Supplementary material

Study design

This was a cross-sectional clinical study that employed a convenience sampling approach and required patients to complete self-reported questionnaires.

Study setting

According to the COVID-19 diagnosis and treatment plan issued by the National Health Commission of the People's Republic of China, patients with confirmed COVID-19 must be centrally treated. This study was conducted from 13th February 2020 to 29th February 2020 in a designated hospital (Union Red Cross Hospital) rebuilt to centrally treat those confirmed COVID-19 patients in Wuhan, China.

Study participants

Participant inclusion criteria for the present study were: (1) patients had a confirmed case of mild or moderate COVID-19; (2) patients exhibited communication and cognitive skills that were sufficient to complete the study questionnaire; and (3) patients provided informed consent to participate in this voluntary study. Patients were excluded from this study if they exhibited severe symptoms or mental disorders. Mild patients included in this study were defined to have mild signs or symptoms and their imaging results showed no signs of pneumonia. Moderate patients were defined to have a fever, respiratory tract symptoms and their imaging results showed pneumonia.

Sample size estimate

According to the sample size requirements of statistically related variables influencing factors and variable correlation studies, the sample size should be at least 5-10 times the number of variables. There are 7 variables in this study and correspondingly the sample size is ideally no less than 70.

Data collection

Data were collected by first having an investigator explain the purpose of the survey and the completion method to the patient. Patients then completed these questionnaires independently, with necessary assistance being provided to patients who had reading difficulties or visual impairments.

Statistical analysis

SPSS v21.0 was used for statistical testing. There were no missing data in this study. Data are means ± standard deviations (SD). Data were compared via t-tests, one-way ANOVAs, or non-parametric tests as appropriate when comparing scores among different demographic and exposure groups for the different standardized scales used herein. SNK or LSD approaches were used when comparing groups where three or more independent groups were present. Variables correlations associated with each scale were evaluated via multiple linear regression analysis. Relationships between scales were evaluated via Pearson's correlation analysis. $P < 0.05$ was the significance threshold.