

The determinants of firefighter physical fitness: An inductive inquiry into firefighter culture and coronary risk salience

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Abstract: Objective. An extensive body of research demonstrates firefighters are at risk of sudden cardiac death, with physical fitness a significant contributor to coronary outcomes. Emergency response events place considerable physiological demands on firefighters that require high levels of fitness and cardiovascular endurance many firefighters do not possess. Additionally, interventions demonstrate little effectiveness improving firefighter long term fitness level. Yet previous research demonstrates that unique socio-cultural and normative factors may influence firefighter health behaviors, but little is understood regarding the presence of overall fitness culture. It is uncertain if fitness and readiness expectations translate into practice, i.e., whether physical fitness is a core value in firefighter culture. Therefore it may be inappropriate to implement behavioral change without first considering the part physical fitness plays in firefighting. This research informed these critical knowledge gaps by: (1) Determining the cultural meaning of physical fitness, worksite program adherence, and coronary health from the firefighter's perspective, (2) Identifying if fitness norms exist in the absence of mandatory programs, and (3) Ascertaining factors that facilitate overall firefighter physical fitness. Study Design. Full time firefighters were recruited from four urban North Carolina fire departments. The study was guided by a social ecological framework in which data was gathered via a three phase, mixed methods design. Ethnographic key informant interviews provided intrapersonal perspectives into the cultural meaning of fitness, worksite program adherence, and coronary health. Focus groups identified structural components of fitness norms and socio-cultural factors influencing fitness within fire service culture. The results of the focus groups were then used to guide development of a survey administered to approximately 1,000 firefighters to test emergent hypotheses regarding socio-cultural factors influencing fitness, including any correlation between fitness level and normative structural characteristics of fitness and smoking behaviors in the work environment. Principal Findings. Key insights into socio-cultural and normative factors affecting firefighter fitness has provided significant insights to assist fire departments to improve the effectiveness of workplace fitness programs, and change the culture of fitness and low coronary risk salience.

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