

Free Communications, Poster Presentations: Communication and Athletic Training Administration

Baltimore Convention Center, Swing Hall; Thursday, June 23, 10:00AM-5:00PM; Friday, June 24, 10:00AM-5:00PM; Saturday, June 25, 10:00AM-1:00PM

Authors present June 23: Peer Review Authors – Last Names A through M: 10:30AM-11:15AM; Peer Review Authors – Last Names N through Z: 11:15AM-12:00PM

Assessment of Athletic Trainers Communication Skills in the Orthopaedic Trauma Hospital Setting

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Context: Anxiety in orthopaedic trauma patients is high. Medical staff communicate with patients at irregular hours. **Objective:** To assess the effect of athletic trainers' (ATs) ability to communicate with patients in the acute orthopaedic trauma setting and impact patient anxiety. **Design:** Longitudinal-cohort pilot study. **Setting:** Subjects were recruited from the University of Florida Level-I Trauma Hospital. Data were collected in the acute hospital setting and at patients' 2, 6, and 12 weeks clinical follow-up appointments. **Patients or Other Participants:** Individuals admitted to the Orthopaedic Trauma service requiring one or more surgical interventions for their orthopaedic injury and not currently receiving treatment for psychological disorders. A total of 55 patients were recruited, 46 with complete data at baseline, (average age 37.8 ± 14.1 years, 13.4 ± 3.6 years of education). Injuries of the lower extremity were most predominant (15% pelvis, 18% femur, and 33% tibia). Follow-up response rate was high; 2 weeks follow-up 71.5%, 6 weeks 72.0%, and 12 week 43.5%. **Interventions:** Two ATs worked with the Chief of Orthopaedic Trauma to facilitate communication to the patients regarding surgical interventions and addressing patient-driven questions. **Main Outcome Measures:** Dependent variables were Communication Assessment Tool (CAT) and measures of anxiety and depression (State Trait Anxiety Index; STAI and Beck Depression Inventory-II; BDI-II). The CAT was used to assess the ATs ability

to communicate information and interact with orthopaedic trauma patients at the conclusion of the study. This measure is scored on a 0-5 scale; 5 being the highest (range 0-75). The STAI and BDI-II were collected at all time points. The independent variable was data collection time points (baseline, 2, 6, and 12 weeks). SPSS version 23 was used to analyze the data. General linear model with repeated measures was used to assess STAI and BDI-II scores. **Results:** All data are reported as means and standard deviations. Baseline patient population STAI was high (STAI; 39.6 ± 12.8) Wilks' Lambda = 0.033. As time progressed significant decreases (relative to baseline) in anxiety levels were noted at 6 weeks (29.7 ± 9.0 ; $p = 0.018$) and 12 weeks (29.2 ± 8.4 ; $p = 0.037$). No significant changes for BDI-II were noted; Wilks' Lambda=0.380. When asked, patients reported the ATs ability to communicate effectively was extremely high (73.9 ± 3.7). **Conclusions:** Previous studies have shown that patients have less anxiety when they feel informed and included in their health-care. Our data suggests that ATs in the orthopaedic trauma hospital setting are effective at communicating patient injury information and decreasing patient anxiety. This was a feasibility study of ATs in the orthopaedic trauma setting. Our next step is to expand the intervention to include a control group (no AT interaction with patients), study measures and subject numbers to fully evaluate the impact of athletic trainers in this setting.

Developing a Health Communication Intervention for Caregivers of Youth Athletes

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Context: Sports related brain injuries (SRBI) are considered a national health problem for youth athletes, and all 50 states have legislation geared toward education and management. Despite state laws and educational materials, experts claim caregivers of youth athletes (CYA) are not fully educated about SRBIs. CYAs exhibit a culture of resistance and skepticism towards the recognition, treatment, and management of SRBIs. As primary decision makers, it is imperative to develop a tested health communication intervention for CYAs. **Objective:** The purpose was to use a public health model to develop a theory-based SRBI communication intervention for CYAs. The Health Belief Model (HBM) and Message Source Credibility (MSC) theory guided the research. Research questions: 1) What are CYAs' perception of susceptibility/severity of SRBIs, barriers and cues to action for education, and actions post-injury (HBM model), 2) What message sources are credible? **Design:** HBM and MSC theory guided questionnaire development for small group and one-on-one interviews. A phenomenological approach was used to understand experiences CYAs had with SRBIs. **Setting:** CYAs were interviewed in Texas and California. Large cities were selected due to the abundance of youth sport participation. **Patients or Other Participants:** Thirty CYAs (3 males, 27 females) were selected using criterion sampling to find CYAs of children of all ages that played different sports. **Data Collection and Analysis:** Using the transcribed recordings, researchers used Atlas.ti software to systematically analyze the data. Two

researchers trained two coders, who coded every interview and discussed codes with the researchers. Consensus coding resolved differences. Two additional coders reviewed the codes and discussed disagreements resulting in six coders examining the transcriptions and a master set of coded interviews.

Results: CYAs had a high-perceived severity regardless of child's sport but mixed views of susceptibility of SRBIs. Despite receiving SRBI information material from schools or youth leagues and reading or hearing Internet or media reports, CYAs consistently stated their own lack of education. There were very few recalled cues to action pre-injury confirming CYA's lack of SRBI education. The amount of information CYAs received and the source were barriers to being educated. Educational messages were considered credible when the source had specific SRBI knowledge, including their child's medical history. The most trusted sources were physicians and athletic trainers (ATs). Coaches were not trusted as they were seen as having ulterior motives.

Conclusions: There is a gap in communication with CYAs because laws exist and educational materials are accessible but CYAs still lack an understanding of SRBIs. A health communication intervention that comes from a trusted source, like ATs, and focuses on HBM constructs, e.g., increasing perceived susceptibility, removing barriers of education, including cues to action pre-injury, and identifying steps on post-injury treatment may fill this gap.

Athletic Trainers' Attitudes Toward Lesbian, Gay, Bisexual, and Transgender Patients

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Context: Healthcare professionals work with diverse patients including sexual and gender minority individuals. It is important to understand healthcare professionals' attitudes toward these populations and whether these attitudes impact their professional practice.

Objective: This study aimed to assess attitudes toward lesbian, gay, bisexual, and transgender (LGBT) patients among certified athletic trainers in the United States. **Design:** Cross-sectional study. **Setting:** Electronic survey.

Patients or Other Participants: A total of 26,921 certified athletic trainers who were members of the National Athletic Trainers' Association were emailed to participate in this study. We received 4,846 responses (18% response rate; age = 35 ± 10.2 years, gender = 60% women and 39% men).

Interventions: All participants completed an online survey which included two instruments: Attitudes Toward Lesbian, Gay, and Bisexual Patients (ATLGBP) and the Attitudes Toward Transgender Patients (ATTP). Previous research has established the reliability and validity of the ATLGBP ($\alpha = .830$) and ATTP ($\alpha = .834$). Data were also captured from each participant regarding gender (man or woman), race/ethnicity (White/Caucasian, Hispanic/Latino, Black/African American, Asian/Asian American, Multiracial/Multiethnic, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or other), clinical work setting (college/university, clinic, secondary school, or other), and geographic location (Northeast, Southeast, Midwest, Southwest, West, or International). **Main Outcome Measures:** Dependent variables were the responses to the ATLGBP and ATTP. Scores range from 15 to 75 for the ATLGBP and 10 to 50 for the

ATTP. Lower scores reflect more positive attitudes. Both instruments utilize a Likert scale and some items are reverse scored. We utilized two MANCOVAs, one to analyze the effect of gender and race on the ATLGBP and ATTP and one to analyze the effect of athletic trainers' clinical work setting and geographic location on the ATLGBP and ATTP. **Results:** In both the ATLGBP and ATTP scores, we identified a significant difference between genders ($F_{2, 4693} = 11.35, p < .001$; Wilk's $\Lambda = .995$) and race/ethnicities ($F_{14, 9386} = 1.71, p = .047$; Wilk's $\Lambda = .995$). Women (ATLGBP = 28.52 ± 6.60; ATTP = 21.73 ± 5.96) have significantly more positive attitudes toward LGBT patients than men (ATLGBP = 32.08 ± 7.48; ATTP = 25.37 ± 6.49). Multiracial/multiethnic participants (ATTP = 20.73 ± 5.54) had significantly more positive attitudes toward transgender patients than other races/ethnicities ($p = .022$). Athletic trainer location elicited significantly different responses, ($F_{10, 9284} = 6.84, p < .001$; Wilk's $\Lambda = .985$). Participants in the Northeast (ATLGBP = 28.69 ± 6.75; ATTP = 22.03 ± 6.12) show more positive attitudes toward LGBT patients compared to participants in the Southeast (ATLGBP = 30.39 ± 7.14; ATTP = 23.82 ± 6.48), Southwest (ATLGBP = 31.36 ± 7.55; ATTP = 24.70 ± 6.75), and Midwest (ATLGBP = 30.23 ± 7.03; ATTP = 23.21 ± 6.27). There was no statistical significant difference between the different clinical work settings and scores on the ATLGBP and ATTP. **Conclusions:** Many athletic trainers report positive attitudes towards LGBT patients, especially women, multiracial/multiethnic individuals, and those in the Northeast. Athletic trainers' clinical work setting does not appear to have an effect on their attitudes. The results show a continuing need to provide interventions aimed at ensuring safe environments for all patients regardless of sexual orientation and gender identity.