

**An assessment of the relationship between the Brief Job Stress Questionnaire and  
Mental Health Diagnostic Rating Scales  
- From a survey of Healthcare Personnel engaged in the medical care of COVID-19**

**Abstract**

**Background:** Healthcare personnel (HCP) are high-risk groups of work-related mental stress. WHO defined Burnout. Many studies imply HCPs' burnout affects the quality of patient care, safety, and medical malpractice. Thus this is a public health problem. Japanese government legally enforced companies to annually conduct the Brief Job Stress Questionnaire (BJSQ) since 2014 throughout the nation to enhance the employees' mental health. This study aimed at examining the validity of BJSQ using Mass Rack Burnout Index (MBI) and Patient Health Questions (PHQ-9).

**Method:** A cross-sectional study was performed on a total of 15 nurses working at the ICU, ER, and General Ward at the general hospital in 2020. They were anonymously replied via QR code or web to BJSQ: 57 items MBI:16, PHQ-9: 9 and an additional one:1, Practice Environment Scale of the Nursing Work Index (PES-NWI):31. Spearman's correlation analysis was conducted for BJSQ 3 domains; Job Stressors (JB), Psychosomatic Reactions(PR) and Support (SP) domains.

**Results:** Study participants were age at 20-29 (47%), 30-39(40%) and 40-49(13.3%). Mostly were unmarried. The association was confirmed between BJSQ's PR in MBI (Exhaustion, Cynicism) and PHQ-9 respectively (-0.593, -0.5689, -0.7964, and -0.7462, all  $p < 0.05$ ). However, Professional efficacy showed association with for JB (0.7020,  $p < 0.05$ ). None of the SP domains were associated with any of MBI nor PHQ-9.

**Conclusion:** The validity of BJSQ was confirmed, at least in the PR but not in the rest of the domains. Further research with sufficient sample size is required. However, ensuring follow-up is required for optimal use of BJSQ.