Postdoctoral Position in Applied Psychometrics

Medical Social Sciences
Northwestern University Feinberg School of Medicine
Chicago, Illinois

Overview
The Department of Medical Social Sciences (MSS), Feinberg School of Medicine, Northwestern University invites applications for post-doctoral candidates with strong skills in psychometric analysis. The Department provides a unique scientific home for applied researchers who integrate biomedical and social science approaches to improvement of health and health care delivery across the lifespan (www.mss.northwestern.edu). MSS provides rich resources for conducting research including a broad scientific portfolio with multiple, large scale datasets across the lifespan, biostatistical and health informatics cores, expertise in assessment methods and collaborative relationships across Northwestern’s biomedical and life sciences campuses. In particular, MSS and its Center on Patient-Centered Outcomes within the Institute for Public Health & Medicine has an extensive array of funded research focused on patient-centered outcomes research including outcomes measurement, psychometrics, quality of care, symptom management, and comparative effectiveness research.

We are seeking post-doctoral candidates whose research focuses on applications of psychometric methods or who are interested in applying a range of psychometric techniques to health outcomes. The ideal candidate will have expertise in item response theory (IRT) and the development of computer adaptive tests (CAT). Research projects will emphasize measurement and evaluation of patient reported outcomes (PROs), the use of IRT and CAT for the assessment of health and functioning, as well as a wide range of traditional analytic methods.

Supervision
This position will receive a minimum of two hours per week of individual supervision by a psychometric scientist or co-investigator on the faculty. Collaboration in multiple research projects will be arranged. Post-docs also have the opportunity to interact with medical researchers within the MSS and across the Northwestern medical community.

Project Role
The post-doc position will support instrument development activities by conducting and writing about quantitative analyses, including exploratory and confirmatory factor analyses, IRT calibration, and linking (scale alignment), among others. The post-doctoral candidate will work on two projects that are extensions of the NIH-funded Patient Reported Outcomes Measurement Information System (PROMIS). PROMIS is a large, multi-institutional cooperative group of researchers around the U.S. who have been working for the past 7 years to develop a set of novel, rigorously developed patient-reported measures of health status designed to standardize measurement across a range of chronic conditions.

The first project supports the implementation of the Pain Assessment Screening Tool and Outcomes Registry (PASTOR). PASTOR is a comprehensive assessment tool and registry intended to enhance pain care across the Department of Defense (DoD) and Veteran’s Health Affairs (VHA) health care systems. PASTOR is an extension of the PROMIS that measures domains important to multiple chronic conditions – including not only pain, but also other related
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physical and mental health domains. In PASTOR, administration of PROMIS instruments has been adapted for clinical use in military populations.

The second project, sponsored by the AO Foundation, seeks to validate the PROMIS Physical Function instruments in specific clinical populations, namely orthopaedic trauma patients. Orthopaedic surgeons need accurate patient-centered research tools in order to compare the outcomes of different treatments and monitor patient improvement. Because orthopaedic trauma patients may return to high physical function after recovering from injury, this field could greatly benefit from improvements in the PROMIS Physical Function tool to measure high ability accurately.

Qualifications
This position is open to individuals who have completed a Ph.D. program in psychology, sociology, education, or health science. Candidates should have extensive experience with quantitative analysis of social science data and a strong record of scholarly publication, appropriate given experience. Experience with IRT analysis, CAT, and health outcomes research is preferred, but not required. Candidates with experience in educational testing are encouraged to apply. All requirements including the dissertation must be completed before entry into the fellowship.

Interested applicants should contact:
Richard Gershon, Ph.D., c/o Robin Morrissey
Department of Medical Social Sciences
Northwestern University
mss@northwestern.edu

Applications must be received by May 1st, 2014.

Send by e-mail the following: 1) a letter of interest in the fellowship including professional goals and areas of research interest; 2) a curriculum vita; 3) three letters of recommendation or references; 4) representative reprints of publications or submitted manuscripts. 5) In the subject line of the e-mail please include “Applied Psychometrics postdoc”

Final candidates will be interviewed by phone or in person. The fellowship contract will be contingent upon receiving a letter from the Ph.D. program’s director stating that all requirements for the Ph.D. have been successfully completed.

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