

ER76: Determination of appropriate static and dynamic anthropometric characteristics for selecting of emergency medical service students

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Abstract/Summary

Introduction: Emergency medical services are one of the most physical and psychological stressful work. Physical conditions and appropriate size of body are important in this job. Body size should be so that the person can do his activities easily such as carrying patient and drive ambulance. There are no recommended values or range about the appropriate body sizes of Emergency medical services workers. These values are necessary for optimum performance. Anthropometric measurement can be used for providing suitable range to staff selection. The aim of this study was for identifying appropriate anthropometric dimensions for selecting of a person for emergency medical services.

Methods: This study was conducted as cross sectional in emergency medical services of Alborz medical university. By research team and an observed study, emergency medical services job specification surveyed for ergonomic requirements. Body posture can be affected by dimension in the workplace was determined and measured. Corresponding anthropometric parameter with workplace dimension was determined. Demographic properties of under study people such as age, place of birth, race and... were collected. Body anthropometric parameter and physiological power by heart rate was determined. After obtain the normative result, coordinate value with real measure in workplace and was suggested suitable dimension to this job.

Result: Necessary and effective dimensions for this job was determined by observing and interview with study population. Sampling of people for studying was conducted by senses and necessary information was collected by checklist and questionnaire. For study people the range of was 18-28 year, the average height was 176 cm, and fist height was 79. By comparing these values with real value in work place obtained conflict and provide appropriate dimension for this job.

Discussion: Aim of this study was obtained important parameters to select persons for emergency medical services and determine standard values of it. Results shown equipments and hardware in use in this job have not suitability with body size of workers. Difference with driver's chair height and popliteal height was 6.7 cm that can be correct by buying of customization. As need to select suitable people for this job if anthropometric dimensions of person's body to be in the expressed range in this study he will be suit for doing this job

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