Emergency Medical Services (EMS) providers regularly experience long shifts, stressful patient care situations, and an unpredictable work pace that can result in increased stress. Greenville County EMS (GCEMS), a large agency that runs 80,000 calls per year in the Upstate of South Carolina, has had consistent problems with low morale, extended response times, and high turnover among the field staff.

This study investigates perceived and physiologic stress among the EMTs and Paramedics working at GCEMS.

**Methods**

**Subjects**
20 paramedics and ten EMTs were evaluated 30 minutes prior to the start of their shift and 30 minutes following the conclusion of their 12-hour day shift.

**Tasks**
A participant's perceived stress was evaluated using the Perceived Stress Scale (PSS) while physiological stress was assessed by measuring cortisol levels in saliva.

**Results**

**Time of Day on Perceived Stress:**
Data indicated that there was not a significant difference in perceived stress prior to and following a participant's shift.

**Time of Day on Physiologic Stress:**
A paired samples t-test showed cortisol levels were significantly higher post shift than pre shift, t(29) = 12.04, p < .001. Refer to Figure 1.

**Certification Level and Perceived Stress:**
Data indicated that certification level (EMT vs Paramedic) did not have a significant effect on perceived stress.

**Certification Level and Physiologic Stress:**
Similarly, data indicated that certification level did not have a significant effect on physiologic stress (see Table 1).

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