

Association Between Type of Face Mask and Visual Analog Scale Scores During Pain Assessment

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Abstract : Introduction: Postoperative pain management is crucial for effective rehabilitation, with the Visual Analog Scale (VAS) being a common tool for assessing pain intensity due to its sensitivity and accuracy. However, challenges such as misunderstanding of instructions and discrepancies in pain reporting can affect its reliability. Additionally, the mandatory use of face masks during the COVID-19 pandemic may impair nonverbal and verbal communication, potentially impacting pain assessment and overall care quality. Aims: This study examines the association between the type of mask worn by health care professionals and the assessment of pain intensity in patients after orthopedic surgery using the visual analog scale (VAS). Design: A nonrandomized controlled trial was conducted among 176 patients hospitalized in an orthopedic department of a hospital located in northern-central Israel from January to March 2021. Methods: In the intervention group (n = 83), pain assessment using the VAS was performed by a healthcare professional wearing a transparent face mask, while in the control group (n = 93), pain assessment was performed by a healthcare professional wearing a standard nontransparent face mask. The initial assessment was performed by a nurse, and 15 minutes later, an additional assessment was performed by a physician. Results: Healthcare professionals wearing a standard non-transparent mask obtained higher VAS scores than healthcare professionals wearing a transparent mask. In addition, nurses obtained lower VAS scores than physicians. The discrepancy in VAS scores between nurses and physicians was found in 50% of cases. This discrepancy was more prevalent among female patients, patients after knee replacement or spinal surgery, and when health care professionals were wearing a standard nontransparent mask. Conclusions: This study supports the use of transparent face masks by healthcare professionals in an orthopedic department, particularly by nurses. In addition, this study supports the assumption of problems involving the reliability of VAS.

Keywords : postoperative pain management, visual analog scale, face masks, orthopedic surgery

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