

# COVID-19 impact on nurses' psychological wellbeing: an international survey

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## Background

Existing evidence demonstrates the psychological distress experienced by nurses working during the COVID-19 pandemic. Research has been conducted mostly in singular countries and used heterogeneous measures. What factors impacted nurses' psychological wellbeing in South American and Asian region during COVID-19 outbreak are yet unknown.

## Methods

An international, cross-sectional study was designed. A pre-validated questionnaire measuring preparedness and experiences of managing COVID-19 and the stress level of nurses were used to collect data between 1 January to 30 June 2021.

## Results

While more than 76% of participants from Chile and Indonesia managed a COVID-19 case, only 37.3% of Taiwanese participants had cared for a COVID-19 patient. The correlational analysis demonstrated that confidence in using personal protective equipment, adherence to workplace guidelines and involvement in assessing suspected COVID-19 cases had a significant correlation with participants' stress levels. The stepwise regression analysis showed that concerns about contracting COVID-19 and experiencing discrimination at work could predict nurses' stress levels in all three countries.

**Table 1. Correlation analysis of the questionnaire and IESR score. \*p<0.05; \*\*p<0.01 (2-tailed)**

	All	Taiwan	Chile	Indonesia
Gender	-0.046**	-0.023	-0.076	-0.148**
Age	-0.044**	-0.081**	-0.114*	0.050
Practice year	-0.047**	-0.072**	-0.146**	0.036
Highest education level	-0.002	-0.051**	-0.019	0.026
Registered nurse	0.077**	0.071**	0.108*	0.092
Managerial	-0.056**	-0.057**	-0.105*	-0.053
Lecturer	-0.035*	-0.043*	-0.016	0.014
Level of knowledge about COVID-19	0.020	0.018	0.085	-0.096
Preparedness for COVID-19 in 2019	0.004	0.036	-0.013	-0.037
Preparedness for COVID-19 in 2021	-0.034*	-0.021	0.018	-0.233**
Preparedness for COVID-19 in the future	-0.103**	-0.106**	-0.076	-0.149**
Clear & timely information about COVID-19	-0.114**	-0.108**	-0.097	-0.146**
Confidence in using PPE	-0.142**	-0.141**	-0.211**	-0.216**
Adherence of workplace's guidelines to COVID-19	-0.136**	-0.140**	-0.126*	-0.259**
Involvedness of assessing suspected COVID-19 cases	0.043**	0.042*	-0.602	0.052
Referring COVID-19 cases	0.051**	0.054**	0.037	-0.030
Treating suspected COVID-19 cases	0.055**	0.047*	0.009	-0.024
Caring COVID-19 cases	0.092**	0.089**	-0.178**	-0.331**
Average working days in the past 6 months	-0.001	-0.002	0.155**	-0.015
Concerns about contracting COVID-19	0.341**	0.393**	0.226**	0.292**
Avoid telling cared for COVID-19 patients	0.188**	0.191**	0.140**	0.218**
Family/friends avoiding contact with you	0.246**	0.240**	0.257**	0.215**
Experienced or witnessed discrimination at work	0.214**	0.222**	0.263**	0.192**

## Discussion

Workplace managers should direct their attention to providing organisational support in promoting nurses' psychological wellbeing as their social support may be lacking.

**Table 2. Stepwise regression analysis of IESR score. \*p<0.05; \*\*p<0.01 (2-tailed)**

	All	Taiwan	Chile	Indonesia
△R <sup>2</sup> (95% Confidence-Interval)	0.197**	0.222**	0.157**	0.178**
Concerns about contracting COVID-19	0.117** (3.818-4.692)	0.155** (4.426-5.380)	0.047** (1.869-4.607)	0.085** (18.494-42.460)
Family/friends avoiding contact with you	0.044** (4.175-6.300)	0.019** (2.970-5.277)	0.045** (4.692-11.463)	
Experienced or witnessed discrimination at work	0.018** (2.887-4.831)	0.032** (3.011-5.085)	0.069** (6.241-13.243)	0.015** (0.770-8.550)
Avoid telling cared for COVID-19 patients	0.008** (1.631-3.912)	0.009** (2.092-4.457)		0.028** (1.836-10.472)
Adherence of workplace's guidelines to COVID-19	0.006** (-1.584 - 0.547)	0.007** (-1.818 - 0.792)		0.050** (-7.109 - 2.599)
Caring COVID-19 cases	0.003** (0.939-2.867)			
Clear & timely information about COVID-19	0.002** (-1.336 - 0.333)			
Managerial			0.009** (-11.065 - -0.219)	

## Conclusions and implications for nursing and health policy

Nurses' fear of contracting COVID-19 and the risk of social isolation was due to discrimination associated with working with COVID-19 patients. We recommend collaborative work of local and international health organisations in developing strategies to support nurses' psychological wellbeing during and after the pandemic.