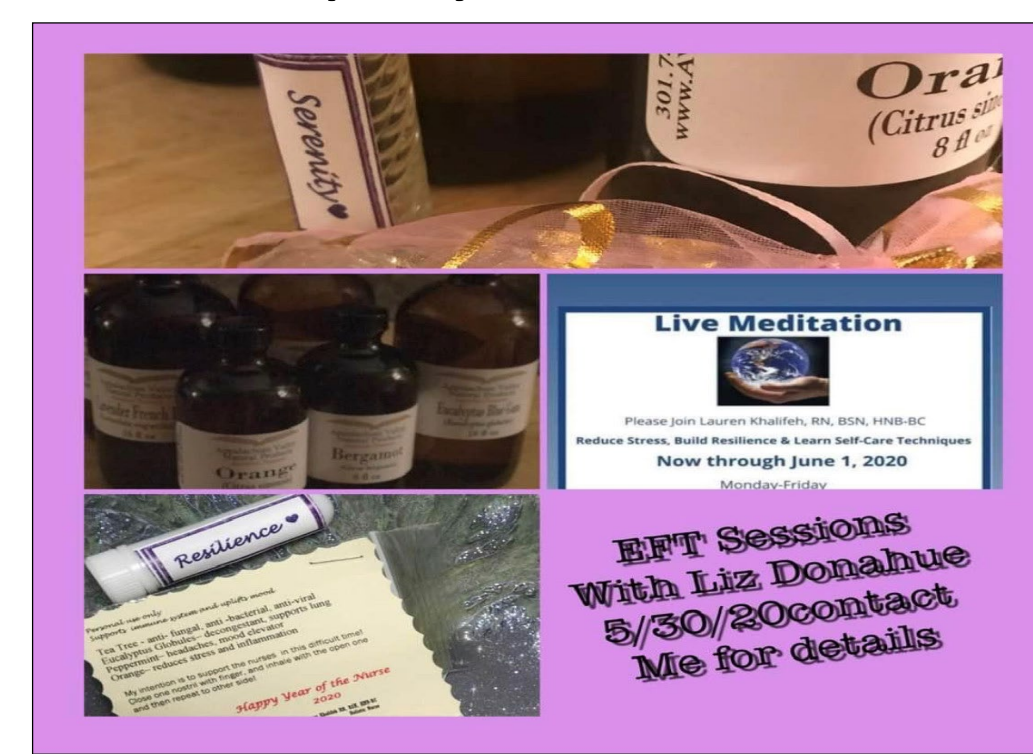
The phenomenon was system-wide and among all employees

Conceptual Framework

Relationship-Based Care® and Jean Watson’s theory of caring informed the project.

Purpose

- **Objective:** to assess emotional well-being among all employees who served during a recent COVID-19 surge, then and one year later, with valid instruments.
- **Goal:** to ensure that sufficient resources were available to support all employees.



Methodology

- **Hypothesis:** A significant number of staff will screen positive for anxiety, stress, depression, insomnia and post trauma stress resulting from experiences caring for high numbers of sick and dying COVID-19 pandemic patients at St. Joseph’s Health (SJH)
- A SurveyMonkey® Questionnaire was designed that included demographics and five valid and reliable instruments:
 - Depression-** Patient Health Questionnaire (PHQ-9)
 - Stress-** Perceived Stress Scale (PSS)
 - Insomnia-** Insomnia Severity Index (ISI)
 - Anxiety-** Generalized Anxiety Disorder Scale (GAD-7)
 - Post Traumatic Stress-** Trauma Screening Questionnaire (TSQ)
- The survey was opened for 2 week periods.
- Emailed to “everyone” at SJH in September 2020 and again in September 2021.
- Consent was implied with completion of the survey

Results

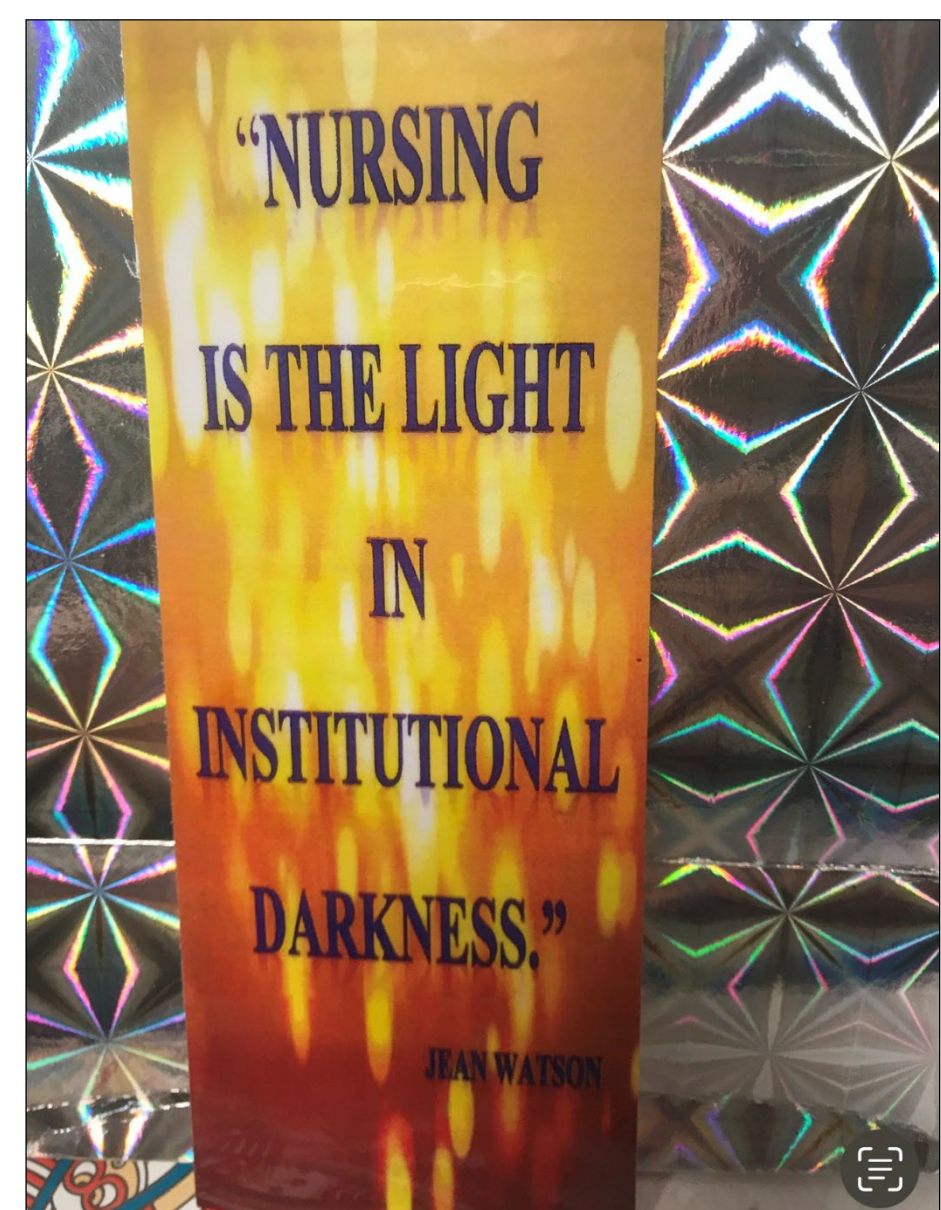
Did you work on a unit with COVID19 patients?				
	Depression	Stress	Insomnia	Anxiety
Time 2 870 respondents	n=526 (87%) T: 3.34(1); p=0.001 Mod-Severe- no= 10% (14/138) Severe- no= 4% (4/138) Mod-Severe- yes= 9% (12/138) Severe- yes= 8% (12/138)	n=516 (77%) F: 4.26(4); p=0.001 Moderate- no= 46% (11/23) High- no= 5% (1/23) Moderate- yes= 55% (14/23) High- yes= 13% (3/23)	n=480 (80%) F: 4.48; p=0.001 Moderate- no= 23% (12/52) Severe- no= 8% (4/52) Moderate- yes= 31% (16/52) Severe- yes= 9% (5/52)	n=451 (67%) F: 5.00; p=0.001 Moderate- no= 12% (12/103) Severe- no= 9% (9/103) Moderate- yes= 19% (19/103) Severe- yes= 16% (16/103)
	Most- Nursing 9.01 Least- Administration 7.62 F: 1.04; p= 0.39	Most- Nursing 13.72 Least- Administration 14.82 F: 1.24; p= 0.29	Most- Nursing 13.72 Least- Administration 10.83 F: 2.85; p= 0.02	Most- Nursing 8.66 Least- Admin support 6.78 F: 2.09; p= 0.08
Time 1 1208 respondents	n= 1013 (84%) F: 0.146; p= 0.001 Mod-Severe- no=5% (14/28) Severe- no= 1% (1/28) Mod-Severe- yes= 6% (16/28) Severe- yes= 2% (5/28)	n= 883 (73%) F: 0.001; p= 0.769 Moderate- no=86% (14/16) Severe- no= 5% (1/20) Moderate- yes= 86% (14/16) Severe- yes= 6% (1/16)	N=954 (79%) F: 1.008; p= 0.648 Moderate- no= 88% (14/16) Severe- no= 5% (1/20) Moderate- yes= 85% (14/16) Severe- yes= 8% (1/12)	N= 901 (75%) F: 2.868; p= 0.021 Moderate- no= 9% (14/154) Severe- no= 3% (5/154) Moderate- yes= 11% (17/154) Severe- yes= 4% (6/154)
	Most Nursing 1.88 Least Physicians 1.33 F: 5.0; p= 0.001	Most Physician 2.03 Least Administration 1.92 F: 1.76; p= 0.135	Most Administration 3.03 Least Physicians 2.87 F: 1.53; p= 0.191	Most Nursing 1.70 Least Physicians 0.07 F: 4.28; p= 0.002
	Most Nursing 0.34 Least Physicians 0.07 F: 5.10; p= 0.000			

- Employees who worked on a unit with COVID-19 patients were significantly more likely to have higher levels of depression, and anxiety than those who did not.
- PTSD was worse at time one for all employees
- For all respondents Stress, Insomnia and Positive PTSD Screen significantly decreased over time
- Nurses had significantly higher depression, anxiety and PTSD at time one and scored highest among worker types in all emotions at time two
- All employees had higher percentages of “moderate to severe” emotions at time two



Conclusion

At 3-months post initial COVID-19 surge and one year later, employees who worked on a unit with COVID-19 patients were significantly more likely to have emotional distress than those who did not. Results, shared with administrators, have served as the impetus for creating even more robust support structures for employees as they continue to trudge through a seemingly never-ending sea of COVID-19 patients.



Reference Literature

- Brewin C, Rose S, Andrews B, Green J, Tata P, McEvedy C, Turner S & Foa EB (2002). Brief screening instrument for post-traumatic stress disorder. *British Journal of Psychiatry*, 181: 158-162.
- Jianbo Lai, MSc; Simeng Ma, MSc; Ying Wang, MSc; Zhongxiang Cai, MD; Jianbo Hu, MSc; Ning Wei, MD; Jiang Wu, MD; Hui Du, MD; Tingting Chen, MD; Ruiling Li, MD; Huawei Tan, MD; Lijun Kang, MSc; Lihua Yao, MD; Manli Huang, MD; Huafen Wang, BD; Gaochun Wang, MD; Zhongchun Liu, MD; Shaohua Hu, MD (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Open*. 2020;3(3):e203976. doi:10.1001/jamanetworkopen.2020.3976 Retrieved July 2, 2020
- Kroenke K, Spitzer RL, & Williams JBW (2001). Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9): 606-613.
- Lee EH (2012). Review of the psychometric evidence of the perceived stress scale. *Asian Nursing research*, 6: 121-127.)
- Letvak, S., Ruhm, C., & McCoy, T. (2012) Depression in Hospital Employed Nurses. *Clinical Nurse Specialist*. 26(3):177-82. Doi: 10.1097/NUR.0b013e3182503ef0
- Lowe, B, Decker O, Muller, S, Brahler, E, Schellberg D, Herzog W & Herzberg PY (2008). Validation and Standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the General Population. *Medical Care*, 46: 266-274.
- Mata, D., Ramos, M., Bansal, N et al. Prevalence of depression and depressive symptoms among resident physicians: A systematic review and meta-analysis. *JAMA* 2015; 314: 2373-83.
- Marrero-González, C. M., & García-Hernández, A. M. (2017). Phenomenology of nurses' feelings in the professional context of Tenerife (Spain). *Ene*, 11(1), 11. <https://doi.org/10.14198/cuid.2018.51.02>
- McHugh, M., Kutney-Lee, A., Cimiotti, J., Sloan, D., & Alken, L. (2011). Nurses widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs*. 30: 202-10.
- Morin CM, Beebeville G, Belanger L & Ivers H (2011). The Insomnia Severity Index: Psychometric indicators to detect insomnia cases and evaluate treatment responses. *Sleep*, 34(5): 601-608.
- Mouthaan J, Sijbrandi M, Reitsma JB, Gersons BPR & Off M (2014). Comparing Screening Instruments to Predict Posttraumatic stress disorder. *PLoS*, 9(5): e97183. doi: 10.1371/journal.pone.0097183
- Rodolfo Rossi, MD; Valentina Socci, PhD; Francesca Pacitti, MD; Giorgio Di Lorenzo, MD; Antinica Di Marco, PhD; Alberto Siracusano, MD; Alessandro Rossi, MD. Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy. *JAMA Open*. 2020;3(5):e2010185. doi:10.1001/jamanetworkopen.2020.10185 (Retrieved July 2, 2020).
- Rutter LA & Brown TA (2017). Psychometric properties of the generalized anxiety disorder scale-7 (GAD-7) in outpatients with anxiety and mood disorders. *Journal of psychopathological behavior*, 39(1): 140-146.
- Spitzer RL, Kroenke K, Williams JBW & Lowe B (2006). A Brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, 166: 1092-1097.
- Zeng, Y & Zhen, Y. Chinese medical staff request international medical assistance in fighting against COVID-19. *Lancet Global Health*, 2020