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## Now, It Is Time to Consider Job Stress in the Field of Gastroenterology

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See "Job Stress and Job Satisfaction among Health-Care Workers of Endoscopy Units in Korea" by Seung-Joo Nam, Hoon Jai Chun, Jeong Seop Moon, et al., on page 266-272.

In the last decade, rapid changes in medical practice, including rising demand for healthcare services, academic specialization, and increased responsibility for patients, has had a great influence on physicians' job stress and burnout, where the latter signifies a long term stress reaction characterized by a loss of enthusiasm for work, depersonalization, and a lack of a sense of personal accomplishment.<sup>1</sup> Shanafelt et al.<sup>2</sup> reported that 30% to 65% of United States physicians across medical specialties experienced at least one symptom of burnout and several studies have shown that there are high levels of job stress and burnout in surgery, oncology, and emergency medicine.<sup>2-5</sup> Moreover, previous studies have demonstrated that extreme job stress and burnout lead not only to negative personal effects for physicians including increased absenteeism, job turnover, early retirement, and mental well-being problems, but also an increased risk of medical errors, that contributes to adverse effects on the quality of patient care.<sup>6-10</sup>

Until now, there have been few investigations of job stress and burnout in the field of gastroenterology. Keswani et al.<sup>11</sup>

showed that most gastroenterologists (GEs) in the United States experienced moderate levels of burnout and junior GE (those with 3 or fewer years of experience) had higher levels of stress related to endoscopic practice than senior GE regardless of interventional procedures. For nurses, Son and Yang<sup>12</sup> reported that endoscopic unit nurses in Korea suffered a great deal of stress, similar to what nurses in intensive care units experienced.

In this issue of *Clinical Endoscopy*, Nam et al.<sup>13</sup> analyzed job stress levels by using the Korean occupational stress scale (KOSS) and assessing job satisfaction among 59 health-care providers working in teams in the endoscopy units of university-affiliated hospitals in Korea. They reported that nurses had significantly higher levels of job stress ( $48.92 \pm 7.97$ ) compared to doctors ( $42.59 \pm 6.37$ ), and that the total job stress scores for the endoscopy unit workers ( $46.39 \pm 7.81$ ) were lower than those of a national sample of Korean workers ( $51.23 \pm 8.83$ ). Additionally, job stress was significantly associated with job demand, insufficient job control, and job insecurity in endoscopy units.<sup>13</sup> Because previously reported investigations were performed according to occupation, and there was no data about job stress in the field of gastroenterology in Korea, this investigation has important meaning in that this is the first study evaluating job stress and job satisfaction of endoscopic unit team workers in actual clinical practice in Korea.

However, this study revealed several issues that we must consider. First, the method used to evaluate job stress in this study seems to be inadequate for assessing workers in endos-

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copy units. Because the KOSS score was designed to apply to all occupations in the general Korean population, it has difficulty reflecting the distinctive occupational environment of endoscopic unit workers, including emergency endoscopy, acquisition of new endoscopic skills, complexity of interventional procedures, and concerns about procedural complications. Therefore, an additional inventory specific to the field of gastroenterology, such as the GE stress inventory, is required. Second, the finding of the present study that there were significant differences in job stress and satisfaction according to job position should be interpreted cautiously. Because the KOSS focuses on analyzing factors related to job stress, it does not include personal characteristics, and we therefore could not evaluate actual response levels for job stress. Previous studies have demonstrated that multiple factors including demographic and life style characteristics such as age, sex, marital status, having a hobby, and regular exercise influence job stress. Yoon and Kim<sup>14</sup> showed that marital status was associated with depressive symptoms related to job stress in nurses and explained that marriage affords greater emotional and social support. Also, younger age was a significant risk factor for a high KOSS score, and having a hobby and undertaking regular exercise reduced the KOSS score in a study of occupational stress in Korean surgeons.<sup>15</sup> Therefore, it is difficult to conclude that the higher job stress scores of nurses compared to doctors were simply due to their job position. Likewise, whether endoscopic workers really experienced lower levels of stress than the general Korean population is questionable, considering significant differences in the sizes of the study populations (12,631 vs. 59) and the confounding effects of differences in demographic factors. Indeed, in a United States study which compared 6,179 physicians with 3,442 working adults, physicians were more likely to experience burnout (37.9% vs. 27.8%) and to be unsatisfied with their work-life balance (40.2% vs. 23.2%) than the general population.<sup>5</sup> Therefore, to identify job stress according to job position or type of occupation, further studies that adjust for demographic or lifestyle characteristics with large samples will be needed.

A previous meta-analysis showed that interventions including psychoeducation, interpersonal communication, and mindfulness meditation significantly decreased burnout in physicians.<sup>16</sup> Taft et al.<sup>17</sup> reported that the use of problem-focused coping strategies tended to reduce burnout and psychological distress, and increase job-related self-efficacy in GEs, although statistical significance was not reached. In addition to the stress management interventions mentioned above, several stressors identified in the present study suggest important clues to controlling job stress. Job demand, as the common stress factor for all endoscopy unit workers, is

associated with the low cost of endoscopy procedures, biennial surveillance of upper gastrointestinal endoscopy, and the complex and overwhelming workload due to the growing use of interventional endoscopy, especially in Korea. Thus, organizational and societal interventions by policy makers and health care organizations are necessary to control job stress or burnout. Additionally, to correct problems related to insufficient job control, organizational systems, and a lack of recognition of nurses, employers need to provide nurses with sufficient recognition and opportunities for job promotion, better work environments, accurate communication, and increased job security. Finally, reconciliation between individual-level and workplace interventions is warranted to reduce stress and burnout in endoscopy unit workers.

### Conflicts of Interest

The authors have no financial conflicts of interest.

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