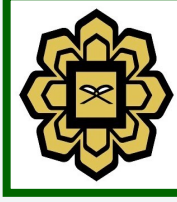


DEPRESSION, ANXIETY AND STRESS LEVELS AMONG FRONTLINERS OF HOSPITAL-BASED (SASMEC) AND UNIVERSITY CAMPUS (IIUM Kuantan) DURING COVID-19 PANDEMIC AND ITS ASSOCIATED FACTORS



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INTRODUCTION

The COVID-19 pandemic or endemic 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 SASMEC-Hospital during the COVID-19 pandemic.

METHODOLOGY

A cross-sectional study was conducted from March 2021 to March 2023 among 261 frontliners working in SASMEC-Hospital and 125 from IIUM-Kuantan campus. Depression, anxiety and stress were measured using a self-administered validated DASS-21 questionnaire. Study analysis and comparison of variables were performed by using Chi-square test, paired sample "t" test, and ANOVA "F" test.

RESULTS & DISCUSSION

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

Table-1 Comparing Demographic Background of Frontliners Between SASMEC-Hospital and IIUM-Kuantan Campus (n=386)

Bio-Demographic	Frontliners		Total n (%)	"p"
	SASMEC (n=261) n (%)	IIUM KUANTAN (n=125) n (%)		
Gender				
Male	79 (30.3)	53 (42.4)	132 (34.2)	0.019
Female	182 (67.9)	72 (57.6)	254 (65.8)	
Age Group years				<0.001*
20-30	183 (70.1)	32 (25.6)	215 (55.7)	
31-40	74 (28.4)	60 (48.0)	134 (34.7)	
≥ 41	4 (1.5)	33 (26.4)	37 (9.6)	
Marital Status				0.015*
Single	101 (38.7)	30 (24.0)	131 (33.9)	
Married	157 (60.2)	94 (75.2)	251 (65.0)	
Divorce/Widow	3 (1.1)	1 (0.8)	4 (1.0)	
Ever Smoking				0.066
- Yes	25 (9.6)	20 (16.0)	45 (11.7)	
- No	236 (90.4)	105 (84.0)	341 (88.3)	
Traumatic Event				0.336
Yes	16 (6.1)	11 (8.8)	27 (7.0)	
No	245 (93.9)	114 (91.2)	359 (93.0)	
Chronic Disease/s				<0.001
Yes	11 (4.2)	21 (16.8)	32 (8.3)	
No	250 (95.8)	104 (83.2)	354 (91.7)	

* Comparisons were analyzed using Fisher's Exact Test

**Traumatic event for the past 6 months such as terminal diseases, disaster, divorce or death.

Those aged 31 years and above, married and having chronic disease/s were found higher among IIUM-Kuantan campus frontliners than those from SASMEC-hospital.

The study showed the prevalence of depression, anxiety, and stress among frontliners were 15.8%, 29.5% and 9.3%, respectively.

Table 2 Percentage of Frontliners According to the DASS Levels Between SASMEC-Hospital And IIUM-Kuantan Campus

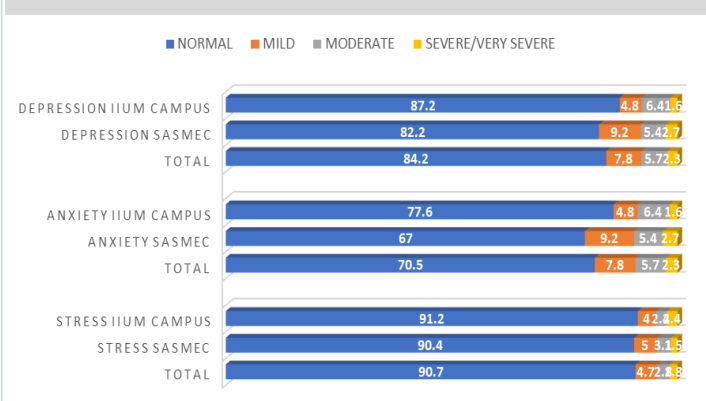
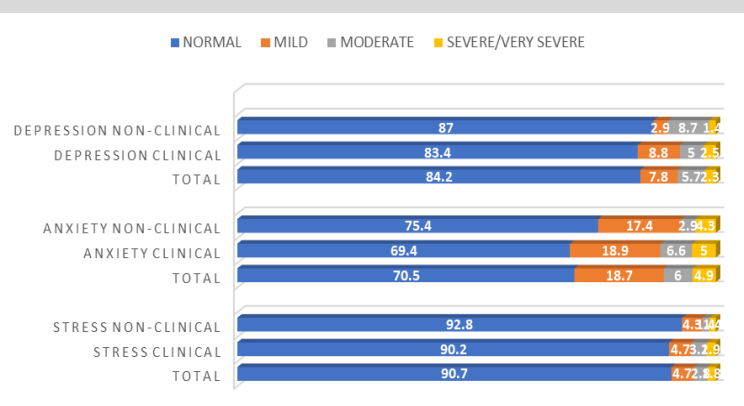


Table 3 Percentage of Frontliners According to the DASS Levels Between Clinical and Non-Clinical



This study found that depression, anxiety, and stress levels of frontliners between SASMEC-hospital and IIUM-Kuantan campus, and between clinical and non-clinical were not statistically different.

Table-4: Factors Associated With The Depression, Anxiety And Stress Among Frontliners

Demographic	Depression (n=61)			Anxiety (n=114)			Stress (n=36)		
	n (%)	mean (SD)	p	n (%)	mean (SD)	p	n (%)	mean (SD)	p
Gender									
Male	19 (31.1)	7.6 (2.8)	0.826	44 (38.6)	5.3 (1.6)	0.104	15 (41.7)	9.7 (1.7)	0.900
Female	42 (68.9)	7.4 (3.5)		70 (61.4)	6.1 (2.8)		21 (58.3)	10.9 (3.1)	
Marital Status									
Single	27 (44.3)	7.1 (2.3)	0.382	47 (41.2)	5.6 (2.3)	0.644	8 (22.2)	10.6 (2.4)	0.697
Married	34 (55.7)	7.8 (3.9)		67 (58.8)	5.9 (2.5)		28 (77.8)	10.3 (2.8)	
Age Group									
20-30	35 (57.4)	6.9 (2.1)	0.142*	72 (63.2)	5.5 (1.8)	0.174	18 (50.0)	9.8 (1.7)	0.403*
31-40	22 (36.1)	8.1 (4.5)		34 (29.8)	6.4 (3.1)		14 (38.9)	11.1 (3.7)	
≥ 41	4 (6.6)	9.8 (3.0)		8 (7.0)	6.1 (3.3)		4 (11.1)	10.5 (1.9)	
Ever Smoking									
Yes	5 (8.2)	6.6 (1.8)	0.532*	13 (11.4)	5.5 (1.9)	0.674	4 (11.1)	9.3 (1.3)	0.365*
No	56 (91.8)	7.6 (3.4)		101 (88.6)	5.8 (2.5)		32 (88.9)	10.6 (2.8)	
Traumatic Event									
Yes	9 (14.8)	10.9 (4.1)	<0.001	10 (8.8)	8.1 (4.3)	0.001	9 (25.0)	11.0 (3.3)	0.460
No	52 (85.2)	6.9 (2.8)		104 (91.2)	5.6 (2.1)		27 (75.0)	10.2 (0.5)	
Chronic Diseases									
Yes	6 (9.8)	9.8 (4.7)	0.066	9 (7.9)	7.4 (3.3)	0.034	7 (19.4)	10.4 (2.6)	0.990
No	55 (90.2)	7.2 (3.1)		105 (92.1)	5.7 (2.3)		29 (80.6)	10.4 (2.8)	

* Comparisons were analyzed using Fisher's Exact Test

**Traumatic event for the past 6 months such as terminal diseases, disaster, divorce or death.

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

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.

ACKNOWLEDGEMENTS

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ABSTRACT BOOK

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Introduction: The COVID-19 pandemic has instigated a substantial physical and psychological load on the frontliners, leading to physical and psychiatric ailments, 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. **Objectives:** To measure depression, anxiety, and stress level and their associated factors among the frontliners working at the International Islamic University Malaysia Kuantan Campus (IIUM) and IIUM Hospital (SASMEC) during the COVID-19 pandemic. **Methods:** A cross-sectional study was conducted among 261 frontliners working in SASMEC and 125 from IIUM from March 2021-March 2023. Depression, anxiety and stress were measured using a self-administered validated DASS-21 questionnaire, and the data were analyzed using descriptive statistics and multiple linear regression. **Results:** Among the 386 participants, 82.1% were categorized as clinical frontliners. Those aged 31 years and above, married and having chronic disease/s were significantly higher among IIUM frontliners than those from SASMEC. The prevalence of overall depression, anxiety, and stress of frontliners were 15.8%, 29.5% and 9.3%, respectively, which is not significantly different between SASMEC and IIUM. Depression, anxiety, and stress levels between the clinical and non-clinical frontliners were also not different statistically. The frontliners with the post-traumatic event had a significant association with depression (4.1%) and anxiety (4.3%), and those with chronic disease were significantly associated with anxiety (3.3%). **Conclusion:** Additional intervention is needed for those with post-traumatic events (such as a terminal disease, disaster, divorce, and death) and who suffer from chronic disease/s to cope with depression and/or anxiety. There was no significant difference in anxiety, depression and stress levels between the clinical and non-clinical frontliners or between hospital-based and university campus frontliners, which mandate a global mental health promotion and timely intervention to all frontliners regardless of their post or area of services.