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# Essential Cognitive, Psychomotor, and Sensory-Perceptual Abilities for Pre-Hospital Emergency Medical Personnel

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## ABSTRACT

**Introduction:** Job analysis is a critical process that identifies the skills and abilities necessary for optimal job performance, with a focus on enhancing safety and public health outcomes. A wide range of skills and abilities are essential in pre-hospital emergency care, which serves as the first point of contact for emergency medical services. The Fleishman Job Analysis System is particularly valuable for identifying these essential skills and abilities. It can significantly improve the efficiency and quality of pre-hospital emergency care services.

**Methods and Materials:** The study employed a cross-sectional design, involving pre-hospital emergency medical personnel as participants. The inclusion criteria required a minimum of five years of professional experience and voluntary participation. A total of 50 individuals who met these criteria were randomly selected for the research. Data collection utilized the Fleishman Job Analysis questionnaire, which comprised 52 cognitive requirements, 21 affective requirements, 10 psychomotor requirements, and 12 perceptual requirements, all rated on a seven-point Likert scale. Statistical analysis was performed using SPSS version 27 software, with results presented as means, standard deviations, and frequency percentages.

**Results:** The mean age of individuals involved in the investigation was 24.8 years, with a standard deviation of 9.33 years. Additionally, 45% of the participants were in a marital relationship. Furthermore, 42% held a bachelor's degree, and their work schedule consisted of 24 hours of work followed by 12 hours of rest. The study classified abilities with an average score exceeding six as meeting high demands. These demands encompassed problem-solving skills and verbal communication within the cognitive abilities category. The perceptual-affective abilities domain identified auditory sensitivity and attention as crucial, while the psychomotor abilities domain highlighted reaction time, speed regulation, manual dexterity, and arm coordination as essential skills.

**Conclusion and Discussion:** Perceptual-affective abilities encompass cognitive processing, motor coordination, and sensory perception, all of which are crucial for rapid and accurate decision-making and responses in emergency scenarios. The effective utilization and coordination of these abilities can significantly enhance the overall efficiency and quality of care provided in pre-hospital emergency settings.

*Keywords:* Hospitals, Psychomotor performance, Work performance

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