

# Do athletic trainers feel adequately trained to work with athletes with disabilities?



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**ATTR 540 RESEARCH METHODS IN HUMAN PERFORMANCE**

# Background



## Increased participation by athletes with disabilities

- **2-3 million US residents with disabilities participated in some form of recreation or organized sports** (Stopka 2003)
- **8500 students with disabilities participated in adaptive sports** (Monaghan 2011)
- **Legislation has removed many participation barriers** (Peck 1994)

# Background



## Individuals with Disabilities Education Act 2004

- Governs how states and public agencies provide early intervention, special education, and related services to children with disabilities
- **Disabilities Covered**
  - Autism
  - Deafness-blindness
  - Developmental delay
  - Intellectual disabilities
  - Orthopedic Impairment
  - Specific Learning Disorder
  - Traumatic Brain Injury
  - Deafness
  - Emotional Disturbance
  - Hearing Impairments
  - Other Health Impairments
  - Multiple Disabilities
  - Speech or language impairment
  - Visual impairment.

# Background



## Complications with participation

- **Participation involves same inherent risk** (Ramirez et al. 2009)
- **Conditions identified in athletes with disabilities are cardiovascular diseases (congenital and acquired), seizure disorders, vision problems, asthma and allergies, musculoskeletal conditions, joint laxity, and Down Syndrome** (Platt 2001)
- **Vision problems occur in almost half of the population with intellectual disabilities** (Platt 2001)

# Background



## Beliefs toward working with athletes with disabilities

- **Directors of Athletic Training Education Programs did not feel adequately trained in specialized equipment** (Conatser 2009)
- **Athletic Training Students were concerned about their ability to relate to the athletes and did not know what to expect** (Davis, Woodward, Ferrara & Campbell 2004)

# Background



## Athletic Training Education regarding athletes with disabilities

- Certified Athletic Trainers and Athletic Training students believe that more education is need when it comes to dealing with athletes with special needs(Conatser 2009) (Davis, Woodward, Ferrara & Campbell 2004)
- The Athletic Training Educational Competencies do not explicitly mention working with athletes who have intellectual disabilities, autism, sensory impairments, or specific physical disabilities

# Purpose



- **To determine if high school athletic trainers feel competent to evaluate, treat and rehabilitate athletes with disabilities**

# Hypotheses



- **Certified Athletic Trainer's are comfortable working with athletes with orthopedic impairments and some health impairments**
- **Certified Athletic Trainer's will feel they would benefit from more education on working with athletes with certain disabilities**



# Hypotheses (cont.)



- **Certified Athletic Trainer's with more experience with athletes with disabilities feel more competent in evaluating, treating and rehabilitating athletes with disabilities**

# Participants



- **Certified Athletic Trainers employed in the high school setting working in the United States**
- **1000 surveys will be emailed**
- **19.7% return rate**

# Instrumentation



- Assessing Adequacy of Training
- The content validity of the survey was tested by a panel of experts

# Procedures



- IRB Approval was received from Manchester University
- Once IRB approved I applied to have the National Athletic Trainers' Association send out the survey
- Survey was emailed out through the NATA to 1000 randomly selected athletic trainers working in the high school setting within the United States
- A reminder email was sent out to participants after two weeks

# Statistical Analysis



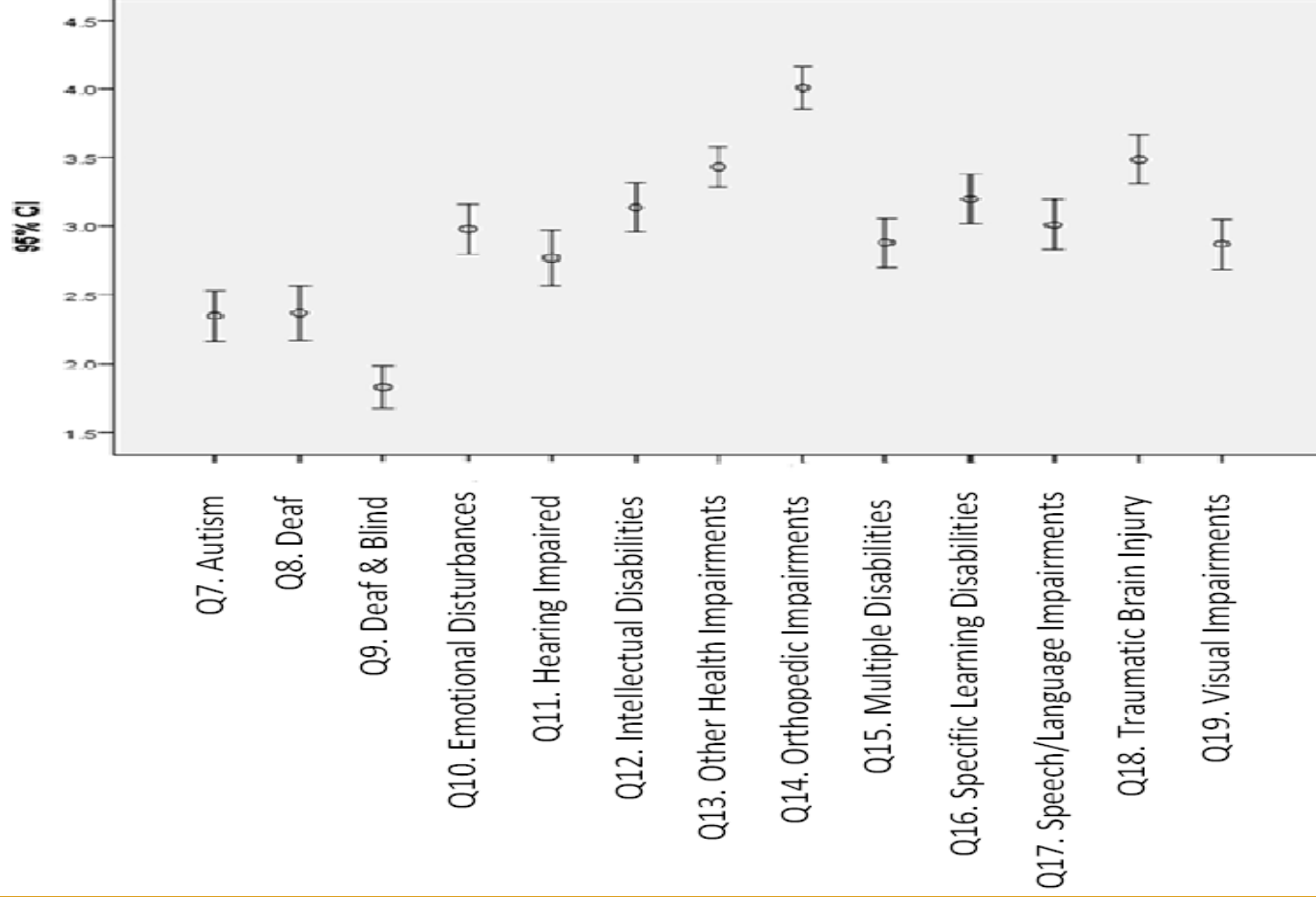
- All data will be entered into a password protected computer
- PASW Software
  - Repeated Measures ANOVA
  - Chi-squared test for Independence

# Results



- **49.7% of participants were ages 25 to 34**
- **59.8% were female , 40.2% were male**
- **Experience ranged from 1.5 years to 35 years**

# Mean Responses



# Results (cont.)



- Statistically significant association between experience working with athletes with disabilities and how they responded to each question for all questions except one

| Pearson Chi-Square Test             |        |    |                       |
|-------------------------------------|--------|----|-----------------------|
| Disability                          | Value  | df | Asymp. Sig. (2-sided) |
| Q7. Autism                          | 95.504 | 12 | 0.000                 |
| Q8. deaf                            | 44.576 | 12 | 0.000                 |
| Q9. deaf & blind                    | 36.871 | 12 | 0.000                 |
| Q10. emotional disturbances         | 47.54  | 12 | 0.000                 |
| Q11. hearing impaired               | 41.9   | 12 | 0.000                 |
| Q12. intellectual disabilities      | 49.021 | 12 | 0.000                 |
| Q13. other health impairments       | 42.158 | 12 | 0.000                 |
| Q14. orthopedic impairments         | 20.623 | 12 | 0.056                 |
| Q15. multiple disabilities          | 55.041 | 12 | 0.000                 |
| Q16. specific learning disability   | 36.801 | 12 | 0.000                 |
| Q17. speech or language impairments | 42.72  | 12 | 0.000                 |
| Q18. traumatic brain injury         | 31.718 | 12 | 0.002                 |
| Q19. visual impairments             | 46.862 | 12 | 0.000                 |



# Results (cont.)



- **Statistically significant difference between responses to each question**
  - Post-hoc analysis

# Results (cont.)



- Majority believe that they would have benefited from a class or clinical experience working with athletes with disabilities

| Do you believe a class specifically geared toward treating, evaluating, and rehabilitating athletes with disabilities would have been beneficial in training to work with athletes with disabilities? | Response Percent | Response Rate |
|---|------------------|---------------|
| Yes   | 93.30%           | 181           |
| No  | 7.70%            | 15            |
| Total Response  |                  | 194           |

| Do you believe a clinical experience working with athletes with disabilities would have been beneficial in training to work with athletes with disabilities? | Response Percent | Response Rate |
|--|------------------|---------------|
| Yes  | 94.90%           | 186           |
| No   | 5.10%            | 10            |
| Total Response   |                  | 196           |

# Discussion



- Hypotheses were all accepted
- Further Research
- How can this help Certified Athletic Trainers?



**Any Questions?**