

HEINEMANN, ALLEN



Rehabilitation Institute of Chicago  
Center for Rehabilitation  
Outcomes Research

Allen Heinemann  
Director

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November 8, 2007  
Richard M. Green, MD  
Associate Professor of Medicine  
Director, Medical Student Summer Research  
and Research Thesis Programs  
Feinberg School of Medicine  
Northwestern University  
303 E Chicago Ave  
Searle 10-541  
Chicago, IL 60611

Dear Dr. Green:

Please find attached details about research opportunities for the Medical Student Summer Research Program. The Physical Medicine and Rehabilitation faculty working in the Center for Rehabilitation Outcomes Research at RIC are available and ready to provide research training opportunities next summer. We are motivated by a desire to be a more integral part of the educational mission of the School and University and are prepared to do so by extensive interactions with students, residents, and fellows over the past 20 years.

I appreciate the reminder about this program and look forward to identifying and recruiting students into your program who can work on various funded projects. My colleagues and I are pleased to support the educational mission of the Feinberg School

Do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Allen W. Heinemann".

Allen W. Heinemann, PhD, ABPP  
Professor, Department of Physical Medicine and Rehabilitation  
Director, Center for Rehabilitation Outcomes Research

cc: Sue Anne Tae [s-tae@northwestern.edu](mailto:s-tae@northwestern.edu)

**Medical Student Summer Research Program (MSSRP)  
and Research Thesis Program (RTP)  
Mentor Information**

**1) Research description**

**a) General research description**

Health services researchers based at the Center for Rehabilitation Outcomes Research at the Rehabilitation Institute of Chicago, who have faculty appointment in the Feinberg School of Medicine's Department of Physical Medicine and Rehabilitation, have made a significant investment in acquiring Medicare Beneficiary Claims and Assessment files. We have purchased data that includes all hospital and skilled nursing facility discharges for the years 2000 through 2005.

Our research focus is on functional recovery and costs of rehabilitation, so we also have patient assessment data for those years including the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI), Minimum Data Set (MDS), and Outcome Assessment Information System (OASIS), which are the patient assessment instruments used in inpatient rehabilitation, skilled nursing facilities and home health agencies, respectively. We also have the associated Medicare Denominator files which include demographic and insurance status data. We also have hospital cost report data for the same years, which provide information regarding hospital characteristics, services and staffing levels. These are rich sets of data that provide the opportunity to examine a vast range of health care questions.

**b) Description of potential MSSRP or RTP student projects**

While our own research focus is on rehabilitation outcomes in post-acute care settings, student projects could address numerous areas related to access, utilization, costs, and outcomes of post-acute care. Students could examine health services research questions for almost any group relevant to the Medicare population. This includes those over the age of 65 years and those eligible through disability. Because we have data that spans numerous years, students can examine trends over time or could examine a particular year of interest, or look at a relatively rare condition because a sample could be developed from numerous years of data. We will purchase Medicaid claims data, and these data may be available for analyses by the summer 2008.

**2) Cover letter explaining the reasons for your interest in becoming a mentor (attached)**

**3) Current Biosketch** – attached for Allen Heinemann, Trudy Mallinson, Anne Deutsch

**4) Trainees over the past 5 years (all post-doctoral fellows)**

Hagay Amir: Orthopedic Consultant of the Surgeon General, Sackler School of Medicine,  
Israel

Penny Brucker: Research Scientist, Evanston Northwestern Healthcare, Evanston

Anne Deutsch: Assistant Professor, Department of PM&R, Feinberg School of Medicine,  
Northwestern University

Xiaoxing He: Health Scientist, Resolution Health, Inc., Philadelphia

Renanah Lehner: Psychologist, Trilogy, Inc., Chicago

Janice Plahuta: Senior Research Associate, Institute for the Future of Aging Services, AAHSA

Deepa Rao: Research Scientist, Evanston Northwestern Healthcare, Northwestern University

Parag Shah: Lecturer, Department of Pediatrics, Feinberg School of Medicine, Northwestern  
University

Melissa Walker: Associate Professor, Department of Public Policy, Wichita State University

**Research area (check all that apply):**

- Basic Science
- Translational Science
- Clinical Science
- Other – Health Services Research

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on  
Form Page 2.

Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Allen W. Heinemann, Ph.D.	POSITION TITLE
eRA COMMONS USER NAME ALLENHEINEMANN	Professor, Physical Medicine and Rehabilitation

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, and*

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Washington State University, Pullman, WA	BS	1977	Psychology
University of Kansas, Lawrence, KS	MA	1980	Psychology
University of Kansas, Lawrence, KS	PhD	1982	Psychology

**A. Positions and Honors**

**Positions and Employment**

1982-85	Assistant Professor, Psychology, Illinois Institute of Technology, Chicago IL
1985-87	Assistant Director, Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago, Chicago
1985-88	Assistant Professor, Physical Medicine and Rehabilitation, Northwestern University Feinberg School of Medicine, Chicago IL
1988-present Chicago	Director, Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago, Chicago
1988-96	Associate Professor, Physical Medicine and Rehabilitation, Northwestern University Feinberg School of Medicine, Chicago IL
1996-present	Professor, Physical Medicine and Rehabilitation, Northwestern University Feinberg School of Medicine, Chicago IL
1996-present	Associate Director of Research, Rehabilitation Institute of Chicago, Chicago

**Other Experience and Professional Memberships**

1999-2004	Behavioral Medicine: Interventions and Outcomes study section member, National Institutes of Health, Center for Scientific Review, Department of Health and Human Services ( <i>ad hoc</i> contributions continue to 2006).
2001	Grant reviewer, Rehabilitation Outcomes Research Center, Veterans Affairs Rehabilitation Research and Development Service and Health Services Research and Development, Washington, DC
2003- present	Member, Function, Integration and Rehabilitation Sciences Subcommittee, National Institute of Child Health and Human Development Initial Review Group, National Institute of Child Health and Human Development
2004-present	Member, Model Systems Review Panel, National Institute on Disability and Rehabilitation Research
2005-present	Member, Committee to Study the Listing of Impairments and Agency Access to Medical Expertise in the Social Security Disability Determination Process, Institute of Medicine
2005-present	Trustee, Foundation for Rehabilitation Psychology; Secretary, 2005-present
2005	Member, Medicare Payment Advisory Commission (MedPAC) Panel on Post Acute Care
2005	Chair, Planning Meeting Board on Military and Veterans Health, Medical Follow-Up Agency, Institute of Medicine of the National Academies
2004-2005	President, Division 22 (Rehabilitation Psychology), American Psychological Association
2004-2005	President, American Congress on Rehabilitation Medicine
2005	Chair, Planning Meeting Board on Military and Veterans Health, Medical Follow-Up Agency, Institute of Medicine of the National Academies

- 2006-present Member, Secretary's Advisory Committee for Injury Prevention and Control (ACIPC), Centers for Disease Control and Prevention
- 2006 Expert Panel Member, Social Security Advisory Board, Panel focused on disability definition used by SSA

#### Honors

- 1998 Recipient, Harold Yuker Award for Research Excellence (most outstanding article appearing in Rehabilitation Psychology) with Darlene Hawkins (first author) for: "Substance abuse and medical complications following spinal cord injury," *Rehabilitation Psychology*, 43.
- 1998 Fellow, American Psychological Association, Division of Rehabilitation Psychology
- 2000 Recipient, Roger Barker Distinguished Career Award, presented by Division 22 (Rehabilitation Psychology), APA, "in recognition of outstanding lifetime contributions to the science of rehabilitation psychology."
- 2003 Recipient, Essie Morgan Excellence Award, American Association of Spinal Cord Injury Psychologists and Social Workers.
- 2004 Recipient, Harold Yuker Award for Research Excellence (most outstanding article appearing in Rehabilitation Psychology) with NA Doninger, AW Heinemann, RK Bode, K Sokol, JD Corrigan, D Moore for "Predicting community integration following TBI with health and cognitive status measures," *Rehabilitation Psychology*, 48, 156-166.
- 2005 Fellow, American Congress of Rehabilitation Medicine
- 2005 Morita Distinguished Fellow, Rehabilitation Hospital of the Pacific, Honolulu, Hawaii

#### B. Selected peer-reviewed publications (selected from 136)

- Cox WM, Heinemann AW, Miranti SV, Schmidt M, Klinger E, Blount J. Outcomes of systematic motivational counseling for substance use following traumatic brain injury. *Journal of Addictive Diseases*, 22(1): 93-110, 2003.
- Doninger NA, Heinemann AW, Bode RK, Sokol K, Corrigan JD, Moore D. Predicting community integration following traumatic brain injury with health and cognitive status measures. *Rehabilitation Psychology*, 48(2), 67-76, 2003.
- Larson EB, Kirschner K, Bode RK, Heinemann AW, Clorfene J, Goodman R. Brief cognitive assessment and prediction of functional outcome in stroke. *Topics in Stroke Rehabilitation*, 9(4):10-21, 2003.
- Heinemann AW, Roth EJ, Rychlik K, Pe K, King C, Clumpner J. The impact of stroke practice guidelines on knowledge and practice patterns of acute care health professionals. *Journal of Evaluation in Clinical Practice*, 9(2), 203-212, 2003.
- Lai J-S, Cella D, Chang C-H, Bode R, Heinemann A. Item banking to improve, shorten and computerize self-reported fatigue: An illustration of steps to create a core item bank from the FACIT-Fatigue Scale. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation*, 12(5), 485-501, 2003.
- Chang CH, Cella D, Clarke S, Heinemann AW, von Roenn JH, Harvey R. Should symptoms be scaled for intensity, frequency, or both? *Palliative and Support Care*, 1, 51-60, 2003.
- Bode RK, Cella D, Lai J-S, Heinemann AW. Developing an initial physical function item bank from existing sources. *Journal of Applied Measurement*, 4(2), 124-136, 2003.
- Bode RK, Rychlik K, Lovell L, Heinemann AW, Modla L. Reconceptualizing poststroke activity level using the Frenchay Activities Index. *Topics in Stroke Rehabilitation*, 9(4), 82-91, 2003.
- Bode RK, Lai J-S, Cella D, Heinemann A. Issues in the development of an item bank. *Archives of Physical Medicine and Rehabilitation*, 84(4), S52-S60, 2003.
- Shin JY, Heinemann AW, Gaebler-Spira D, Simpson J. Long-term adjustment of families of children with spinal cord injury. *International Journal of Child and Family Welfare*, 6 (3), 77-90, 2003.
- Heinemann AW, Bode R, O'Reilly C. Development and measurement properties of the orthotics and prosthetics users' survey (OPUS): A comprehensive set of clinical outcome instruments. *Prosthetics and Orthotics International*, 27, 191-206, 2003.
- Chen CC, Heinemann AW, Bode RK, Granger CV, Mallinson T. Impact of pediatric rehabilitation services on children's functional outcomes. *American Journal of Occupational Therapy*, 58, 44-53, 2004.
- He XZ, Lyons JS, Heinemann AW. Modeling crisis decision-making for children in state custody. *General Hospital Psychiatry*, 26(5), 378-383, 2004.
- Heinemann AW, Corrigan JD, Moore, D. Case management for TBI survivors with alcohol problems. *Rehabilitation Psychology*, 49(2), 156-166, 2004.
- Larson EB, Kirschner K, Bode RK, Heinemann AW, Goodman R. Construct and predictive validity of the

- Repeatable Battery for the Assessment of Neuropsychological Symptoms in the evaluation of stroke patients. *Journal of Clinical and Experimental Neuropsychology*, 27, 16-32, 2005.
- Bode RK, Heinemann AW, Semik P, Mallinson T. Patterns of therapy activities across lengths of stay and impairment levels: Peering inside the "Black Box" of inpatient rehabilitation. *Archives of Physical Medicine and Rehabilitation*, 85(12). 1901-1908, 2004.
- Gauggel S, Heinemann A, Böcker M, Lämmle G, Borchelt M, Steinhagen-Thiessen, E. Patient-staff agreement on Barthel Index scores at admission and discharge in a sample of elderly stroke patients. *Rehabilitation Psychology*, 49(1), 21-27, 2004.
- Dobrez D, Lo Sasso A, Heinemann A. The effect of prospective payment on rehabilitative care. *Archives of Physical Medicine and Rehabilitation*, 85(12), 1909-1914, 2004.
- Bode RK, Heinemann AW, Semik P, Mallinson T. Relative importance of rehabilitation therapy characteristics on functional outcomes for persons with stroke. *Stroke*, 35(11):2537-42, 2004.
- Keren O, Motin M, Heinemann AW, O'Reilly CM, Bode RK, Semik P, Ring H. Relationship between rehabilitation therapies and outcome of stroke patients in Israel – a preliminary study. *Israel Medical Association Journal*, 6, 736-741, 2004.
- Corrigan J, Bogner J, Lamb-Hart G, Heinemann AW, Moore D. Increasing substance abuse treatment compliance for persons with traumatic brain injury. *Psychology of Addictive Behaviors*, 19(2), 131-139, 2005.
- Heinemann AW. What is an outcome? A rehabilitation psychology perspective. *Rehabilitation Psychology*, 50(1), 6-14, 2005.
- Deutsch A, Granger CV, Fiedler RC, DeJong G, Kane RL, Ottenbacher KJ, Heinemann AW, Naughton JP, Trevisan M. Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs for Medicare beneficiaries with hip fracture. *Medical Care*, 43(9), 892-901, 2005.
- Pape TL-B, Heinemann AW, Kelly JP, Hurder AG, Lundgren S. A measure of neurobehavioral functioning after coma. Part 1: Theory, reliability and validity of Disorders of Consciousness Scale. *Journal of Rehabilitation Research and Development*, 42(1), 1-17, 2005.
- Chen CC, Bode RK, Granger CV, Heinemann AW. Psychometric properties and developmental differences in children's ADL item hierarchy: A study of the WeeFIM instrument. *American Journal of Physical Medicine and Rehabilitation*, 84(9), 671-679, 2005.
- Sliwa JA, Heinemann AW, Semik P. Inpatient rehabilitation following burn injury: Patient demographics and functional outcomes. *Archives of Physical Medicine and Rehabilitation*, 86(10), 1920-1923, 2005.
- Hartke RJ, King RB, Heinemann, AW, Semik P. Accidents in older caregivers of persons surviving stroke and their relation to caregiver stress. *Rehabilitation Psychology*, in press.
- Heinemann AW, Fisher W. Development and application of the orthotics and prosthetics user survey: Applications and opportunities for healthcare quality improvement, *Journal of Prosthetics and Orthotics*, in press.

#### **Books and Book Chapters (selected from 25)**

- Heinemann AW (Ed.): *Substance abuse and physical disability*. New York: Haworth Press, 1993.
- Wright BD, Linacre JM, Heinemann AW: Measuring functional status in rehabilitation. In CV Granger and GE Gresham (Eds.), *Physical Medicine and Rehabilitation Clinics of North America: New Developments in Functional Assessment*, 4:475-492, 1993.
- Heinemann AW: Spinal cord injury. In AJ Goreczny (Ed.), *Handbook of Health and Rehabilitation Psychology*. New York: Plenum, 341-360, 1995.
- Heinemann AW: Measures of coping and reaction to disability. In L Cushman & MJ Scherer (Eds.), *Psychological assessment in medical rehabilitation settings*. Washington, D.C.: American Psychological Association Press, 39-79, 1995.
- Heinemann AW: Persons with disabilities. In JH Lowinson, P Ruiz, RB Millman, JG Langrod (Eds.), *Substance abuse: A comprehensive textbook* (3rd ed.). Baltimore, MD: Williams and Wilkins, 716-725, 1997.
- Heinemann AW: Spinal cord injury. In MG Eisenberg, RL Glueckhauf, HH Zaretsky (Eds.), *Medical aspects of disability: A handbook for the rehabilitation professional* (2<sup>nd</sup> ed.). New York: Spring Publishing Company, 1999.
- Schmidt MF, Heinemann AW. Substance abuse interventions for people with brain injury. In KG Langer, L Laatsch, L Lewis (Eds.) *Psychotherapeutic interventions for adults with brain injury or stroke: A clinician's treatment resource* (pp 211-238). Madison, CT: Psychosocial Press, 1999.
- Heinemann AW. Quality of life and life satisfaction studies. *Report of the NIH Consensus Development Conference on the Rehabilitation of Persons with Traumatic Brain Injury* (pp 129-134). National Institute of Child Health and Human Development, September, 1999.
- Heinemann AW: Functional status and quality-of-life measures. In RG Frank and TR Elliott (Eds.) *Handbook*

of *Rehabilitation Psychology* (pp 261-286). Washington, DC: American Psychological Association, 2000.

Cella D, Chang CH, Heinemann AW. Item response theory (IRT): Applications in quality of life measurement, analysis and interpretation. In M Mesbah, BF Cole, M-LT Lee (Eds.): *Statistical methods for quality of life studies: Design, measurement and analysis*. Kluwer Academic Publishers, 2002.

Miranti, SV, & Heinemann AW. Systematic motivational counseling in rehabilitation medicine (chapter 15, pages 301-317). In Cox WM, Klinger E (editors), *Handbook of motivational counseling: Concepts, approaches and assessment*. London: John Wiley & Sons, Ltd., 2003.

Heinemann AW, Rawal PH. Disability and rehabilitation issues. In Lowinson J, Ruiz, P, Millman RB, Langrod JG (Editors), *Substance abuse: A comprehensive textbook* (4<sup>th</sup> edition; 1169-1187). Baltimore: Lippincott, Williams & Wilkins, 2004.

Heinemann AW, Rawal PH. Spinal cord injury. In AJ Goreczny (Ed.). *Handbook of Health and Rehabilitation Psychology*, 2005.

Heinemann AW. Foreword. In Nikolaus Bezruczko (Ed.). *Rasch Measurement in Health Sciences*. Maple Grove, MN: JAM Press, 2005.

Heinemann AW. Member, senior editorial board, and Author, *Rehabilitation Psychology* entry. In GL Albrecht, *Encyclopedia of Disability*. Thousand Oaks, CA: Sage, 2005.

### C. Research Support

#### Active

RERC H133E980023	(Childress)	10/01/03-09/30/08
US Department of Education/NIDRR Rehabilitation Engineering Research Center on Prosthetics and Orthotics The purpose of this project, Development of Outcome Measures for Prosthetic and Orthotic Users, is to develop new instruments to describe recovery. Role: Project PI		
RRTC H133B980021	(Roth)	10/01/03-09/30/08
US Department of Education/NIDRR Rehabilitation Research and Training Center on Stroke Dr. Heinemann assists with methodology, data and cost effectiveness analyses for projects evaluating assistive technology for persons post-stroke. Role: Co-investigator		
DRRP H133A030807	(Heinemann)	07/01/03-06/30/08
US Department of Education/NIDRR Health Services Research DRRP on Prospective Payment This project explores issues related to access, services and outcomes of health services to persons with disabilities. It explores the effects of the IRF PPS on access to rehabilitation services in terms of settings, services and length of stay and by identifying the impact of comorbidities on how patients are classified and reimbursed under the new IRF PPS. Role: PI		
ARRT H133P980014	(Heinemann)	07/01/03-06/30/08
US Department of Education/NIDRR Project: Advanced Rehabilitation Research Training Project in Rehabilitation Services Research Purpose: The purpose of this project is to train post-doctoral researchers in health services research. Role: PI		
RRTC H133B040032	(Heinemann)	12/01/04-11/30/09
US Department of Education/NIDRR Project: RRTC for Health and Function Outcomes for Individuals with Disabilities Project aims: This program of research will (1) equate the functional status instruments used in post-acute care resulting in a simple-to-use cross walk between any of the instruments; (2) connect rehabilitation outcomes to longer-term community participation as measured by an innovative new instrument based on the ICF classification; (3) develop a community participation measure that reflects the perspectives of several stakeholder groups; (4) develop innovative methods to collect rehabilitation outcomes data; and (5) obtain stakeholder input on information and reporting formats they need to make service selection decisions. Role: PI		

HHSN 2652004236-01C NIH – NINDS – 03-04 Quality of Life Outcomes in Neurological Disorders Project aims: The objective of this contract is to develop a psychometrically robust “health-related quality of life” (HRQL) measurement tool that is accepted by the neurology clinical trials and clinical research communities Role: Co-investigator	(Cella)	09/30/04-09/29/09
CA 60068-09 NIH – NCI Item Banking and CAT for QoL Outcomes This project proposes the first randomized clinical trial worldwide using measurement accurate enough for reliable individual assessment, coupled with point-of-care recommendations for management. Role: Co-investigator	(Cella)	04/08/05-02/28/08
U01AR052177-01 NIH – NIAMS NIH PROMIS Statistical Coordinating Center This proposed Statistical Coordinating Center (SCC) for the Patient reported Outcomes Measurement Information System (PROMIS) will provide and manage a secure, customizable data collection, management and reporting system, and provide leadership and expertise in psychometric and statistical analyses. Role: Co-investigator	(Cella)	09/28/04-07/31/09
H133B040012 US Department of Education/NIDRR RRTC on Substance Abuse, Disability, and Employment This project will establish data collection sites in Illinois through communication and reapport building with state-level VR administrators; and will conduct data analyses related to project including a factor analysis on an existing SASSI database and analysis of data collected throughout the study period. Role: Co-investigator	(Moore)	12/01/04-11/30/09

## BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Mallinson, Trudy R.	Associate Director, Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago Research Assistant Professor, Department of Physical Medicine and Rehabilitation, Northwestern University

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Central Institute of Technology	Dip. Occ. Ther.	1983	Occupational Therapy
University of Canterbury, Christchurch, New Zealand	B.Sc.	1989	Psychology & Education
University of Illinois at Chicago, Chicago, Illinois, USA	M.S.	1994	Occupational Therapy
University of Illinois at Chicago, Chicago, Illinois, USA	Ph.D.	2000	Public Health
Northwestern University, Chicago, Illinois, USA	Post. Doc.	2002	Health Service Research

### A. Positions

#### Positions and Employment

1983-1985	Staff Occupational Therapist – Physical Medicine & Rehabilitation, Christchurch Hospital, Christchurch, New Zealand
1985-1986	Staff Occupational Therapist – Pediatrics, Christchurch Hospital, Christchurch, New Zealand
1986-1987	Acting Section Head – Occupational Therapy Pediatrics, Christchurch Hospital, Christchurch, New Zealand
1990-1991	Senior Pediatric Occupational Therapist, Moulsham Grange Children’s Center, Chelmsford, Essex, England
1991	Occupational Therapist, Mercy Hospital and Medical Center, Chicago IL
1993-1999	Coordinator, Model Of Human Occupation Clearinghouse, Department of Occupational Therapy, University of Illinois at Chicago, Chicago IL
1993-1997	Coordinator, AOTA/AOTF Center of Research, Department of Occupational Therapy, University of Illinois at Chicago, Chicago IL
1995-2000	Research Specialist, Department of Occupational Therapy, University of Illinois at Chicago, Chicago IL
1995-2000	Adjunct Professor, Department of Occupational Therapy, University of Illinois at Chicago, Chicago IL
2000-2002	NIDRR Postdoctoral Fellow, Institute for Health Services Research and Policy Studies, Northwestern University
2002-present	Research Assistant Professor, Department of Physical Medicine & Rehabilitation, Feinberg School of Medicine, Northwestern University, Chicago IL
2002-2004	Clinical Research Scientist, Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago, Chicago IL
2004-present	Associate Director, Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago, Chicago, IL

#### Honors

1998	20th Annual College of Associated Health Professions Research Forum Student Abstract Award, University of Illinois at Chicago, Chicago, IL
2000-present	Member, Center for Outcomes Research, Department of Occupational Therapy, University of

## B. Selected Peer-Reviewed Publications

1. Kielhofner, G. & **Mallinson, T.** (1995). Gathering narrative data through interviews: Empirical observations and suggested guidelines. *Scandinavian Journal of Occupational Therapy*, 2, 63-68.
2. **Mallinson, T.**, Kielhofner, G. & Mattingly, C. (1996). Like being stuck in flypaper: Metaphor and meaning in a clinical interview. *American Journal of Occupational Therapy*, 50, 338-346.
3. Kielhofner, G. & **Mallinson, T.** (1997). Bodies telling stories and stories telling bodies: Commentary on a World Without Words. *Human Studies*, 20, 1-5.
4. **Mallinson, T.** & Mahaffey, E. M. & Kielhofner, G. (1998). The Occupational Performance History Interview: Evidence for three underlying constructs of occupational adaptation. *Canadian Journal of Occupational Therapy*, 65, 219 - 228.
5. Velozo, C., Lai, J-S., **Mallinson, T.**, & Hauselman, E. (2000). Maintaining instrument quality while reducing items: Application of Rasch analysis to a self-report of visual function. *Journal of Outcome Measurement*, 4, 667-680.
6. Kielhofner, G., **Mallinson, T.**, Forsyth, K., & Lai, J-S. (2001). Psychometric properties of the second version of the Occupational Performance History Interview (OPHI-II). *American Journal of Occupational Therapy*, 55, 260-267.
7. **Mallinson, T.** & Stelmack, J. (2001). Going beyond unreliable reliabilities. *Rasch Measurement Transactions*, 14 (4), 787-788.
8. **Mallinson, T.**, Stelmack, J., & Velozo, C. (2004). A Comparison of the Separation Ratio and Coefficient {alpha} in the Creation of Minimum Item Sets. *Medical Care*, 42(1) (Supplement):I-17-24.
9. Chen, C. C., Heinemann, A.W., Bode, R.K., Granger, C.V, & **Mallinson, T.** (2004). Impact of pediatric rehabilitation services on children's functional outcomes. *American Journal of Occupational Therapy*, 58, 44-53.
10. **Mallinson, T.** & Heinemann, AW. (2004). What evidence supports Medicare's draft local medical review policy for inpatient rehabilitation. *Rehabilitation Outlook*, Winter, 4-6.
11. Bode RK, Heinemann AW, Semik P, **Mallinson T.** (2004). Patterns of therapy activities across lengths of stay and impairment levels: Peering inside the "Black Box" of inpatient rehabilitation. *Archives of Physical Medicine and Rehabilitation*, 85(12), 1901-1908.
12. Bode, RK, Heinemann AW, Semik P, **Mallinson T.** (2004). Relative importance of rehabilitation therapy characteristics on functional outcomes for persons with stroke. *Stroke*, 35, 2537-42.
13. Finlayson, M., **Mallinson, T.**, & Barbossa, V. (2005). Investigating the stability of ADL & IADL items across time. *Journal of Clinical Epidemiology*, 54, 338-349.
14. Mallinson, T., Cella, D., Cashy, J., Holzner, B. (2006). Giving meaning to measure: Linking self-reported fatigue and function to performance of everyday activities. *Journal of Pain & Symptom Management*, 31(3), 229-241.
15. Elliott DB., Pesudovs K, & **Mallinson, T.** (2007). Vision-Related Quality of Life. *Optometry and Vision Science*, 84(8), 656-658.
16. **Mallinson, T.** (2007). Why measurement matters when measuring patient vision outcomes. *Optometry and Vision Science*, 84(8), 675-682.

## Books, Book Chapters, & Dissertation

1. Kielhofner, G. & **Mallinson, T.** (1995). Application of the model in practice: Case illustrations. In: G. Kielhofner (Ed.), *A Model of Human Occupation: Theory and Application*. Baltimore: Williams & Wilkins.
2. Kielhofner, G., **Mallinson, T.**, & de las Heras, C. (1995). Methods of data gathering. In: G. Kielhofner (Ed.), *A Model of Human Occupation: Theory and Application*. Baltimore: Williams & Wilkins.
3. Kielhofner, G. & **Mallinson, T.** (1995). Gathering and reasoning with data during intervention. In: G. Kielhofner (Ed.), *A Model of Human Occupation: Theory and Application*. Baltimore: Williams & Wilkins.
4. Henry, A. & **Mallinson, T.** (1999). The Occupational Performance History Interview (2nd Version). In: B. Hemphill (Ed.), *Mental Health Assessment in Occupational Therapy: An integrative approach to the evaluative process*. Thorofare, NJ: Slack Incorporated.
5. **Mallinson, T.** (2000). Examining functional change in community-living stroke survivors. *Dissertation Abstracts*

- International*, DAI-B 61/07, (University Microfilms No. AAT9978786).
6. **Mallinson, T.** & Cella, D. (2004). Fatigue and Everyday Function in People Living with Cancer. In, *Fatigue in Cancer*, Eds: Armes, Krishnasamy & Higginson. London: Oxford University Press.
  7. **Mallinson, T.** (2006). Activities of Daily Living. In *Encyclopedia of Disability*, Ed: G. Albrecht. Thousand Oaks, CA: Sage Publications.
  8. Heinemann AW, **Mallinson, T.** (2007). Functional status and quality-of-life measures. In: RG Frank and TR Elliott (Eds.) *Handbook of Rehabilitation Psychology* (pp 261-286). Washington, DC: American Psychological Association.

### C. Research Support

#### Ongoing Support

RTOP-CMS-07-001 Gage (Principal Investigator) 2/1/07-1/30/11

Center for Medicare and Medicaid Services

Post Acute Care Payment Reform Demonstration (PAC:PRD)

This project is a four-year effort to test the patient assessment tool (developed under CMS-06-027) on a larger scale, collect cost and resource utilization data on PAC patients admitted from acute hospitals and develop models that will predict discharge, destination and PAC treatment costs. To develop these models, data will be collected from about 150 providers in 10 markets.

Role: Co-investigator on RIC subcontract

Funding: TBD

RTOP-CMS-06-027 Gage (Principal Investigator) 11/1/06-10/30/07

Center for Medicare and Medicaid Services

Post Acute Care: Patient Assessment Instrument Development

This is a project to develop a single comprehensive assessment tool for use in hospitals and post-acute care settings. This tool is needed to determine appropriate placement of patients based on standardized measures of individual beneficiary acuity and impairment levels. The tool must have the power to predict appropriate discharge destination, patient outcomes, and resource utilization. The tool must be ready for use in the 2008 federally-mandated demonstration project. This study will develop a minimum data set instrument and conduct two rounds of field-tests of this instrument in acute and post-acute care settings, refining the instrument between each round of tests. Preliminary instrument psychometrics will be evaluated.

Role: Principal Investigator on RIC subcontract

Funding: \$326,110

R01 AR05291 Chang (Principal Investigator) 29/1/05 – 8/31/10

National Institutes of Health (NIAMS)

Physical Activity Management for Clients with Arthritis

Specific Aims: In a randomized, controlled trial of 480 clients with RA and knee OA followed for 24 months, to test the effectiveness of physical activity management combined with physician physical activity promotion (PAM group) compared to physician physical activity promotion only (control group) in improving arthritis-specific and generic HRQOL, observed measures of function, and objectively measured and self-reported physical activity levels. Exploratory analyses will be done to assess whether the improvements in HRQOL and physical activity performance associated with the PAM program are mediated by increases in physical activity levels and theory-based motivational variables, respectively.

Role: Principal Investigator on RIC subcontract

Funding: \$438,812

RRTC #H133B040032 Heinemann (Project Director) 12/01/04-11/31/09

US Department of Education/NIDRR

Rehabilitation Research and Training Center on Measuring Rehabilitation Outcomes and Effectiveness

The purpose of this Rehabilitation Research and Training Center is to provide national leadership on the major functional assessment, outcomes, and health policy issues facing the medical rehabilitation community and the diverse consumers it seeks to serve. The Center will conduct research; host fo-rums for discussion; publish in the rehabilitation, health policy, and consumer literature; train new researchers in rehabilitation-focused health services research; and disseminate information to diverse consumer, provider, and academic audiences.

**Mallinson (PI)**

R1: Recovery of Function Across Rehabilitation Settings: An equating and effectiveness study

12/01/04-11/31/09

This project resolves the impossibility of comparing functional outcomes achieved in different post-acute care settings. CMS mandates a different data collection tool in each setting, making it virtually impossible to compare the functional status and gains of patients across settings. R1 will create a crosswalk across the instruments used in three PAC settings and use the equated scores in a series of econometric analyses to compare patient outcomes and Medicare's costs. This project will inform Medicare's payment and coverage policies and improve our understanding of patient recovery, relative post-acute use, and cost variations across rehabilitation settings.

Role: Principal Investigator

Funding: \$ \$1,280,922

DRRP H133A030807 Heinemann (PI)

07/01/03-06/30/08

US Department of Education/NIDRR

Health Services Research DRRP on Prospective Payment

This proposal addresses the absolute priority to improve the delivery of health services to persons with disabilities by evaluating the impact of the IRF PPS on access to rehabilitation services in terms of settings, services and length-of-stay and by identifying the impact of comorbidities on how patients are classified and reimbursed under the new IRF PPS.

Role: Co-investigator

**Completed Support**

H133F040010 Mallinson (PI)

09/01/04-08/31/05

US Department of Education/NIDRR

Switzer Distinguished Fellowship – Development of an Instrument to Promote Physical Activity in Persons with Arthritis

This fellowship application addresses an important health and function issue: inactivity-related functional limitations and activity restrictions associated with knee rheumatoid and osteoarthritis. The purpose of this study is to validate and refine an assessment and communication instrument, the Arthritis Comprehensive Treatment Assessment (ACTA). The ACTA is a collaborative communication instrument that identifies supports and barriers to participation in lifestyle physical activities.

Role: Primary investigator

Funding: \$55,000

97MALLI-TRU-INN Mallinson (PI)

04/98-12/99

American Occupational Therapy Foundation

Community Living Stroke Survivors: A Pilot Study of the Impact of Change in Functional Ability on Living Location

The goal of this project was to apply a novel statistical procedure to a large national rehabilitation outcomes database in order to better examine change in functional status across time by accounting for lack of independence amongst repeated measures.

Role: PI

94KIELHO-GAR Kielhofner (PI)

09/94-08/96

American Occupational Therapy Foundation

Efficacy of a Work Readiness Program

The goal of this project was to use a participatory action research model to examine the process and outcomes of a return-to-work program for persons with chronic disabilities.

Role: Co-investigator

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**BIOGRAPHICAL SKETCH**

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NAME Deutsch, Anne	POSITION TITLE Clinical Research Scientist & Research Assistant Professor
eRA COMMONS USER NAME	

EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Cincinnati, Cincinnati, OH	B.S.N	1986	Nursing
University at Buffalo, Buffalo, NY	M.S.	1992	Adult health nursing
University at Buffalo, Buffalo, NY	Ph.D.	2003	Epidemiology and community health
Northwestern University, Chicago, IL	Postdoc	2005	Health policy & health services research

**A. POSITIONS AND HONORS**

**Positions and Employment**

1986 -1988	Clinical Nurse I and II, University of Cincinnati Medical Center, Cincinnati, OH.
1988 -1991	Staff RN, Buffalo General Hospital, Buffalo, NY.
1988 -1991	Teaching/Research Assistant, School Of Nursing, State University of New York at Buffalo, Buffalo, NY.
1989 - 1991	Research Consultant, Center for Functional Assessment Research, School Of Medicine and Biomedical Science, State University Of New York at Buffalo, Buffalo, NY.
1991 - 1992	Staff Nurse, Mount Sinai Hospital, Toronto, Ontario, Canada.
1991 - 1995	Director of Education, Uniform Data System for Medical Rehabilitation, School of Medicine and Biomedical Sciences, State University of New York at Buffalo, Buffalo, NY.
1995 - 1997	Graduate Assistant, Department of Social and Preventive Medicine, School of Medicine and Biomedical Sciences, State University of New York at Buffalo, Buffalo, NY.
1992 - 2002	Adjunct Instructor, School of Nursing, State University of New York at Buffalo, Buffalo, NY.
1997 - 2002	Research Associate, Uniform Data System for Medical Rehabilitation, A Division of U.B. Foundation Activities, Inc., State University of New York at Buffalo, Buffalo, NY.
2003 - 2005	Postdoctoral Fellow, Institute for Health Services Research and Policy Studies, Northwestern University Feinberg School of Medicine, Chicago, IL.
2005 - present	Clinical Research Scientist, Rehabilitation Institute of Chicago, Chicago, IL
2005 - present	Research Assistant Professor, Dept. of Physical Medicine and Rehabilitation, Northwestern University Feinberg School of Medicine, Chicago, IL

**Other Experiences and Professional Memberships**

1985 - present	Sigma Theta Tau, International Honor Society of Nursing, Gamma Kappa Chapter. Induction Committee for Beta Iota Chapter, 1986-1987.
1986 - present	Association of Rehabilitation Nurses (ARN). Winner of the ARN's 1999 Malcolm Maloof Scholarship to attend the Nurse in Washington internship program; Chapter Education Committee, 1994; Chapter Nominating Committee, 1993; Chapter Secretary, 1988-1990.
1993 - present	Member, American Congress of Rehabilitation Medicine (ACRM). Program Committee, 2005 – present.

1998 - present	Member, American Public Health Association (APHA), Special Interest Group: Disability Forum.
1999 - present	Member, Academy Health.
2003 - 2005	Member, Technical Expert Panel: Centers for Medicare and Medicaid Services/RTI International: Developing Quality Indicators for Inpatient Rehabilitation Facilities.
2003 - present	Member, Technical Expert Panel: Centers for Medicare and Medicaid Services/Rand Corporation: Minimum Data Set 3.0.
2004	Member, Technical Expert Panel: Government Accountability Office: "75 Percent Rule" meeting held at the Institute of Medicine (July 2004).
2005 – present	Member, Policy Advisory Committee, JOINTS (Joint Replacement Outcomes in IRFS and Nursing Treatment) study (Gerben DeJong, PhD – Principal Investigator).

## B. SELECTED PEER-REVIEWED PUBLICATIONS

1. **Deutsch A**, Braun S, Granger C. The Functional Independence Measure and the Functional Independence Measure for Children: ten years of development. *Critical Reviews of Physical Medicine and Rehabilitation* 1996;8(4):267-281.
2. **Deutsch A**, Braun S, Granger CV. The Functional Independence Measure. *Journal of Rehabilitation Outcomes Measurement* 1996;1(2):67-71.
3. Granger CV, **Deutsch A**, Linn R. Rasch analysis of the FIM mastery test. *Archives of Physical Medicine and Rehabilitation* 1998;79:52-57.
4. Hamilton BB, **Deutsch A**, Russell C, Fiedler RC, Granger CV. Relation of disability costs to function: spinal cord injury. *Archives of Physical Medicine and Rehabilitation* 1999;80:385-391.
5. **Deutsch A**. Inpatient Rehabilitation Facility Prospective Payment System Began January 1, 2002. *Rehabilitation Nursing Journal* 2002;27(1):4,7.
6. **Deutsch A**, Fiedler RC, Granger CV, Russell CF. The Uniform Data System for Medical Rehabilitation Report of Patients Discharged from Comprehensive Medical Rehabilitation Programs in 1999. *American Journal of Physical Medicine and Rehabilitation* 2002;81:133-142.
7. **Deutsch A**, Fiedler RC, Iwanenko W, Granger CV, Russell CF. The Uniform Data System for Medical Rehabilitation Report of Patients Discharged from Subacute Rehabilitation Programs in 1999. *American Journal of Physical Medicine and Rehabilitation*, 2003;82:703-711.
8. **Deutsch A**, Granger CV, Fiedler RC, DeJong G, Kane RL, Ottenbacher KJ, Heinemann AW, Naughton JP, Trevisan M. Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs for Medicare beneficiaries with hip fracture. *Medical Care* 43, 892-901, 2005.
9. **Deutsch A**, Dean-Baar S. Summary of the GAO Report: Medicare – More Specific Criteria Needed to Classify Inpatient Rehabilitation Facilities. *Rehabilitation Nursing* 2005;30:219-222.
10. **Deutsch A**, Granger CV, Heinemann AW, Fiedler RC, DeJong G, Kane RL, Ottenbacher KJ, Naughton JP, Trevisan M. Post-stroke rehabilitation: Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs. *Stroke* 2006; 1477-1482.
11. Kay ED, **Deutsch A**, Wuermsler LA. Predicting walking at discharge from inpatient rehabilitation after a traumatic spinal cord injury. *Archives of Physical Medicine and Rehabilitation* 2007;745-50.
12. Granger CV, **Deutsch A**, Russell C, Black T, Ottenbacher KJ. Modifications to the FIM™ instrument under the inpatient rehabilitation prospective payment system. *American Journal of Physical Medicine and Rehabilitation*, in press.

## BOOK CHAPTERS AND DISSERTATION

1. Smith RM, Heinemann AW, Granger CV, Ottenbacher K, **Deutsch A**. Monitoring quality of rehabilitation care through structure, process and outcomes. In: N Goldfield and DB Nash. *Managing Quality of Care in a Cost-Focused Environment*, 2000: 211-221.
2. **Deutsch A**. Economics and health policy in rehabilitation. In: Rehabilitation Nurses' Foundation, editor. *The Specialty Practice of Rehabilitation Nursing: A Core Curriculum, 4<sup>th</sup> edition*. 2000.
3. Granger CV, Kelly-Hayes M, Johnson M, **Deutsch A**, Braun S, Fiedler RC, Quality and outcome measures for medical rehabilitation. In: Braddom RL, editor. *Physical Medicine and Rehabilitation*. 6th ed., Philadelphia: W. B. Saunders, 2001: 151-164.
4. **Deutsch, A**. *Outcomes and Reimbursement of Inpatient Rehabilitation Services for Patients with Stroke and Hip Fracture*, Ann Arbor, MI: UMI Dissertation Publishing, 2003.

## C. RESEARCH SUPPORT

### Completed Research Support

Switzer Fellowship                      H133F040032 Deutsch (PI)                      11/01/2004 –  
10/31/2005  
National Institute on Disability and Rehabilitation Research, Dept of Education  
Early Impact of the Inpatient Rehabilitation Facility Prospective Payment System  
Role: PI

Dissertation Grant                      30-P-30247      Deutsch (PI)                      01/06/2000 -  
01/05/2002  
Center for Medicare and Medicaid Services (formerly, Health Care Financing Administration), DHHS  
Outcomes and Reimbursement of Inpatient Rehabilitation Services for Medicare Beneficiaries with Stroke  
and Hip Fracture  
Role: PI

### Ongoing Support

Rehabilitation Research and Training Center                      H133A030807                      11/01/2005 –  
11/30/2009  
Allen W. Heinemann (PI)  
National Institute on Disability and Rehabilitation Research, U.S. Department of Education  
RRTC on Measuring Rehabilitation Outcomes and Effectiveness  
Role: co-investigator

Disability Rehabilitation Research Program                      H133A030807                      11/01/2005 –  
06/30/2008  
Allen W. Heinemann (PI)  
National Institute on Disability and Rehabilitation Research, U.S. Department of Education  
Disability Rehabilitation Research on Prospective Payment  
Role: co-investigator

Post Acute Care: Patient Assessment Instrument Development      CMS-07-001                      11/08/2006 –  
04/01/2008  
Barbara Gage (RTI International), Project Director  
Centers for Medicare and Medicaid Services,  
Office of Clinical Standards and Quality (OCSQ)  
Role: subcontract/co-investigator

Post Acute Care Reform Demonstration                      CMS-07-001                      02/19/2007 –  
12/31/2010  
Barbara Gage (RTI International), Project Director  
Centers for Medicare and Medicaid Services  
Office of Research, Development and Information (ORDI)  
Role: sub-contract PI