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## Psychological Impact of the COVID-19 Pandemic on Health Care Workers in Tunisia: Risk and Protective Factor

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Abstract: Background: The aim of the study is to evaluate the magnitude of different psychological outcomes among Tunisian health care professionals (HCP) during the COVID-19 pandemic and to identify the associated factors. Methods: HCP completed a cross-sectional questionnaire from April 4th to April, 28th 2020. The survey collected demographic information, factors that may interfere with the psychological outcomes, behavior changes and mental health measurements. The latter was assessed through 3 scales; the 7-item questions Insomnia Severity Index, the 2-item Patient Health Questionnaire and the 2item Generalized Anxiety Disorder. Multivariable logistic regression was conducted to identify factors associated with psychological outcomes. Results: A total of 503 HCP successfully completed the survey; among those, n=493 consented to enroll in the study, 411 [83.4%] were physicians, 323 [64.2%] were women and 271 [55%] had a second-line working position. A significant proportion of HCP had anxiety 35.7%, depression 35.1% and insomnia 23.7%. Females, those with psychiatric history and those using public transport exhibited the highest proportions for overall symptoms compared to other groups e.g., depression among females vs. males: 44,9% vs. 18,2%, P=0.00. Those with a previous medical history and nurses, had more anxiety and insomnia compared to other groups e.g. anxiety among nurses vs. interns/residents vs. attending 45,1% vs 36,1% vs 27,5%; p=0.04. Multivariable logistic regression showed that female gender was a risk factor for all psychological outcomes e.g. female sex increased the odds of anxiety by 2.86; 95% confidence interval [CI], 1, 78-4, 60; P=0.00, whereas having a psychiatric history was a risk factor for both anxiety and insomnia. (e.g. for insomnia OR=2,86; 95% [CI], 1,78-4,60; P=0.00), Having protective equipment was associated with lower risk for depression (OR=0,41; 95% CI, 0,27-0,62; P=0.00) and anxiety. Physical activity was also protective against depression and anxiety (OR=0,41, 95% CI, 0,25-0,67, P=0.00). Conclusion: Psychological symptoms are usually undervalued among HCP, though the COVID-19 pandemic played a major role in exacerbating this burden. Prompt psychological support should be endorsed and simple measures such as physical activity and ensuring the necessary protection are paramount to improve mental health outcomes and the quality of care provided to

Keywords: COVID-19 pandemic, health care professionals, mental health, protective factors, psychological symptoms, risk

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