The Effect of Previous Medical History on Student-Athlete Quality of Life

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INTRODUCTION

- Health-Related Quality of Life (HRQL) assessments are used to measure patient's views on their own health status in regards to their physical, emotional, mental and social health categories and can provide athletic trainers with valuable information about student-athletes overall well-being.[1-3]
- Commonly used QOL testing include Patient-Reported Outcomes Measurement Information System® (PROMIS-29) aims to quantify chronic symptoms such as pain, fatigue, emotional distress, and physical function and Quality of Life Neurological Disorders scale (Neuro-QOL) is used to assess the physical, mental and social effects of neurological conditions.[4-5]
- There is little data to aid clinicians in evaluating how previous medical conditions and family history of medical conditions may impact student-athlete HRQL.

PURPOSE

The purpose of this study was to examine the association between personal and family reports of medical history and HRQL in collegiate student-athletes during a pre-season baseline assessment.

METHODS

- We recruited 271 student-athletes for our cross-sectional study (age=19.00±1.15 years, height=175.18±4.29 cm, mass=72.29±12.03 kg).
- All participants were National Collegiate Athletic Association Division III soccer, field hockey, basketball, or lacrosse
- Participants completed a comprehensive pre-season assessment including completion of the Patient-Reported Outcomes Measurement Information System® (PROMIS-29), the Quality of Life in Neurological Disorders scale (Neuro-QOL), and a detailed past medical history.
- The independent variables were the presence of any personal or family (parents, siblings, grandparents) history of health impairments (balance disorder, psychological disorder, memory disorder or history of headaches).
- The dependent variables were the 9 subsets of HRQL (anxiety, depression, fatigue, pain interference, pain intensity, physical function, sleep disturbance, social roles) and the 2 subsets of Neuro-QOL (fatigue SF, Cognitive Function SF).
- We ran a separate stepwise linear regression equation for each of the 9 subsets of HRQL and each of the 2 subsets of Neuro-QOL against the 4 independent variables.

RESULTS

- Sibling health history (P<.001) and grandparent health history (P=.049) were associated with worse physical function scores ($F_{2,243}$=8.891, P<.001).
- Sibling health history (P=.044) was associated with pain interference ($F_{1,242}$=4.110, P=.044).
- Sibling health history (P=.038) was also associated with worse pain intensity ($F_{1,241}$=4.342, P=.038).
- Patient health history (P=.013) was associated with worse fatigue SF scores ($F_{1,252}$=6.229, P=.013).
- Family and patient medical history had no effect on anxiety, depression, sleep disturbance, social roles and activities, cognitive function or difficulty with daily activities (P>.05).

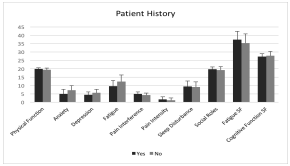

Table 1: The effects of Patient reported QOL and past medical history

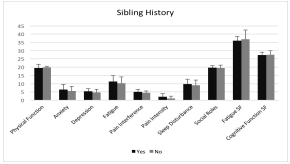

Table 2: The effects of Sibling reported QOL and past medical history

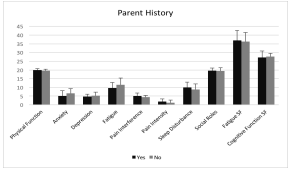

Table 3: The effects of Parent reported QOL and past medical history

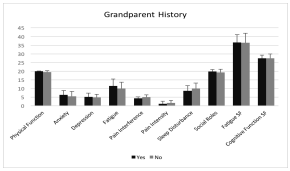

Table 4: The effects of Grandparent reported QOL and past medical history

DISCUSSION/CONCLUSIONS

- Past personal and family medical history of conditions such as headaches, balance disorders, memory disorders, or a psychiatric disorders can have an affect on student-athlete QOL in multiple categories.
- Family and patient past medical history were associated with physical function, pain interference, pain intensity, and fatigue SF.
- Sibling health history predicted categories of pain while patient health history predicted fatigue ratings.
- It is important to be informed that past medical history may impact HRQL as this may provide insight into student-athlete well-being.

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DISCLAIMER

The Active Rehab Study Consortium is a large multisite study group with the prime investigative institutions of the University of North Carolina at Chapel Hill and Medical College of Wisconsin. The Active Rehab Study Consortium Executive and Publication/Data Committees do not take responsibility for the scientific validity or accuracy of methodology, results, statistical analyses, or conclusions presented. The Active Rehab Study Consortium Publication/Data Committee includes members from all cohorts of the study.

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