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Knowledge assessment of the employees in Heart Center about the Psychological risk of the occupation in Al-Nasiriyah - Dhi-Qar Governorate during COVID 19 Pandemic: A cross-section study

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***Abstract*—Background: The COVID-19 pandemic has created a massive psychosocial situation for healthcare professionals due to workplace conditions. This study is to assess the knowledge of employees in Al-Nasiriyah heart center about psychological risk of occupational hazard during COVID-19 pandemic. Methodology:** A **descriptive cross-sectional study includes random sample of 300 employee from Al-Nasiriyah heart center. A questionnaire was constructed according to five-point Likert scales by direct interviews. Results: 94.3% of employees' response of knowledge about psychological risk of was found to be at statement number six "During Corona pandemic, as a health-care provider, you are afraid of transferring the infection to family members". While 28% was found to be with the statement number 14: "The decision makers at the institution provide psychological support to the cadre at the heart center through material privileges and praise for their performance." A statistical significance was found in the employees' responses for all the statements included in the assessment except for the tenth one: "During Corona pandemic, as a health care provider, you feel afraid of quarantine and isolation": and statement number 13: "During Corona pandemic, as a health care provider, you feel job dissatisfaction as a result of work pressures".Conclusions: most of employees in Al Nasiriyah Heart Center have good knowledge about the psychological hazard at the work place during COVID-19 pandemic including stress, fair from infection and fatigue from workloads.**

Keyword: Employees' knowledge, psychological risk, COVID-19, AL Nasiriyah Heart Center

I. INTRODUCTION

Occupational risks are a serious medical, social, and economic issue, as well as a primary cause of illness and mortality among health care employees (Daham,et al .,2020). Employees in the healthcare sector face many hazards as a result of their jobs, including biological agents, chemical agents, physical factors and psychosocial factors. (Almayahi etal.,2021) Psychological distress is especially prevalent among healthcare workers (HCW) during these pandemic conditions. (Salari et al.,2020), (Santabárbara et al.,2021) They are at risk of being infected by SARS-CoV-2 because they perceive a higher level of risk, lack of personal protective equipment (PPE), a restricted treatment option for COVID-19 patients, stigma and discrimination because of their profession, and fear of infecting their loved ones. (R.B McFee.,2020),Workers can be exposed to psychological and physical risks through exposure to psychosocial risks via stress-mediated pathways (Eurofound.,2022). Additionally, it is possible for an organisation to be affected by psychosocial risks (e.g., absenteeism, high turnover, and organizational commitment) (Hupke et al.,2020) The sources of psychosocial risks are numerous, including:

(1) “Job content, e.g., conflicting demands, lack of role clarity, lack of training and development opportunities, and lack of workers’ influence over the way the job is done”.

(2) “Work organisation and management, e.g., excessive workloads and work intensity, lack of workers’ involvement in making decisions that affect the worker, poorly managed organisational changes, ineffective communication, working time arrangements, and poor work-life balance”.

(3) “The social context of the job, e.g., lack of support from management or colleagues, psychological and sexual harassment, third-party violence, and job insecurity” (EU-OSHA.,2020). **Objectives of study:** To assess the employees’ knowledge in Al-Nasiriyah heart center about the psychological risks during COVID-19 pandemic.

II. Subjects and Methods

The approvals have been taken from Southern Technical University – Iraq, Training and Human Development Centre/Thi-Qar Health Directorate, and Nasiriyah Heart Centre to conduct this study. The design of this study was a cross-sectional study. A total of 300 employees were collected from Nasiriyah heart center / Iraq which included face to face interviews different profession working (physician, pharmacists, medical laboratory workers, nursing staff, administrators, service workers) .

Questionnaire was constructed according to five-point Likert scales to describe the occupational risk exposure to the employees, which included the fallowing paragraphs: Sociodemographic, Occupational information’s, psychological hazard. Data have been collected during the period from 1\ November \2021 to 1\ May \2022, Descriptive statistics were performed by Pearson's chi-square test and Fisher's exact test; p*0.05 was considered statistically significant.

III. RESULTS AND DISCUSSION

This to assess the knowledge of employees about psychological risk of occupational hazard in Thi-Qar province - Iraq. Figure one shows that distribution of study population according to age group. The highest percentage of employees (60.4%) was found to be among the age group 20-29 years old, while the lowest percentage (14.3%) was found to be among the age group 40->49. The mean±SD of age of employees in AL Nasiriya Heart Center was 30 ±7.456. In addition, 53% of the total population was found to be males compared to 47% as females (Figure 2) with 55% of them were found to be married, 42.3 % as single and 2.7% as divorced as shows in (Figure3). From our point of view, these results may be due to the increasing number of medical institutes and colleges as well as the number of graduates registered in direct employment by the Ministry of Health which is higher than before in Iraq as a result of the COVID- 19 pandemic and the increasing need of these specialists in healthcare system.

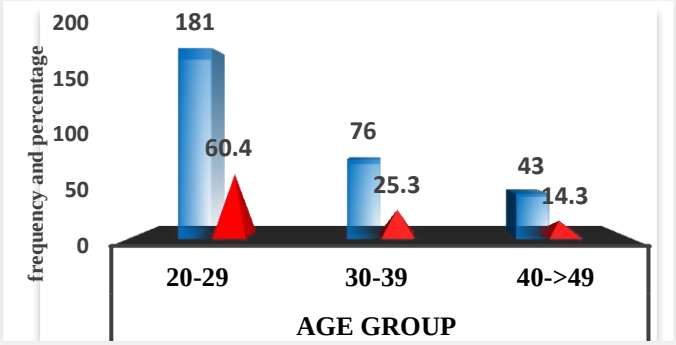
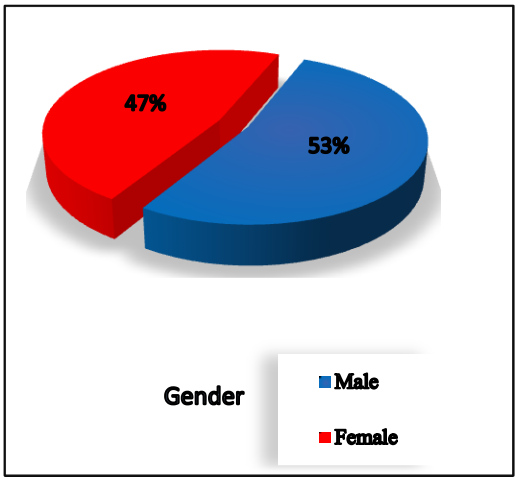


Figure 1 Distribution of the study population according to age group



Figure(2):Distribution of the study population according to gender

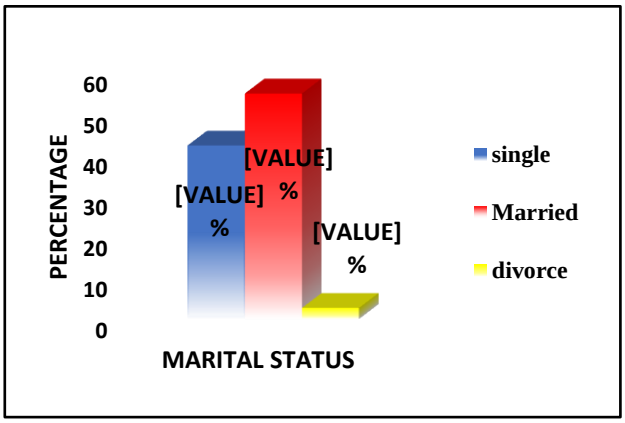


Figure (3): Distribution of the study population according to Marital status

Regarding the level of education, the highest percentage found to be among employees holding bachelor’s degree (44.3%). 42.3% of the employee at the center were nurses with only 3% as biomedical engineers. (Figure 4,5). The result of the study revealed that in AL Nasiriyah Heart Center, the nurse/doctor

ratio is 3.2 (126 nurses and 39 doctors). This can be compared to a much different ratio in other countries like Pakistan with 2.7 doctors to one nurse, as stated by Hamid et al in their study in 2013 compared to 4:1 as the recommended nurse to doctor ratio. (Hamid et al.,2013)

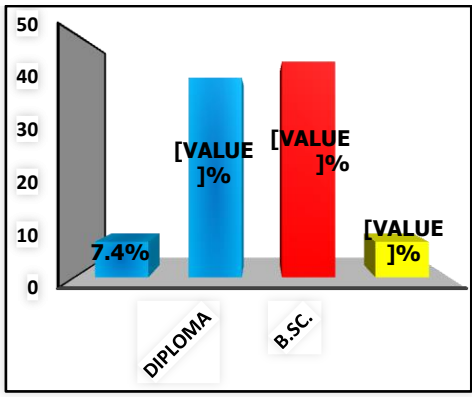


Figure (4): Distribution of the study population according to education

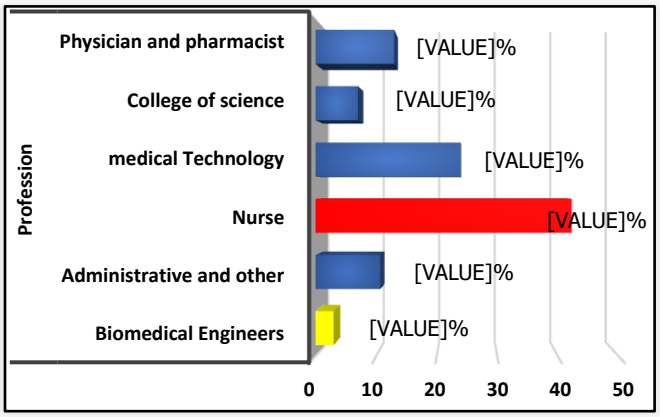


Figure (5): Distribution of the study population according to Profession

Table 1 shows the distribution of employee's answers about psychological risk of occupational hazard. The highest percentage of agreement response was found to be at statement number six: "During Corona pandemic, as a health-care provider, you are afraid of transferring the infection to family members." with 94.3% response rate (69% of them strongly agree+25.3%). While the lowest was found to be at statement number 14: "The decision makers at the institution provide psychological support to the cadre at the heart center through material privileges and praise for their performance." with 28% of the respondents' agreement.

This result is close to several studies like study carried by Zhu et al which found that the psychological support for medical workers during COVID 19 was 2.4% (Zhu et al.,2020). Another study reported that the proportion of medical staff with moderate to severe fear from infection was 70.6% with a statistical significance at p<0.001 (Lu et al.,2020).

Another researcher: Senek et al in his across sectional study, reported that the statistical significance in the lack of adequate support and supervision (p < 0.001). (Senek et al.,2021)

Furthermore, the current study found a statical significance (p value <0.05) in the respondents' agreement with all of the assessment statements except for the tenth one: "During Corona pandemic, as a health care provider, you feel afraid of quarantine and isolation": (P.value 0.423) and statement number 13: "During Corona pandemic, as a health care provider, you feel job dissatisfaction as a result of work pressures "(with P.value of: 0.650). This finding is similar to a study carried by Zhu et al which found a non-significant association between participants with or without quarantine at p .value of :0.303 (Zhu et al.,2020). Another study done about job satisfaction, found components of occupational satisfaction such as workload, work conditions, significantly less important in comparison with much powerful components related to personal accomplishment (Savitsky et al .,2021).

IV. CONCLUSIONS:

Most of employees in Al Nasiriyah heart center effect with psychological effect of occupational hazard in work place in COVID-19 pandemic include stress.

TABLE (1): Employees' response about the psychological risk at the work place:

N	Statements	Response										Sig
		SA		A		N		D		SD		
		N	%	N	%	N	%	N	%	N	%	
1	During Corona pandemic, as a health care provider worried about getting infected from the job	153	51	82	27.3	13	4.3	26	8.7	26	8.7	0.001
2	During Corona pandemic, as a health-care provider, you feel very stressed and tired as a result of working for a long time.	173	57.7	92	30.7	19	6.3	10	3.3	6	2	0.001
3	During Corona pandemic, as a health care provider, you feel isolated, socialized and lonely as a result of working conditions.	116	38.7	104	34.7	26	8.7	31	10.3	23	7.7	0.03
4	During Corona pandemic, as a health care provider, you feel depressed by the pressures of work.	105	35	88	29.3	34	11.3	42	14	31	10.3	0.001
5	During Corona pandemic, as a health-care provider, you're feeling a lot of fatigue as a result of wearing heavy personal protective equipment for a long time.	163	54.3	92	30.7	25	8.3	15	5	5	1.7	0.001
6	During Corona pandemic, as a health-care provider, you are afraid of transferring the infection to family members.	207	69	76	25.3	7	2.3	5	1.7	5	1.7	0.001
7	During Corona pandemic, as a health-care provider, you feel hard to sleep and insomnia.	81	27	85	28.3	49	16.3	45	15	40	13.3	0.09
8	During Corona pandemic, as a health-care provider, you feel shame and community ostracism as a result of working conditions.	56	18.7	43	14.3	32	10.7	77	25.7	92	30.7	0.001
9	During Corona pandemic, as a health care provider, you feel the stress and stress of work.	93	31	106	35.3	38	12.7	30	10	33	11	0.001
10	During Corona pandemic, as a health care provider, you feel afraid of quarantine and isolation.	88	29.3	84	28	43	14.3	45	15	40	13.3	0.423
11	In the Corona pandemic, as a health care provider, you feel the psychological stress of repeated deaths in the heart center.	100	33.3	74	24.7	45	15	44	14.7	37	12.3	0.001
12	Do you feel afraid to receive the Corona vaccine?	50	16.7	55	18.3	39	13	46	15.3	110	36.7	0.01
13	In the Corona pandemic, as a health care provider, you feel job dissatisfaction as a result of work pressures.	64	21.3	72	24	63	21	39	13	62	20.7	0.65
14	The decision makers at the institution provide psychological support to the cadre at the heart center through material privileges and praise for their performance.	29	9.7	55	18.3	59	19.7	39	13	118	39.3	0.004

SA= strongly agree , A= agree , N=Neutral , D= disagree ,SD= strongly disagree

REFERENCES

Almayahi N, Jasim A, Alibraheem SH. (2021) . Occupational Risk Assessment in Light of the Corona Pandemic in Some Health Institutions of Wasit Governorate-Iraq. Annals of the Romanian Society for Cell BiologyJun 9;25(6):9748-858.

Alshalani, A. J., & Salama, K. F. (2019). Assessment of Occupational Safety Practices Among Medical Laboratory Staff in Governmental Hospitals in Riyadh, Saudi Arabia. Journal of Safety Studies, 5(1), 1– 23.

Daham, F. H., Jasim, A. K., & Zakair, K. Y. (2020). Study and Assess the Occupation Hazards to Health Workers in the City of Kut/Wassit. *Indian Journal of Forensic Medicine & Toxicology*, *14*(4).

EU-OSHA. Psychosocial Risks and Stress at Work. Available online: https://osha.europa.eu/en/themes/psychosocial-risks-andstress (accessed on 12 may 2022).

Hamid S, Malik AU, Kamran I, Ramzan M. (2013) Job satisfaction among nurses working in the private and public sectors: a qualitative study in tertiary care hospitals in Pakistan. J Multidiscip Healthc. Jan 3;7:25-35. doi:

10.2147/JMDH.S55077. PMID: 24453494; PMCID: PMC3887073. https://pubmed.ncbi.nlm.nih.gov/24453494/

Hupke, M.; Van den Broek, K.; Kudasz, F(2020). Psychosocial Risks and Workers Health. OSH Wiki.. Available online: https://oshwiki.eu/wiki/Psychosocial_risks_and_workers_health#Definition_of_psychosocial_hazards_and_risks (accessed on 10 may 2022)

J. Santabárbara, J. Bueno-Notivol, D.M. Lipnicki, B. Olaya, M. Pérez-Moreno, P. Gracia-García,(2021),Prevalence of anxiety in health care professionals during the COVID-19 pandemic: a rapid systematic review on published articles in Medline) with meta-analysis Prog Neuropsychopharmacol Biol Psychiatry, 107 (Article 110244

Lu, W., Wang, H., Lin, Y., & Li, L. (2020). Psychological status of medical workforce during the COVID-19 **pandemic: A cross-sectional study. *Psychiatry research*, *288*, 112936.**

Manser, S. S., Houck, K., Kramer, M. D., Tabas, I. A., Brown, C. V., & Coopwood, B. (2018). Do screening and a randomized brief intervention at a Level 1 trauma center impact acute stress reactions to prevent later development of posttraumatic stress disorder?. *Journal of trauma and acute care surgery*, *85*(3), 466-475.

N. Salari, H. Khazaie, A. Hosseinian-Far, B. Khaledi-Paveh, M. Kazeminia, M. Mohammadi,(2020). The prevalence of stress, anxiety and depression within front-line healthcare workers caring for COVID-19 patients: a systematic review and meta-regression Hum Resour Health, 18, p. 100

S. Melamed, A. Shirom, S. Toker, et al. (2006) Burnout and risk of cardiovascular disease: evidence, possible causal paths, and promising research directions Psychol Bull, 132 (3), pp. 327-353, 10.1037/0033-2909.132.3.327

S. Melamed, A. Shirom, S. Toker, et al. (2006), Burnout and risk of type 2 diabetes: a prospective study of apparently healthy employed persons Psychosom Med, 68 (6) pp. 863-869, 10.1097/01.psy.0000242860.24009.

Savitsky, B., Radomislensky, I., & Hendel, T. (2021). Nurses' occupational satisfaction during COVID-19 pandemic. *Applied Nursing Research*, *59*, 151416**.**

Senek, M., Robertson, S., Ryan, T., King, R., Wood, E., Taylor, B., & Tod, A. (2020). Determinants of nurse job dissatisfaction-findings from a cross-sectional survey analysis in the UK. *BMC nursing*, *19*(1), 1-10.

Zhu, J., Sun, L., Zhang, L., Wang, H., Fan, A., Yang, B., ... & Xiao, S. (2020). Prevalence and influencing factors of anxiety and depression symptoms in the first-line medical staff fighting against COVID-19 in Gansu. *Frontiers in psychiatry*, *11*, 386.

Zhu, S., Wu, Y., Zhu, C. Y., Hong, W. C., Yu, Z. X., Chen, Z. K., ... & Wang, Y. G. (2020). The immediate mental health impacts of the COVID-19 pandemic among people with or without quarantine managements. *Brain, behavior, and immunity*, *87*, 56.