Certified Athletic Trainers’ use of Cervical Testing to Differentiate Symptomology Following a Suspected Concussion
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Context: Recent research suggest a high comorbidity between concussion and cervical and/or vestibular pathology which when appropriately identified and treated may hasten return to play progress and symptom resolution. Proper identification and use of clinical testing allows clinicians to identify and treat specific deficits in associated structures such as the cervical musculature, cervical articular joints and/or vestibular system through the use of targeted evidence based rehabilitation management programs. Objective: To investigate ATs knowledge and use of cervical clinical test in the presence of symptoms following a suspected concussion to identify potential cervical injuries and create an appropriate management strategy. Design: Qualitative study Setting: Web-based management system utilizing open-ended questions Patients or Other Participants: 100 ATs participated in this study. Participant recruitment ended after data saturation was complete. The average years; experience was 16±4.2 yrs. Over 80% of respondents reported a minimum education of a master’s degree and the average number of concussions treated per year was 12±7.2. All participants were recruited through the NATA research recruitment resource. Data Collection and Analysis: We assessed participants’ perceptions, knowledge and tendencies towards cervical clinical testing following a suspected concussion using open-ended questions. Analysis of the open-ended questions was completed using an inductive approach borrowing from the grounded theory and constant comparative methods. Likert scale questions were also utilized to triangulate the data. Likert scale questions were used to triangulate the data and analyzed using mean and standard deviation. Multiple-analyst triangulation and peer review were included to establish data credibility. Results: Three themes emerged from the data. Perceptions and history showed that many ATs based initial concussion diagnosis on previous experience and knowledge of concussion signs and symptoms vs. comprehensive clinical testing. Physical Evaluation included palpation, manual muscle test and range of motion of the cervical spine to rule out catastrophic cervical injury, but, revealed very limited use of clinical test designed to differentiate symptoms such as headache and dizziness due to cervical pathology. Concussion Management strategies were found to rely heavily on physician referrals in accordance with organizational policies and regional laws as opposed to specific findings of clinical test performed by the trainer. Conclusions: Current athletic training education competencies focus primarily on correct identification of concussion signs and symptoms but do not include specific clinical test that could be used to aid in identifying specific deficits due to either vestibulo-ocular and/or cervical pathology. Early indications suggest that a lack of knowledge of appropriate clinical test combined with organizational policies which stipulate that a physician coordinate the diagnosis and management of any suspected concussion limits the perceived necessity and use of cervical clinical testing following a suspected concussion. Word Count: 438