Need of Ergonomics Arrangements for Orthopedic Surgeons

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Editorial

The safety of the patient and its importance in a surgical setting is well recognised. However, in the literature far less emphasis is placed upon the safety of the surgeon and his/her team [1].

Orthopedic surgery requires surgeons to spend many hours per week in body positions that are known to contribute to musculoskeletal injuries and pain [2]. Orthopaedic surgeons are affected by several well-known low back pain risk factors such as heavy manual work; twisting and bending; standing in forward-bent and twisted postures; and poor ergonomic/lifting conditions. Various studies found higher rates of subjective physical injuries in orthopedic surgeons, with the most commonly injured areas reported as the back, neck, shoulders, arms, and hands. Incidence of low-back, neck, shoulder, wrist, and hand pain, cervical and lumbar disk herniation with radiculopathy, lateral epicondylitis, and carpal tunnel syndrome was higher than in the general population [3-6]. Data indicate that many orthopedic surgeons sustain at least one injury at the workplace at some time in their career [7]. Injuries to surgeons can affect the delivery of care and impose costs on the health care system [2].

Ergonomics is the study (or science) of the interaction between humans and their working environment. Also known as human factors, it has had a long and successful history of influencing the uptake of human centred design processes in different domains, such as the automotive industry and defence, and, to a lesser extent, medicine and surgery. Ergonomics can also be looked on as a bridge between human behaviour and technology, striving to guarantee the usability of future devices [8]. It also known as applied science of equipment design intended to maximize productivity by reducing operator fatigue and discomfort is called “ergonomics. Orthopaedic surgeons represent a leading portion of the population who will benefit most from ergonomic improvements. Although efforts have been made to improve ergonomics and reduce strains that occur during surgery, these techniques are often not widely adopted. Adherence to ergonomic guidelines can be difficult, and many surgeons are unaware of current guidelines.

To conclude, greater awareness of the issues surrounding injuries and institutional resources are needed to prevent these injuries among orthopedic surgeon is necessary. Ergonomical developments can used optimally to address this important issue.

References