

Kenneth C. Lam, Sc.D., ATC

Arizona School of Health Sciences

A.T. Still University

5850 E. Still Circle

Mesa, AZ 85206

480.245.6244

klam@atsu.edu

EDUCATION

POST-DOCTORAL RESEARCH FELLOWSHIP

Healthcare Outcomes Assessment and Evidence-Based Medicine, 2009-2011

A.T. Still University, Mesa, AZ

DOCTOR OF SCIENCE

Rehabilitation Sciences - Specialization in Movement Sciences, 2009

Boston University, Boston, MA

Dissertation: Are the coordination patterns of the lower extremities during walking and running restored more than one year after anterior cruciate ligament reconstructive surgery?

MASTER OF EDUCATION

Human Movement, 2004

Boston University, Boston, MA

BACHELOR OF SCIENCE

Athletic Training, 2003

Boston University, Boston, MA

***CAAHEP Accredited Entry-Level Athletic Training Education Program*

PROFESSIONAL EXPERIENCE

ASSISTANT PROFESSOR OF CLINICAL RESEARCH

A.T. Still University, Department of Interdisciplinary Health Sciences, 2011 - present

Courses taught:

DHS 801: Healthcare Outcomes

AT 6125: Healthcare Informatics and Technology

HS 532: Methods of Data Analysis

HS 522: Research Methods and Design

Provide research design and statistical support for faculty and student research projects.

CLINICAL PRACTICE SITE COORDINATOR

A.T. Still University, Department of Interdisciplinary Health Sciences, 2009 - present

Supervise daily activities of the Secondary School Athletic Training Practice-Based Research Network (PBRN), one of only three PBRNs granted *affiliate status* by the

Department of Health & Human Services, Agency for Healthcare Research and Quality (AHRQ). Responsible for all aspects of the education and training of clinicians across the country within the PBRN.

POST-DOCTORAL RESEARCH FELLOW

A.T. Still University, *Center for Clinical Outcomes Studies, 2009 - 2011*

Managed multiple research projects including the Clinical Outcomes Research Education for Athletic Trainers (CORE-AT) project, a large-scale prospective study addressing patient-centered outcomes in an adolescent population. Monitored the project's web-based electronic medical records (EMR) system and injury surveillance component (ISC). Revised and edit CORE-AT user manual. Conducted focus group sessions.

ADJUNCT FACULTY

A.T. Still University, *Department of Interdisciplinary Health Sciences*

DHS 803: Evidence-Based Practice, 2011

DHS 801: Healthcare Outcomes, 2010

INSTRUCTOR

A.T. Still University, *Department of Interdisciplinary Health Sciences*

AT 5130: Healthcare Outcomes, 2010

AT 5060: Introduction to Clinical Outcomes Research, 2010

Boston University *Department of Physical Therapy and Athletic Training*

HP 532: Clinical Medicine I: Physical Agents (Laboratory), 2007-2008

TEACHING FELLOW

A.T. Still University, *Department of Interdisciplinary Health Sciences*

DHS 801: Healthcare Outcomes, 2010

DHS 803: Evidence-Based Practice, 2010

AT 6120: Sport Injury Epidemiology, 2010

AT 5130: Healthcare Outcomes, 2009

AT 5110: Evidence-Based Practice, 2009

Boston University, *Department of Physical Therapy and Athletic Training*

HP 531: Clinical Medicine I: Physical Agents, 2008-2009

HP 532: Clinical Medicine II: General Medical Conditions, 2008 - 2009

AT 356: Examination and Diagnosis of Orthopedic Injuries, 2006 - 2009

AT 404: Clinical Athletic Training I, 2005 - 2008

AT 405: Clinical Athletic Training II, 2006 - 2009

AT 304: Athletic Training Practicum I, 2005 - 2008

AT 305: Athletic Training Practicum II, 2006 - 2009

RESEARCH ASSISTANT

Boston University, *Department of Physical Therapy and Athletic Training, 2006 - 2008*

Worked in collaboration with the College of Engineering at Boston University and the Hartford Insurance Company to create an on-body lift monitor to prevent low back injuries. Completed a critical review on the effects of lifting posture on low back biomechanics. Managed and conducted data collection to validate lift monitor. Created templates for in-

field testing of lift monitor at a New Balance sorting facility. Presented findings to corporate sponsors and consulted on project development.

CLINICAL EDUCATION SUPERVISOR

Boston University, *Department of Physical Therapy and Athletic Training, 2005 - 2007*

Supervised the clinical experience of Boston University athletic training students assigned to a “Supersite” at the Massachusetts Institute of Technology (MIT). Mentored and advised five Approved Clinical Instructors (ACI). Served as liaison between BUATP faculty and MIT Director of Sports Medicine. Organized and conducted orientation session for incoming athletic training students. Attended weekly BUATP faculty meetings.

CLINICAL EDUCATION TEACHING ASSISTANT

Boston University, *Department of Physical Therapy and Athletic Training, 2003 - 2009*

Facilitated the clinical education of athletic training students in the Boston University varsity athletic training room.

ATHLETIC TRAINER

Massachusetts Institute of Technology, Cambridge, MA, *2005 – 2007*

Prevented, evaluated, managed, and rehabilitated injuries and illnesses for 41 intercollegiate teams, primarily for football, men’s and women’s volleyball, and men’s and women’s track. Assisted in the planning and organization of cervical spine management in-service for the Massachusetts Institute of Technology Emergency Medical Technicians department. Supervised athletic training students as an ACI.

ASSISTANT ATHLETIC TRAINER

Rutgers University – New Brunswick Campus, New Brunswick, NJ, *2004 – 2005*

Managed the health care of Division I-A baseball, volleyball, and fencing teams. Supervised daily operations of satellite athletic training room. Hosted and coordinated medical coverage for volleyball and baseball BIG EAST tournaments. Scheduled and managed pre-participation physical examinations. Served as liaison between team physician and head coaches for in-season drug testing.

GRADUATE ASSISTANT ATHLETIC TRAINER

Boston University, Boston, MA, *2003 – 2004*

Provided athletic training services for 25 club sports teams, primarily women’s rugby and women’s ice hockey. Assessed inventory of athletic training supplies and equipment for annual budget. Processed insurance forms for medical referrals, procedures, and claims.

GRANTS FUNDED

Utilizing the clinical outcomes research education for athletic trainers (CORE-AT) LITE module to facilitate the collection and tracking of patient-rated outcomes during patient care: a feasibility study.

Funding Agency: Warner/Fermaturo and A.T. Still University Board of Trustees Research Grant

Role: Principal Investigator, July 1, 2011 – June 30, 2012

The purpose of this study is to determine the feasibility of CORE-AT LITE (ie, a module consisting of a tablet computer and a customized patient-rated outcome instrument application) to collect and track patient-rated outcomes during patient care.

The comparative effectiveness of an electronic medical record (EMR) system and access improvements, and performance feedback reporting on EMR utilization within a secondary school athletic training practice-based research network.

Funding Agency: A.T. Still University Strategic Research Fund

Principal Investigators: Kellie Huxel, PhD, ATC; John Parsons, PhD, ATC

Role: Co-Investigator, July 2010 - *present*

The purpose of this study is to characterize and enhance the utilization of a customized, practice-specific electronic medical record (EMR) by athletic trainers (AT) and patients within the A.T. Still University Secondary School Athletic Training Practice-Based Research Network, with the aim of improving data collection efforts and facilitating the provision of whole person healthcare.

The effect of sport-related concussion on cognition, balance, symptoms and health-related quality of life in adolescent athletes.

Funding Agency: National Operating Committee on Standards for Athletic Equipment (NOCSAE)

Principal Investigator: Tamara C. Valovich McLeod, PhD, ATC

Role: Co-Investigator, May 2010 - *present*

This project aims to: 1) assess the immediate and prolonged effects of concussion on health-related quality of life (HRQOL) in adolescent athletes, 2) assess the relationship between the measures of impairment (cognition, balance and symptoms) and disability, 3) compare the effect of sport-related concussion and musculoskeletal injury on HRQOL in adolescent athletes within the first 10 days post-injury and 4) collect “sport concussion impact” narratives from adolescents with sport-related concussion, identify the meanings they attribute to that concussion, and qualitatively determine the effects of concussion on their HRQOL.

The clinical outcomes research education for athletic trainers (CORE-AT) program: training clinical researchers for evidenced-based practice.

Funding Agency: National Athletic Trainers’ Association Research and Education Foundation.

Co-Principal Investigators: Alison R. Snyder, PhD, ATC; Tamara C. Valovich McLeod, PhD, ATC

Role: Research Associate, August 2009 - *present*

The goal of the Clinical Outcomes Research Education for Athletic Trainers (CORE-AT) Project is to educate and train post-professional athletic training students to utilize technology for the collection of healthcare outcomes data in order to practice in an evidence-based manner.

The effects of headache on health-related quality of life in following sport-related concussion.

Funding Agency: National Headache Foundation.

Principal Investigator: Tamara C. Valovich McLeod, PhD, ATC

Role: Research Associate, August 2009 – July 2010

The goal of this project was to assess the immediate and prolonged effects of concussion on symptom report, neurocognitive function, postural stability, and HRQOL and to collect

“sport injury impact” narratives from adolescents with sport-related concussion, identify the meanings they attribute to that concussion, and qualitatively determine the effects of concussion on their HRQOL.

The long-term effects of anterior cruciate ligament reconstructive surgery on gait coordination: A dynamics perspective.

Funding Agency: National Athletic Trainers’ Association Research and Education Foundation

Role: Principal Investigator (Doctoral Research Grant Award), July 2006 – May 2009

The purpose of this project was to investigate whether coordination patterns of the lower extremities during walking and running are restored more than one year after anterior cruciate ligament reconstructive surgery, using velocity and healthy subjects as a frame of reference.

Body-area instrumentation for avoidance of workplace injuries.

Funding Agency: The Hartford Financial Services Group

Principal Investigator: Robert C. Wagenaar, PhD

Role: Research Assistant, December 2006 – August 2008

The purpose of this project was to develop an on-body instrument to assist in preventing low back injuries that often occur in the workplace. Using accelerometer and gyroscope technology, the on-body instrument provided workers haptic feedback related to body posture during lift tasks.

REFEREED JOURNAL PUBLICATIONS

Lam KC. Rehabilitation protocols and techniques following anterior cruciate ligament reconstructive surgery: a meta-analysis. [In preparation].

Lam KC, Snyder Valier AR. Evaluating specific outcomes instruments for an athletic and physically active population. [In preparation].

Snyder Valier AR. **Lam KC.** Evaluating generic outcomes instruments for an athletic and physically active population. [In preparation].

Lam KC, Snyder AR. Incorporating clinical outcomes assessment into patient care and athletic training education. *Athletic Training Education Journal*. [In preparation].

Lam KC, Snyder Valier AR, Bay RC, Valovich McLeod TC. Pediatric Quality of Life Inventory Multidimensional Fatigue Scale: establishing normative values for an athletic adolescent population. [In preparation].

Sauers EL, Heichelbech MD, **Lam KC, Bay RC.** Evaluation of Upper Extremity Specific Health-Related Quality of Life of Collegiate Baseball Players During Late-Season. [In preparation].

Snyder Valier AR, **Lam KC**, Bay RC, Valovich McLeod TC. Gender differences in health-related quality of life between adolescent athletes. [In preparation].

Lam KC, Wagenaar RC, Holt KG, Foster TE. Identifying coordinative changes in the lower extremities more than one year after anterior cruciate ligament reconstructive surgery. *American Journal of Sports Medicine*. [In preparation].

Lam KC, Wagenaar RC, Holt KG, Foster TE. Characterizing multiple walking patterns: the effects of walking velocity on lower extremity coordination. *Gait and Posture*. [In preparation].

Valovich McLeod TC, **Lam KC**, Bay RC, Sauers EL, Snyder AR. A description of practice characteristics and patient encounters within the Secondary School Athletic Training Practice-Based Research Network. *Athletic Training and Sports Health Care*. [In preparation].

Valovich McLeod TC, Bay RC, **Lam KC**, Chhabra A. Representative Baseline Values on the Sport Concussion Assessment Tool 2 (SCAT2) in Adolescent Athletes Varies by Gender, Grade, and Concussion History. *American Journal of Sports Medicine*. [In review].

Snyder AR, Swank EM, **Lam KC**, Hansen ML, McLeod TC. Comparison of patient and proxy reporting of health-related quality of life in adolescent athletes who suffer a sports-related injury and require orthopaedic consultation. *British Journal of Sports Medicine*. [In review].

Lam KC, Snyder AR, Bay RC, Valovich McLeod TC. Comparing health-related quality of life differences between adolescent athletes and healthy adolescent individuals. *Quality of Life Research*. [In review].

Welch CE, **Lam KC**, Laursen RM. Paget-Von Schrotter Syndrome in a non-dominant arm: a case report. *Athletic Training and Sports Health Care*. [In press; available via e-pub].

Evans TA, **Lam KC**. Clinical outcomes assessment in sports rehabilitation. *Journal of Sport Rehabilitation*. 2011; 20:8-16.

Snyder AR, Perotti A, **Lam KC**, Bay RC. The influence of high voltage electrical stimulation on edema formation following acute injury: a systematic review. *Journal of Sport Rehabilitation*. 2010; 19:436-451.

PRESENTATIONS

Lam KC. Patient-rated outcome measures in athletic training: which are most appropriate for our patient population? *National Athletic Trainers' Association Annual Symposium, Special Topics Session*, St. Louis, MO; June 2012. [In review].

Lam KC. Clinicians are paramount: implementing a practice-based approach to improve patient care and clinical outcomes at the point-of-care. *National Athletic Trainers' Association Annual Symposium*, Feature Presentation Session, St. Louis, MO; June 2012. [In review].

Lam KC. Your patients matter: using patient-oriented outcome measures to guide clinical decisions. *National Athletic Trainers' Association Annual Symposium*, Special Topics Session, New Orleans, LA; June 2011.

Lam KC, Snyder Valier AR, Bay RC, Valovich McLeod TC. Identifying differences in health-related quality of life between adolescent athletes and a general, healthy adolescent population. *National Athletic Trainers' Association Annual Symposium*, Free Communication Program, New Orleans, LA; June 2011.

Lam KC, Snyder AR. Don't forget about your patients: the importance of assessing patient-rated clinical outcomes within an evidence-based practice culture. *Athletic Training Educators' Conference*, Breakout Session, Washington, DC; February 2011.

Lam KC, Snyder Valier AR, Bay RC, Valovich McLeod TC. Identifying differences in health-related quality of life between adolescent athletes and the general adolescent population. *Interdisciplinary Biomedical Research Symposium at A.T. Still University*, Poster Session, Kirksville, MO; October 2010.

Lam KC, Wagenaar RC, Holt KG, Foster TE. Identifying kinematic and coordinative changes in the lower extremities during walking and running more than one year after anterior cruciate ligament reconstructive surgery. *National Athletic Trainers' Association Annual Symposium*, Free Communication Program, Philadelphia, PA; June 2010.

Lam KC, Wagenaar, RC. The effects of walking velocity on maximum knee flexion angle during stance phase in bipedal locomotion. *Science and Engineering Day at Boston University*, Poster Session, Boston, MA; March 2009.

REFEREED ABSTRACTS

Valovich McLeod TC, Snyder AR, **Lam KC**, Bay RC, Sauers EL. A preliminary practice analysis of care provided within the Secondary School Athletic Training Practice-Based Research Network. *Association of Schools of Allied Health Professions*. Scottsdale, Arizona, October 2011. [Accepted July 2011].

Chhabra A, Bay RC, **Lam KC**, Valovich McLeod TC. Sideline management of concussions in adolescent athletes: can the sport concussion assessment tool 2 (SCAT2) be accurately used to determine return to play status? *American Orthopaedic Society for Sports Medicine Annual Meeting*, San Diego, CA; July 2011.

Lam KC, Snyder Valier AR, Bay RC, Valovich McLeod TC. Identifying differences in health-related quality of life between adolescent athletes and a general, healthy adolescent population. *Journal of Athletic Training*. 2011;46(3):S-50.

Califano K, Snyder AR, **Lam KC**, Valovich McLeod TC. Comparison of health-related quality of life in interscholastic adolescent athletes participating in fall, winter, or spring sports. *Journal of Athletic Training*. 2011;46(3):S-49.

Valovich McLeod TC, Bay RC, **Lam KC**, Chhabra A, Parsons JT, Snyder AR. The relationship between traditional concussion measures and health-related quality of life in adolescent athletes. *Journal of Athletic Training*. 2011;46(3):S-63.

Bay RC, Huxel Bliven K, Snyder Valier AR, **Lam KC**, Sauers ES. Item reduction and factor distribution of the Functional Arm Scale for Throwers (FAST). *Journal of Athletic Training*. 2011;46(3):S-32.

Huxel Bliven K, Parsons JT, Bay RC, Snyder AR, **Lam KC**, Valovich McLeod TC. Employment characteristics predict presence of a team physician in secondary school athletic training practice setting. *Journal of Athletic Training*. 2011;46(3):S-89.

Grenz A, Bay RC, **Lam KC**, Chhabra A, Valovich McLeod TC. Self-reporting of concussion symptoms: agreement between the SCAT2 and ImPACT symptom scales in adolescent athletes. *Journal of Athletic Training*. 2011;46(3):S-61.

Nicollelo T, Parsons JT, Huxel Bliven K, Bay RC, Snyder AR, **Lam KC**, Valovich McLeod TC. Personal and school characteristics predict the employment model of secondary school athletic trainers. *Journal of Athletic Training*. 2011;46(3):S-89.

Purdoff MJ, Anderson BA, **Lam KC**, Bay RC, Valovich McLeod TC. Post-concussion deficits measured by the sport concussion assessment tool 2 (SCAT2) among interscholastic athletes. *National Athletic Trainers' Association Annual Symposium, Free Communication Program – Poster Session*, New Orleans, LA; June 2011.

**Masters Award Finalist*

Romer ME, Snyder AR, **Lam KC**, Bay RC. Clinical usefulness of proxy report of health-related quality of life in adult dental patients with special needs. *International Association for Disability and Oral Health World Congress*, Ghent, Belgium; August 2010.

Romer ME, Snyder AR, **Lam KC**, Bay RC. Dental patients with special needs: reports of quality of life. *International Association of Dental Research, General Session*, Barcelona, Spain; July 2010.

Lam KC, Wagenaar RC, Holt KG, Foster TE. Identifying kinematic and coordinative changes in the lower extremities during walking and running more than one year after anterior cruciate ligament reconstructive surgery. *Journal of Athletic Training*. 2010;45(3):S-45.

Parsons JT, **Lam KC**, Bay RC, Mathieson K, Snyder AR, Valovich McLeod TC. Health-related quality of life: gender differences between adolescent athletes. *Journal of Athletic Training*. 2010;45(3):S-56.

Valovich McLeod TC, Bay RC, **Lam KC**, Snyder AR. Health-related quality of life following sport-related concussion in adolescent athletes. *Journal of Athletic Training*. 2010;45(3):S-55.

Valovich McLeod TC, Bay RC, **Lam KC**, Snyder AR. Health-related quality of life following sport-related concussion in adolescent athletes. *Rocky Mountain Athletic Trainers' Association Symposium*, Denver, CO; April 2010.

Valovich McLeod TC, Bay RC, **Lam KC**, Parsons JT, Snyder AR. Self-report concussion history negatively impacts headache, fatigue, and general health-related quality of life. *Brain Injury*. 2010;24(3):107.

Welch CE, **Lam KC**, Laursen RM. Paget-Von Schrotter Syndrome in a non-dominant arm: a case report. *Journal of Athletic Training*. 2007;42(2):S113-114.

INVITED PUBLICATIONS AND ABSTRACTS

Lam KC. The AO handbook of musculoskeletal outcomes measures and instruments, 2nd expanded edition (book review). *Athletic Training and Sports Healthcare*. 2011; 3(3):155-156.

Lam KC. Evidence-based practice: the clinical bottom line - Evaluating acute anterior cruciate ligament injuries. *NATA News*. 2011; June:30.

Lam KC. Enhancing clinical education using an EMR system. *Network News: the Secondary School Athletic Training Practice-Based Research Network*. 2011;1(2):1.

Snyder AR, **Lam KC**. Take action and seize opportunity. *International Journal of Athletic Therapy and Training*. 2011;16(1):5-7.

Lam KC. Clinical Outcomes Research and Education for Athletic Trainers (CORE-AT): an overview of the electronic medical record system. *Network News: the Secondary School Athletic Training Practice-Based Research Network*. 2010;1(1):1.

Lam KC, Snyder Valier AR, Bay RC, Valovich McLeod TC. Identifying differences in health-related quality of life between adolescent athletes and the general adolescent population. *Interdisciplinary Biomedical Research Symposium at A.T. Still University*, Poster Presentation, Kirksville, MO; October 2010.

Lam KC, Wagenaar, RC. The effects of walking velocity on maximum knee flexion angle during stance phase in bipedal locomotion. *Science and Engineering Day at Boston University*, Poster Session, Boston, MA; March 2009.

COMMITTEES AND SERVICE

Professional

Reviewer, Journal of Sports Rehabilitation, 2010-present

Reviewer, Athletic Therapy Today, 2010-present

Moderator, NATA Annual Meeting and Symposium, 2010

Medical Volunteer, PF Chang's Rock n' Roll Marathon, Phoenix, AZ, 2011

Medical Volunteer, Boston Marathon, Boston, MA, 2001

Institutional

Member, Faculty Affairs Committee, A.T. Still University, 2011-present

Member, Interdisciplinary Research Committee, A.T. Still University, 2009-present

Member, Still Research Institute, A.T. Still University, 2009-present

CONTINUING EDUCATION

NATA Athletic Training Educators' Conference: 2009, 2011

ATSU Concussion Management Seminar: 2010

NATA Annual Meeting and Clinical Symposium: 2002 – 2005, 2009, 2010

AzATA Annual Meeting and Symposium: 2010

Approved Clinical Instructor Seminar: Boston University, 2003, 2004, 2006 – 2008

Graston In-Service: Boston University, 2008

EATA Annual Meeting and Symposium: 2007

ACL Injury Prevention Program: Children's Hospital Boston, 2006

Kinetic Chain Clearing in the Shoulder: University of Medicine and Dentistry of NJ, 2005

PROFESSIONAL CERTIFICATIONS

Certified Athletic Trainer: Board of Certification (#060302043), 2003- present

Licensed Athletic Trainer: State of Arizona (#0994), 2010 – present

Licensed Athletic Trainer: Commonwealth of Massachusetts (#1539-AT), 2003 – present

Licensed Athletic Trainer: State of New Jersey (25MT00123700), 2004-2006, inactive

PROFESSIONAL MEMBERSHIPS

National Athletic Trainers' Association: 2000 – present

Rocky Mountain Athletic Trainers' Association: 2009 – present

Arizona Athletic Trainers' Association: 2010 – present

Eastern Athletic Trainers' Association: 2000 – 2009

Athletic Trainers of Massachusetts: 2005 – 2009

Athletic Trainers' Society of New Jersey: 2004-2006

AWARDS AND SKILLS

Excellence Award, Nominee, A.T. Still University, November 2010

Research Equipment and Software: SPSS, OpenStat, EndNote, Teleform, MATLAB,
Optotrak 3020 System
Computer Skills: Microsoft Word, Excel, and PowerPoint
Foreign Language: Chinese (Cantonese)