Title: Increasing comfort with sensory processing difficulties in Pre-hospital setting: Pre-post study of education and sensory tools in EMS providers

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Purpose of Study: Interfacing with patients with sensory processing difficulties is challenging to health care providers and even more problematic for Emergency Medical Services (EMS) personnel in the acute care setting. Sensory training might be an effective non-pharmacologic method to deal with these patient populations. The purpose of this study was to evaluate if an educational session and placement sensory tools would improve the comfort of EMS providers in prehospital setting.

Methods Used: EMS providers from two agencies in the Alabama Gulf EMS System were selected for this study. Pre-education questionnaires were administered to EMS providers to assess their frequency and comfort level in taking care of these patients. Educational session included video presentation of various topics related to sensory processing difficulties and education on sensory tools. Post-education questionnaires were administered to EMS providers 3 months post educational session to assess the use of sensory tools and their comfort in patient care. Comfort level was assessed on a Likert scale of 1-10 with 1 being not comfortable at all and 10 being extremely comfortable. We performed descriptive statistics and non-parametric Wilcoxon signed rank test to compare medians.

Summary of results: Total of 177/225 (78.6%) EMS providers completed the pre-education questionnaire. In the pre-education period, 159 (89.8%) of the EMS providers transported patients with sensory processing difficulties. Pre-education median comfort level was 7.5 (range: 1-10). At post-survey 135/177 (76.3%) EMS providers received educational training. 37 (27.4%) used the sensory tools within the prior 3 months. Post – education median comfort level was 8 (range: 3-10). Pre and post median comfort levels were significantly different ($p = 0.006$).

Conclusions: Sensory training can be an effective method for EMS providers to increase comfort in taking care of patients with sensory difficulties. Further research with larger sample size is needed to confirm/refute these findings.