

DEPRESSION, ANXIETY AND STRESS LEVELS AMONG FRONTLINERS OF HOSPITAL-BASED (SASMEC) AND UNIVERSITY CAMPUS (IIUM Kuantan) DURING COVID-19 PANDEMIC AND ITS ASSOCIATED FACTORS

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INTRODUCTION

The COVID-19 pandemic has instigated a substantial physical and psychological burden on the frontliners globally, which lead to harmful consequences on emotional and mental health such as physical and psychiatric disorders, reduction in productivity, loss of commitment and burnout. Hence, assessing their mental health status is essential as an access point in providing appropriate mental health care. This study aimed to measure depression, anxiety, and stress level and their associated factors among the frontliners working at the International Islamic University Malaysia (IIUM) Kuantan Campus and IIUM-Hospital (SASMEC) during the COVID-19 pandemic.

METHODOLOGY

A cross-sectional study was conducted from March 2021 to March 2023 among 261 frontliners working in IIUM Hospital and 125 from IIUM Kuantan campus. Depression, anxiety and stress levels were measured using a self-administered validated DASS-21 questionnaire. The preliminary data were entered into IBM SPSS version 26.0, and analyzed using descriptive statistics and Chi-Square or Fisher's Exact test if the assumptions were not met for Chi-Square test.

RESULTS & DISCUSSION

Among the 386 participants, majority were categorized as clinical frontliners (82.1%), female (65.8%) and married (65.8%). Majority non-clinical frontliners (17.9%) were from the security unit (OSEM), Mahallah administration and transportation of IIUM Campus.

The study showed that the prevalence of depression, anxiety, and stress among the frontliners were 15.8%, 29.5% and 9.3%, respectively. This study found that depression, anxiety, and stress levels of the frontliners between IIUM Hospital and IIUM Kuantan campus were not statistically different as shown in Figure 1.

Depression and anxiety had a significant association with those who had post-traumatic events, while those with chronic diseases were associated with anxiety (Table 1). Severe and very severe DASS score were offered a psychoeducational counseling for intervention.

Figure 1: Percentage of Frontliners According to the Depression, Anxiety and Stress Levels Between IIUM (SASMEC) Hospital And IIUM Kuantan Campus (n = 386)

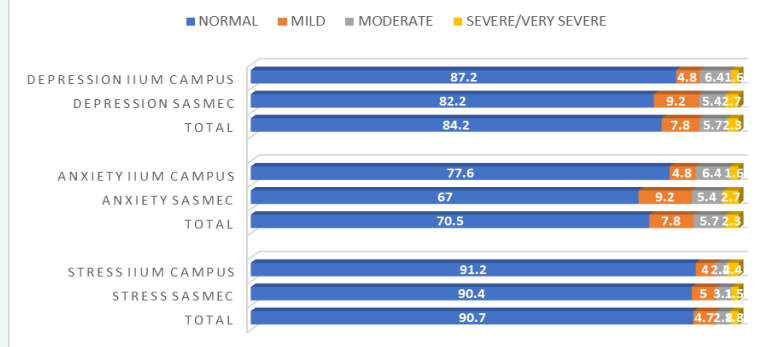


Table 1: Association between Depression, Anxiety And Stress with Sociodemographic Factors Among Frontliners (Chi-Square Test, n = 386)

Demographic	Depression (n=61)			Anxiety (n=114)			Stress (n=36)		
	Yes (n=61) n (%)	No (n=325) n (%)	p-value	Yes (n=114) n (%)	No (n=272) n (%)	p-value	Yes (n=36) n (%)	No (n=350) n (%)	p-value
Gender Male (n=132) Female (n=254)	19 (31.1) 42 (68.9)	113 (34.8) 212 (65.2)	0.826	44 (38.6) 70 (61.4)	88 (32.4) 184 (67.6)	0.104	15 (41.7) 21 (58.3)	117 (33.4) 233 (66.6)	0.900
Marital Status Single (n=131) Married (n=255)	27 (44.3) 34 (55.7)	104 (32.0) 221 (68.0)	0.382	47 (41.2) 67 (58.8)	84 (30.9) 188 (69.1)	0.644	8 (22.2) 28 (77.8)	123 (35.1) 227 (64.9)	0.697
Age Group 20-30 (n=215) 31-40 (n=134) ≥ 41 (n=37)	35 (57.4) 22 (36.1) 4 (6.6)	180 (55.4) 112 (34.5) 33 (10.1)	0.142 [*]	72 (63.2) 34 (29.8) 8 (7.0)	143 (52.6) 100 (36.8) 29 (10.7)	0.174	18 (50.0) 14 (38.9) 4 (11.1)	197 (56.3) 120 (34.3) 33 (9.4)	0.403 [*]
Ever Smoking Yes (n=45) No (n=341)	5 (8.2) 56 (91.8)	40 (12.3) 285 (87.7)	0.532 [*]	13 (11.4) 101 (88.6)	32 (11.8) 240 (88.2)	0.674	4 (11.1) 32 (88.9)	41 (11.7) 309 (88.3)	0.365 [*]
Traumatic Event** Yes (n=27) No (n=359)	9 (14.8) 52 (85.2)	18 (5.5) 307 (94.5)	<0.001	10 (8.8) 104 (91.2)	17 (6.3) 255 (93.7)	0.001	9 (25.0) 27 (75.0)	18 (5.1) 332 (94.9)	0.460
Chronic Diseases Yes (n=32) No (n=354)	6 (9.8) 55 (90.2)	26 (8.0) 299 (92.0)	0.066	9 (7.9) 105 (92.1)	23 (8.5) 249 (91.5)	0.034	7 (19.4) 29 (80.6)	25 (7.1) 325 (92.9)	0.990
Working place Hospital (n=261) Campus (n=125)	45 (73.8) 16 (26.2)	216 (66.5) 109 (33.5)	0.921	86 (75.4) 28 (24.6)	175 (64.3) 97 (35.7)	0.309	25 (69.4) 11 (30.6)	236 (67.4) 114 (32.6)	0.652
Post Clinical (n=317) Non-clinical (n=69)	52 (85.2) 9 (14.8)	265 (81.5) 60 (18.5)	0.781	97 (85.1) 17 (14.9)	220 (80.9) 52 (19.1)	0.326	31 (86.1) 5 (13.9)	286 (81.7) 64 (18.3)	0.714

* Fisher's Exact Test **Traumatic event for the past 6 months such as terminal diseases, disaster, divorce or death.

CONCLUSION

Additional intervention is needed for those with post-traumatic events (such as a terminal disease, disaster, divorce, and death) and chronic diseases to cope with their depression and anxiety. There was no difference in anxiety, depression and stress levels among the frontliners between the clinical and non-clinical and between those at hospital-based or university campus, hence mandate a global mental health promotion and timely intervention to all frontliners regardless of their post or area of services.

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REFERENCES

- Xiong, J., Lipsitz, O., Nasri, F., Lui, L., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of affective disorders* [Internet]. 2020 Aug [cited 2020 Nov 16]; 277:55-64. <https://doi.org/10.1016/j.jad.2020.08.001>
- Musa, R., Fadzil, M. A., & Zain, Z. (2007). Translation, Validation and Psychometric Properties of Bahasa Malaysia Version of the Depression Anxiety and Stress Scales (DASS). *ASEAN Journal of Psychiatry*, 8, 82-89.
- Cochrane library. Coronavirus (COVID-19): support for wellbeing in the healthcare workforce. [Internet]. 5 November 2020. Available from <https://www.cochranelibrary.com/collections/doi/SC000045/full#>