## **ABSTRACT**

## THE INFLUENCE OF ERGONOMIC FACTOR TO MUSCULOSKELETAL DISORDERS (MSDs) AT RSU HAJI SURABAYA (Study among Nurses at Inpatient Care Installation)

Nurses have one of the highest rates of *Musculoskeletal Disorders* (MSDs) compared with other occupations. Patient handling has been identified as a significant contributor to MSDs among nurses, especially injuries to the back, neck, and shoulders. The objective of this research was to analyze the influence of ergonomic factor to *Musculoskeletal Disorders* (MSDs) among nurses at inpatient care installation of RSU Haji Surabaya, especially for unit 1 C. This research was an analytic observational study. The total sample technique was used to get samples (n=15). The data were collected by using Rapid Entire Body Assessment (REBA) technique and *Nordic Body Map* questionnaire that was given in pre and post condition for three times chronologically, and doing in-depth interview with management. Descriptive and statistic methods by Categorical Regression were used to analyze the data. The results showed that the first work station was appropriate to nurse anthropometric, whereas the second and the third work station were not appropriate, the nurse's perception to work station was 73,3% felt comfortable, and work posture was 86,67% including not ergonomic posture. The highest MSDs at nurses was in the low back (72,2%), followed by upper back (66,67%), upper neck (58,83%), hips (38,89%), right and left legs (each of its 36,11%). The perception of work station influenced work posture was only 7,6%. Statistic calculation showed that individual characteristics and work posture influenced MSDs at nurses around 47,4% (R square = 0,474).

Conclusions: The greatest influencing variable was gender, followed by work posture, duration of work, age, habit of smoking, habit of exercise, and body mass index (BMI). The management controls were on process to apply ergonomic and socialization to employee at RSU Haji Surabaya. Engineering controls and training program are recommended to minimize MSDs at nurses.

**Key words**: ergonomic factor, nurse, *musculoskeletal disorders* (MSDs)