VERBAL PAIN SCORES AND THEIR ASSOCIATION WITH VITAL SIGNS BEFORE AND AFTER SURGERY

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The purpose of the research project was to determine if an association existed between self-reported verbal pain scores and heart rate, blood pressure, and respiratory rate in adult patients who had elective surgery at the University Hospital. This study was conducted prospectively in the O.R. Holding Area and Post Anesthesia Care Unit (PACU) at the University Hospital. The total number of patients enrolled was 100. Heart rate, blood pressure, respiratory rate, and pain scores were obtained in the holding area and in the PACU. Pain was assessed using an 11-point verbal Numerical Rating Scale (NRS) where 0 represented no pain and 10 represented the worst pain imaginable.

Statistical analysis of the data reveals a clinically significant association between holding and PACU verbal pain scores with heart rate, blood pressure, and respiratory rate. This study identified a p-value of 0.0147 between pain scores and heart rate in the holding area, a p-value of 0.0169 between pain scores and diastolic blood pressure at fifteen minutes in the PACU, and a p-value of 0.0131 between pain scores and respiratory rate at forty-five minutes in the PACU. Based upon these results, vital signs appear to be a reliable method for assessing pain in the pre-surgical and post-surgical patient.