

## Curriculum Vitae

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Chih-Hung Chang

### **Contact Information**

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Program in Occupational Therapy  
Washington University School of Medicine  
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St. Louis, MO 63108-2122
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### **Present Position**

- 2018-Present      Professor, Occupational Therapy, Medicine, and Orthopaedic Surgery  
Washington University School of Medicine, St. Louis, MO
- 2019-Present      Visiting Professor, College of Public Health  
China Medical University, Taichung, Taiwan

### **Education**

#### **Undergraduate**

1983-1987      BS; National Chengchi University, Taipei, Taiwan, Republic of China

#### **Graduate**

1988-1995      PhD in Research Methodology and Quantitative Psychology, University of Chicago,  
Chicago, IL  
Chang C-H. (1996). Better Methods for Defining Psychological Variables:  
Reconstructing the MMPI-2 Clinical Scales. *Dissertation Abstracts International:  
Section B: The Sciences and Engineering*, 56(12-B), 7088.  
Advisor: Benjamin D. Wright, PhD

### **Academic Positions / Employment**

- 1995-1999      Assistant Professor  
Department of Psychology, Rush Medical College, Chicago, IL
- 1999-2002      Research Assistant Professor  
Institute for Health Services Research and Policy Studies, Northwestern University,  
Chicago, IL
- 2002-2006      Assistant Professor  
Division of General Internal Medicine, Department of Medicine  
Buehler Center on Aging, Northwestern University Feinberg School of Medicine,  
Chicago, IL

## **Curriculum Vitae**

- 2006-2012 Associate Professor  
Division of General Internal Medicine and Geriatrics, Department of Medicine  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2006-2015 Associate Professor  
Buehler Center on Aging, Health & Society – Institute of for Public Health and  
Medicine  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2010-2019 Adjunct Professor  
College of Public Health, China Medical University  
Taichung, Taiwan, Republic of China
- 2012-2015 Associate Professor  
Department of Physical Medicine and Rehabilitation  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2015-2018 Professor  
Department of Physical Medicine and Rehabilitation  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2016-2018 Professor  
Department of Physical Therapy and Human Movement Sciences  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2018-2020 Adjunct Professor  
Department of Physical Medicine and Rehabilitation  
Northwestern University Feinberg School of Medicine, Chicago, IL
- 2020-2021 Joint Appointed Research Fellow  
National Research Institute of Chinese Medicine, Ministry of Health and Welfare,  
Taipei, Taiwan, Republic of China

### **Teaching Title and Responsibilities**

- 2009 Course Director, Special Topics in Clinical Measurement (1 credit unit course)  
China Medical University, Taichung, Taiwan
- 2010 Course Director, Special Topics in Clinical Measurement (1 credit unit course)  
China Medical University, Taichung, Taiwan
- 2012 Course Instructor, Special Topics in Clinical Measurement (1 credit unit course)  
China Medical University, Taichung, Taiwan
- 2018-2020 Measurement Theory and Development (3 credit unit course; PhD-level)  
Course Director/Instructor  
Washington University School of Medicine, St. Louis, MO

### **University, School of Medicine, and Hospital Appointments and Committees**

- 1995-1999 Psychometrician, Division of Psychosocial Oncology

## Curriculum Vitae

- Rush Cancer Institute, Rush- Presbyterian-St. Luke's Medical Center
- 1999-2002 Director, Psychometrics and Informatics  
Center on Outcomes, Research and Education (CORE), Evanston Northwestern  
Healthcare (ENH) Research Institute
- 1999-2004 Academic Affiliate, Department of Psychiatry  
Evanston Hospital, Evanston Northwestern Healthcare
- 1999-2018 Full Member, Robert H. Lurie Comprehensive Cancer Center  
Northwestern University
- 2003-2012 Director, Methodology and Infometrics Section, Buehler Center on Aging, Health &  
Society – Institute of for Public Health and Medicine  
Northwestern University Feinberg School of Medicine
- 2003-2012 Chair, Methodology Seminar, Buehler Center on Aging, Health & Society  
Northwestern University Feinberg School of Medicine
- 2005-2012 Chair, Internal Scientific Review Committee on Aging Research  
Buehler Center on Aging, Health & Society  
Northwestern University Feinberg School of Medicine
- 2011-2018 Member, Grant Review Committee, ACS-Institutional Research Grant  
Robert H. Lurie Comprehensive Cancer Center of Northwestern University
- 2012-2018 Director, Clinical Outcomes and Infometrics  
Shirley Ryan AbilityLab (formerly Rehabilitation Institute of Chicago)
- 2012-2018 Member, Patient Grievance Committee  
Shirley Ryan AbilityLab (formerly Rehabilitation Institute of Chicago)
- 2013-2018 Member, Patient Experience Steering Committee  
Shirley Ryan AbilityLab (formerly Rehabilitation Institute of Chicago)
- 2016-2018 Member, Faculty Search Committee (Assistant/Associate Professor in  
Cardiopulmonary Physical Therapy)  
Department of Physical Therapy and Human Movement Sciences  
Northwestern University Feinberg School of Medicine
- 2019-Present Member  
Alvin J. Siteman Cancer Center  
Barnes-Jewish Hospital  
Washington University School of Medicine

### **Medical Licensure and Certification**

- 2003 Certificate, Summer Institute on Aging Research, National Institute on Aging (NIA),  
National Institutes of Health
- 2003 Certificate, Research Methods in Aging (NIA-sponsored Research Training

## Curriculum Vitae

- Program), College of St. Scholastica
- 2010 Certificate, Management Skills for Innovative University Leaders, Feinberg School of Medicine and Kellogg School of Management, Northwestern University
- 2015 Certificate, Leadership Development Program, Rehabilitation Institute of Chicago

### Honors and Awards

- 1988-1992 Century Scholarship, University of Chicago
- 1992-1993 Teaching Fellowship, University of Chicago
- 1994-1995 Teaching Fellowship, University of Chicago
- 2003 Sustained Service Award, Mid-America Chinese American Professional Association
- 2005 American Cancer Society Trish Greene Quality of Life Manuscript Award (co-author)
- 2007-2019 Visiting Scholar, China Medical University, Taichung, Taiwan
- 2009 Exceptional Reviewer, Medical Care, 2007-2008
- 2009-2012 Principal Investigator Eligible for Continuous Grant Submission (for temporary members with recent substantial review service), National Institutes of Health
- 2010 Certificate of Professor, Ministry of Education, Taiwan, Republic of China (No. 017519)
- 2010 Exceptional Reviewer, Medical Care, 2009
- 2011-2015 Member, Nursing and Related Clinical Sciences (NRCS) Study Section, Center for Scientific Review, National Institutes of Health
- 2012 Recognized Reviewer, Archives of Physical Medicine and Rehabilitation
- 2013 Henry B. Betts, MD, Innovation Award, Rehabilitation Institute of Chicago (“TEACH: Tailored Education to Advance Competencies in Healthcare”)
- 2013 Henry B. Betts, MD, Innovation Award, Rehabilitation Institute of Chicago (SCIENCE: Spinal Cord Injury Evaluation of Neurologic Changes Based on Eevidence”)
- 2013-Present Faculty Affiliate, Center for Health Statistics, University of Chicago
- 2014 Outstanding Reviewer, Archives of Physical Medicine and Rehabilitation
- 2017-Present Visiting Scholar, Taipei Medical University, Taipei, Taiwan
- 2018-2020 Principal Investigator Eligible for Continuous Grant Submission (for temporary members with recent substantial review service), National Institutes of Health

### Editorial Responsibilities

## Curriculum Vitae

### Editorial

2002-2006	Editorial Board Member, ISPOR CONNECTIONS
2002-2007	Editorial Board Member, Health and Quality of Life Outcomes
2007	Co-Editor, Quality of Life Research, Volume 16 Supplement 1“Applying Item Response Theory to Enhance Health Outcomes Assessment” (with Bryce B. Reeve, PhD, Guest, Editor, and Ron D. Hays, PhD, Co-Editor)
2006-2010	Associate Editor, Quality of Life Research
2007-2008	Associate Editor, Health and Quality of Life Outcomes
2007-2010	Editor-in-Chief, Clinical Medicine Insights: Geriatrics
2007-2012	Editorial Board Member, Clinical Medicine Insights: Oncology
2007-2019	Editorial Board Member, Medical Informatics Insights
2012-2019	Associate Editor, Applied Psychological Measurement
2012-2016	Associate Editor, BMC Palliative Care
2014-2016	Editorial Board Member / Section Editor, Archives of Physical Medicine and Rehabilitation
2018-2020	Associate Editor, Journal of Patient-Reported Outcomes
2021-Present	Co-Editor-in-Chief, Journal of Patient-Reported Outcomes
National Institutes of Health (NIH) Study Sections	
2011-2015	Nursing and Related Clinical Sciences (NRCS) Study Section (permanent member)
National Institutes of Health (NIH) NIH Study Sections	
2005-2006	Ad hoc Reviewer, NIH/CSR Biostatistical Methods and Research Design Study Section (2005.06; 2006.02; 2006.06)
2007-2009	Ad hoc Reviewer, NIH/NCI Small Grants for Behavioral Research in Cancer Control (R03)
2008	Ad hoc Reviewer, NIH SBIR Contracts (PHS2008-1)
2009	Ad hoc Reviewer, NIH Challenge Grants
2010	Ad hoc Reviewer, NIH/NINR Special Emphasis Panel (ZNR1 REV-T(01) End of Life RFA
2010-2011	Ad hoc Reviewer, NIH Nursing and Related Clinical Sciences (NRCS) Study Section (ad hoc reviewer)

## Curriculum Vitae

2015-2016	Ad hoc Reviewer, NIH/NRCS Special Emphasis Panel
2016-Present	Ad hoc Reviewer, NIH SBIR-STTR (Neuro/Psychopathology, Lifespan Development, and STEM)
2017-2019	Ad hoc Reviewer, NIH PAR Panel: Methodology and Measurement in the Behavioral and Social Sciences
2018-2019	Ad hoc Reviewer, NIH/NRCS Special Emphasis Panel
2019	Ad hoc Reviewer, NIH/CSR Special Emphasis Panel (ZRG1-BBBP-B-55)
2019	Ad hoc Reviewer, NIH/NCCIH The Helping to End Addiction Long-term (HEAL) Initiative (ZAT-JM-02)
2020	Ad hoc Reviewer, ACL/NIDILRR Field Initiated Projects Program (Research/Development) Grant Competition
2020	Ad hoc Reviewer, ACL/NIDILRR DRRP Health and Function review panel
2021	Ad hoc Reviewer, ACL/NIDILRR Field Initiated Projects Program (Research/Development) Grant Competition
Other Granting Agencies	
2005	Reviewer, Social Science and Humanities Research Council of Canada
2007	Reviewer, US Army Small Business Innovative Research (SBIR) Phase I grant proposals 2007 Canada Foundation for Innovation (CFI). CFI's 2007 competition for the Research Hospital Fund Large-Scale Institutional Endeavours Competition (RHF-LSIE)
2008	Reviewer, The 21st Century Fund, Indiana Economic Development Corporation, State of Indiana
2008-2020	Reviewer, The Research Grants Council (RGC) of Hong Kong
2009-2020	Reviewer, Italian Ministry of Health, Directorate for Health and Technologies Research
2010-2018	Reviewer, Bankhead-Coley Cancer Research Program, Florida Department of Health
2011	Reviewer, Marie Curie Cancer Care, Cancer Research UK
2011	Reviewer, Pennsylvania Department of Health, Pennsylvania Final Performance Review – 11-12 Cycle A
2012	Reviewer, Patient-Centered Outcomes Research Institute (PCORI) Pilot Grants
Institutional Grant Reviews	
2010-2018	Northwestern University/American Cancer Society Institutional Research Grant
2019	BJC-WUSM Big Ideas Competition 2019

## Curriculum Vitae

2019, 2020,  
2021 NIH Mock Study Section, Institute of Clinical and Translational Sciences (ICTS),  
Washington University School of Medicine

### Ad hoc Journal Reviewer

1996-present\_ Ad Hoc Reviewer  
Archives of Physical Medicine & Rehabilitation, Assessment, Archives of Internal  
Medicine, Applied Psychological Measurement, BMC Cancer Research, BMC Medical  
Research Methodology, The Breast, Cancer, Cultural Diversity and Ethnic Minority  
Psychology, Clinical Journal of Pain, Depression and Anxiety, Evidence-Based  
Complementary and Alternative Medicine, Evolutionary Bioinformatics, Health Education  
Research, Journal of the American Geriatrics Society, Journal of General Internal  
Medicine, Journal of Behavioral Health Services & Research, Journal of Clinical  
Epidemiology, Journal of Educational and Behavioral Statistics, The Journal of Supportive  
Oncology Medical Care (Exceptional Reviewer 2007, 2008, & 2009), Psycho-Oncology,  
PharmacoEconomics, Psychology of Men & Masculinity, Quality of Life Research, Sexual  
& Reproductive Healthcare Social Science & Medicine, Value in Health, Valuation & The  
Health Professions

### Scientific Conference Abstract Reviewer

2006 American Educational Research Association (AERA) Division D  
  
2007 International Society of Quality of Life Research Annual Meeting  
  
2008 American Cancer Society Biennial Cancer Survivorship Research Conference  
  
2009 American Educational Research Association (AERA) Division D In-Progress Research  
Gala  
  
2010, 2012 The 5<sup>th</sup> Biennial Cancer Survivorship Research Conference (Co-sponsored by the National  
Cancer Institute, the American Cancer Society, LIVESTRONG, and the Centers for  
Disease Control and Prevention)  
  
2012 ISPOR 5<sup>th</sup> Asia-Pacific Conference

### Fellowship/Scholarship Reviewer

2010-2011 Jeff Metcalf Fellows Program, University of Chicago  
  
2011-2014 Phi Tau Phi Scholastic Honor Society of America, Mid-America Chapter

### National Panels, Committees and Boards

2000 Member, Technical Program Committee, the 15th International Conference on Advanced  
Science and Technology (ICAST 2000), Argonne National Laboratory, Argonne, IL.  
  
2002-2011 Co-Chair, IRT/Psychometric Methods Special Interest Group, International Society for  
Quality of Life Research (ISOQOL)  
  
2004 Member, Technical Program Committee, The 19th International Conference on Advanced  
Science and Technology (ICAST 2004), University of Illinois at Chicago, Chicago, IL.

## Curriculum Vitae

- 2005 Member, Scientific Program Committee, "Advances in Health Outcomes Measurement: Exploring the Current State and the Future of Item Response Theory, Item Banks, and Computer-Adaptive Testing" Conference, Sponsored by the National Cancer Institute and the Drug Information Association, Bethesda, MD
- 2011-2014 Member, Scholarship Committee, Phi Tau Phi Scholastic Honor Society of America, Mid-America Chapter

### Community Service Contributions

#### **Professional Societies and Organizations**

- 1992-Present Member, American Statistical Association
- 1996-Present Member, Psychometric Society.
- 1996-Present Member, American Psychological Association.
- 1996-Present Member, National Council on Measurement in Education.
- 1996-Present Member, International Society for Quality of Life Research (ISOQOL).
- 2004-2012 Member, Gerontological Society of America.
- 2004-2012 Member, Mid-America Chinese American Professionals Association.
- 2010 - Present Member, International Association for Computerized Adaptive Testing (IACAT).
- 2011-2014 Member, Phi Tau Phi Scholastic Honor Society of America, Mid-America Chapter.
- 2014-2018 Member, American Congress of Rehabilitation Medicine.
- 2014-2018 Member, American Academy of Physical Medicine and Rehabilitation.
- 2018-Present Member, American Occupational Therapy Association (AOTA)
- 2018-Present Member, American Medical Informatics Association (AMIA)

#### **Major Invited Professorships and Lectureships**

- 2007-Present Visiting Scholar/Professor, China Medical University, Taichung, Taiwan
- 2010 Certificate of Professor, Ministry of Education, Taiwan, Republic of China (No. 017519)
- 2017-Present Visiting Scholar/Professor, Taipei Medical University, Taipei, Taiwan

#### **Research**

#### **Governmental**



## Curriculum Vitae

### Present

9/1/2018-  
6/30/2023      Role: Co-Investigator  
Validation of Online Methods to Predict and Monitor Cognitive Decline  
1RF1AG059009-01 (Wiener/Morris)  
NIH/NIA-UCSF  
\$5,616,204

9/30/2019-  
8/31/2020      Role: Co-Investigator  
IMPACT – Instrument to Measure Pain and Access Correlation to Treatment  
1R43DA046974-01 (Ma)  
NIH/NIDA  
\$338,947

### Pending

9/30/2020-  
9/29/2022      Role: Multiple Principal Investigator  
COVID\_19 symptom monitoring: improving adherence and patient outcomes (COVID-  
SMAP)  
1R01HS028203-01 (Yen, Chang, Chang)  
AHRQ

4/1/2021-  
3/31/2026      Role: Co-Investigator  
Essential Nurse Documentation: Studying EHR Burden during COVID-19 (END-Burden)  
1R01NR019780-01 (Rossetti, Yen)  
NIH/NINR

## **Trainee/Mentee/Sponsorship Record**

### **Current Trainees / Mentees:**

2019-2020      Alexis Park, Department of Computer Science & Engineering, McKelvey School of  
Engineering, Washington University in St. Louis

2019-2020      Anusha Mehta, Health Promotion and Health Equity B.S. Program, University of  
Wisconsin-Madison

2019-2021      Jui-Hsuan (Rosalind) Chou, Division of Biostatistics, Washington University School of  
Medicine in St. Louis

2020-2021      Kuangyin Yang, Division of Biostatistics, Washington University School of Medicine in  
St. Louis

2020-2021      Ai Zhang, Division of Biostatistics, Washington University School of Medicine in St.  
Louis

2020-2021      Fang-Yu Yeh, College for Public Health & Social Justice, St. Louis University

2020-2021      Yoona Shim, Department of Computer Science & Engineering, McKelvey School of  
Engineering, Washington University in St. Louis

2021-            Xiao Liang, MS, LD, RD, College for Public Health & Social Justice, St. Louis University

## Curriculum Vitae

### Patents

- 2018                    **Chang CH**, Bodine A, Sliwa JA. "Assessment and Management System for Rehabilitative Conditions and Related Methods," Filed September, 2018. U.S. Provisional Application No. 62/563,960. (2019 filed for international patents)

### Bibliography

#### Peer-Reviewed Manuscripts

1. Cella, D. F., Dineen, K., Arnason, B., Reder, A., Webster, K. A., karabatsos, G., **Chang, C. H.**, Lloyd, S., Steward, J., & Stefoski, D. (1996). Validation of the Functional Assessment of Multiple Sclerosis quality of life instrument. *Neurology*, 47(1), 129-139.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=8710066](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=8710066)
2. **Chang, C. H.** (1996). Finding two dimensions in MMPI-2 depression. *Structural equation modeling: a multidisciplinary journal*, 3(1), 41-49. <https://doi.org/10.1080/10705519609540028>
3. Gehlert, S., **Chang, C. H.**, & Hartlage, S. (1997). Establishing the diagnostic validity of premenstrual dysphoric disorder using rasch analysis. *J Outcome Meas*, 1(1), 2-18.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=9661712](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=9661712)
4. **Chang, C. H.**, & Cella, D. (1997). Equating health-related quality of life instruments in applied oncology settings. *Phys Med Rehab: State of the Art Reviews*, 11, 397-406.
5. Gehlert, S., & **Chang, C. H.** (1998). Factor structure and dimensionality of the multidimensional health locus of control scales in measuring adults with epilepsy. *J Outcome Meas*, 2(3), 173-190.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=9711020](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=9711020)
6. Gehlert, S., **Chang, C. H.**, & Hartlage, S. (1999). Symptom patterns of premenstrual dysphoric disorder as defined in the Diagnostic and Statistical Manual of Mental Disorders-IV. *J Womens Health*, 8(1), 75-85.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=10094084](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10094084)
7. Mullin, V., Cella, D., **Chang, C. H.**, Eremenco, S., Mertz, M., Lent, L., Falkson, C., & Falkson, G. (2000). Development of three African language translations of the FACT-G. *Qual Life Res*, 9(2), 139-149.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=10983478](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10983478)
8. Hernandez, L., **Chang, C. H.**, Cella, D., Corona, M., Shiimoto, G., & McGuire, D. B. (2000). Development and validation of the satisfaction with pharmacist scale. *Pharmacotherapy*, 20(7), 837-843.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=10907974](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10907974)

## Curriculum Vitae

9. Cella, D., & **Chang, C. H.** (2000). A discussion of item response theory and its applications in health status assessment. *Med Care*, 38(9 Suppl), II66-72.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=10982091](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10982091)
10. Leonelli, B. T., **Chang, C. H.**, Bock, R. D., & Schilling, S. G. (2000). Interpretation of a full-information item-level factor analysis of the MMPI-2: Normative sampling and nonpathognomonic descriptors. *J Pers Assess*, 74(3), 400-422. <Go to ISI>://000087853700004
11. **Chang, C. H.**, & Wright, B. D. (2001). Detecting unexpected variables in the MMPI-2 Social Introversion scale. *J Appl Meas*, 2(3), 227-240.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12011508](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12011508)
12. Collins, M. M., O'Leary, M. P., Calhoun, E. A., Pontari, M. A., Adler, A., Eremenco, S., **Chang, C. H.**, Odom, L., & Litwin, M. S. (2001). The Spanish National Institutes of Health-Chronic Prostatitis Symptom Index: translation and linguistic validation. *J Urol*, 166(5), 1800-1803.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=11586227](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11586227)
13. Calhoun, E. A., **Chang, C. H.**, Welshman, E. E., Fishman, D. A., Lurain, J. R., & Bennett, C. L. (2001). Evaluating the total costs of chemotherapy-induced toxicity: results from a pilot study with ovarian cancer patients. *Oncologist*, 6(5), 441-445.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=11675522](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11675522)
14. Fumimoto, H., Kobayashi, K., **Chang, C. H.**, Eremenco, S., Fujiki, Y., Uemura, S., Ohashi, Y., & Kudoh, S. (2001). Cross-cultural validation of an international questionnaire, the General Measure of the Functional Assessment of Cancer Therapy scale (FACT-G), for Japanese. *Qual Life Res*, 10(8), 701-709.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=11871591](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11871591)
15. Cella, D., Lai, J. S., **Chang, C. H.**, Peterman, A., & Slavin, M. (2002). Fatigue in cancer patients compared with fatigue in the general United States population. *Cancer*, 94(2), 528-538.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=11900238](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11900238)
16. Lau, A. K., **Chang, C. H.**, Tai, J. W., Eremenco, S., Liang, R., Lie, A. K., Fong, D. Y., & Lau, C. M. (2002). Translation and validation of the Functional Assessment of Cancer Therapy-Bone Marrow Transplant (FACT-BMT) Version 4 quality of life instrument into traditional Chinese. *Bone Marrow Transplant*, 29(1), 41-49.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=11840143](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=11840143)
17. Cella, D., **Chang, C. H.**, Lai, J. S., & Webster, K. (2002). Advances in quality of life measurements in oncology patients. *Semin Oncol*, 29(3 Suppl 8), 60-68.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12082656](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12082656)
18. Yount, S., Cella, D., Webster, K., Heffernan, N., **Chang, C.H.**, Odom, L., & van Gool, R. (2002).

## Curriculum Vitae

- Assessment of patient-reported clinical outcome in pancreatic and other hepatobiliary cancers: the FACT Hepatobiliary Symptom Index. *J Pain Symptom Manage*, 24(1), 32-44.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12183093](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12183093)
19. **Chang, C. H.**, Cella, D., Masters, G. A., Laliberte, N., O'Brien, P., Peterman, A., & Shervin, D. (2002). Real-time clinical application of quality-of-life assessment in advanced lung cancer. *Clin Lung Cancer*, 4(2), 104-109.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=14653866](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=14653866)
  20. Cella, D., Hughes, C., Peterman, A., **Chang, C. H.**, Peshkin, B. N., Schwartz, M. D., Wenzel, L., Lemke, A., Marcus, A. C., & Lerman, C. (2002). A brief assessment of concerns associated with genetic testing for cancer: the Multidimensional Impact of Cancer Risk Assessment (MICRA) questionnaire. *Health Psychol*, 21(6), 564-572.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12433008](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12433008)
  21. **Chang, C. H.**, Cella, D., Fernandez, O., Luque, G., de Castro, P., de Andres, C., Casanova, B., Hernandez, M. A., Prieto, J. M., Fernandez, V. E., & de Ramon, E. (2002). Quality of life in multiple sclerosis patients in Spain. *Mult Scler*, 8(6), 527-531.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12474996](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12474996)
  22. **Chang, C. H.**, Nyenhuis, D. L., Cella, D., Luchetta, T., Dineen, K., & Reder, A. T. (2003). Psychometric evaluation of the Chicago Multiscale Depression Inventory in multiple sclerosis patients. *Mult Scler*, 9(2), 160-170.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12708812](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12708812)
  23. **Chang, C. H.**, & Gehlert, S. (2003). The Washington Psychosocial Seizure Inventory (WPSI): psychometric evaluation and future applications. *Seizure*, 12(5), 261-267.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12810338](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12810338)
  24. Lai, J. S., Cella, D., **Chang, C. H.**, Bode, R. K., & Heinemann, A. W. (2003). 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. *Qual Life Res*, 12(5), 485-501.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=13677494](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=13677494)
  25. Cella, D., Paul, D., Yount, S., Winn, R., **Chang, C. H.**, Banik, D., & Weeks, J. (2003). What are the most important symptom targets when treating advanced cancer? A survey of providers in the National Comprehensive Cancer Network (NCCN). *Cancer Invest*, 21(4), 526-535.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=14533442](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=14533442)
  26. Dapuelto, J. J., Francolino, C., Servente, L., **Chang, C. H.**, Gotta, I., Levin, R., & Abreu, M. D. (2003). Evaluation of the Functional Assessment of Cancer Therapy-General (FACT-G) Spanish Version 4 in South America: Classic Psychometric and Item Response Theory Analyses. *Health Qual Life Outcomes*, 1(1), 32.

## Curriculum Vitae

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=12969512](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12969512)

27. Calhoun, E. A., Welshman, E. E., **Chang, C. H.**, Lurain, J. R., Fishman, D. A., Hunt, T. L., & Cella, D. (2003). Psychometric evaluation of the Functional Assessment of Cancer Therapy/Gynecologic Oncology Group-Neurotoxicity (Fact/GOG-Ntx) questionnaire for patients receiving systemic chemotherapy. *Int J Gynecol Cancer*, *13*(6), 741-748.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=14675309](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=14675309)
28. **Chang, C. H.**, Cella, D., Clarke, S., Heinemann, A. W., Von Roenn, J. H., & Harvey, R. (2003). Should symptoms be scaled for intensity, frequency, or both? *Palliat Support Care*, *1*(1), 51-60.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16594288](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16594288)
29. Hahn, E. A., Cella, D., Dobrez, D., Shiimoto, G., Marcus, E., Taylor, S. G., Vohra, M., **Chang, C. H.**, Wright, B. D., Linacre, J. M., Weiss, B. D., Valenzuela, V., Chiang, H. L., & Webster, K. (2004). The talking touchscreen: a new approach to outcomes assessment in low literacy. *Psychooncology*, *13*(2), 86-95.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=14872527](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=14872527)
30. Boni-Saenz, A. A., **Chang, C. H.**, Reginald, A., Kacker, R., & Emanuel, L. L. (2004). Just Measures: A methodology for assessing the global value added of corporate activities. *Organizational Ethics: Healthcare, Business, and Policy*, *1*(2), 81-94.
31. Cella, D., **Chang, C. H.**, Wright, B. D., Von Roenn, J. H., & Skeel, R. T. (2005). Defining higher order dimensions of self-reported health: further evidence for a two-dimensional structure. *Eval Health Prof*, *28*(2), 122-141.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=15851769](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=15851769)
32. Wolf, M. S., **Chang, C. H.**, Davis, T., & Makoul, G. (2005). Development and validation of the Communication and Attitudinal Self-Efficacy scale for cancer (CASE-cancer). *Patient Educ Couns*, *57*(3), 333-341.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=15893217](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=15893217)
33. Arseven, A., **Chang, C. H.**, Arseven, O. K., & Emanuel, L. L. (2005). Assessment instruments. *Clin Geriatr Med*, *21*(1), 121-146, ix.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=15639041](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=15639041)
34. McCarthy, M., Jr., Jonasson, O., **Chang, C. H.**, Pickard, A. S., Giobbie-Hurder, A., Gibbs, J., Edelman, P., Fitzgibbons, R., & Neumayer, L. (2005). Assessment of patient functional status after surgery. *J Am Coll Surg*, *201*(2), 171-178.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16038812](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16038812)
35. McCarthy, M., Jr., **Chang, C. H.**, Pickard, A. S., Giobbie-Hurder, A., Price, D. D., Jonasson, O., Gibbs, J., Fitzgibbons, R., & Neumayer, L. (2005). Visual analog scales for assessing surgical pain. *J*

## Curriculum Vitae

*Am Coll Surg*, 201(2), 245-252.

[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16038823](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16038823)

36. **Chang, C. H.**, & Reeve, B. B. (2005). Item response theory and its applications to patient-reported outcomes measurement. *Eval Health Prof*, 28(3), 264-282.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16123257](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16123257)
37. Edelman, P., Fulton, B. R., Kuhn, D., & **Chang, C. H.** (2005). A Comparison of Three Methods of Measuring Dementia-Specific Quality of Life: Perspectives of Residents, Staff, and Observers. *Gerontologist*, 45(suppl\_1), 27-36.  
[http://gerontologist.gerontologyjournals.org/cgi/content/abstract/45/suppl\\_1/27](http://gerontologist.gerontologyjournals.org/cgi/content/abstract/45/suppl_1/27)
38. Hauser, J. M., **Chang, C. H.**, Alpert, H., Baldwin, D., Emanuel, E. J., & Emanuel, L. (2006). Who's caring for whom? Differing perspectives between seriously ill patients and their family caregivers. *Am J Hosp Palliat Care*, 23(2), 105-112.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16572748](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16572748)
39. Gehlert, S., **Chang, C. H.**, Bock, R. D., & Hartlage, S. A. (2006). The WOMQOL instrument measured quality of life in women of reproductive age with no known pathology. *J Clin Epidemiol*, 59(5), 525-533.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16632142](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16632142)
40. Nordyke, R. J., **Chang, C. H.**, Chiou, C. F., Wallace, J. F., Yao, B., & Schwartzberg, L. S. (2006). Validation of a patient satisfaction questionnaire for anemia treatment, the PSQ-An. *Health Qual Life Outcomes*, 4, 28.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16672069](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16672069)
41. Darnell, J. S., **Chang, C. H.**, & Calhoun, E. A. (2006). Knowledge about breast cancer and participation in a faith-based breast cancer program and other predictors of mammography screening among African American women and Latinas. *Health Promot Pract*, 7(3 Suppl), 201S-212S.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16760248](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16760248)
42. Chiou, C. F., Sherbourne, C. D., Cornelio, I., Lubeck, D. P., Paulus, H. E., Dylan, M., **Chang, C. H.**, & Weisman, M. H. (2006). Development and validation of the revised Cedars-Sinai health-related quality of life for rheumatoid arthritis instrument. *Arthritis Rheum*, 55(6), 856-863.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17139661](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17139661)
43. Chiou, C. F., Suarez-Almazor, M. E., Sherbourne, C. D., **Chang, C. H.**, Reyes, C., Dylan, M., Ofman, J., Wallace, D. J., Mizutani, W., & Weisman, M. (2006). Development and validation of a preference weight multiattribute health outcome measure for rheumatoid arthritis. *J Rheumatol*, 33(12), 2409-2411.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17080516](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17080516)

## Curriculum Vitae

44. **Chang, C. H.**, Wright, B. D., Cella, D., & Hays, R. D. (2007). The SF-36 physical and mental health factors were confirmed in cancer and HIV/AIDS patients. *J Clin Epidemiol*, 60(1), 68-72.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17161756](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17161756)
45. Perry, S., Kowalski, T. L., & **Chang, C. H.** (2007). Quality of life assessment in women with breast cancer: Benefits, acceptability and utilization. *Health Qual Life Outcomes*, 5(1), 24.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17474993](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17474993)
46. Sharp, L. K., Kimmel, L. G., Kee, R., Saltoun, C., & **Chang, C. H.** (2007). Assessing the Perceived Stress Scale for African American Adults with Asthma and Low Literacy. *J Asthma*, 44(4), 311-316.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17530531](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17530531)
47. **Chang, C. H.**, Boni-Saenz, A. A., Durazo-Arvizu, R. A., Desharnais, S., Lau, D. T., & Emanuel, L. L. (2007). A System for Interactive Assessment and Management in Palliative Care. *J Pain Symptom Manage*, 33(6), 745-755.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17360148](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17360148)
48. **Chang, C. H.**, Sharp, L. K., Kimmel, L. G., Grammer, L. C., Kee, R., & Shannon, J. J. (2007). A 6-item brief measure for assessing perceived control of asthma in culturally diverse patients. *Ann Allergy Asthma Immunol*, 99(2), 130-135.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17718100](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17718100)
49. Makoul, G., Krupat, E., & **Chang, C. H.** (2007). Measuring patient views of physician communication skills: development and testing of the Communication Assessment Tool. *Patient Educ Couns*, 67(3), 333-342.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17574367](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17574367)
50. **Chang, C. H.** (2007). Patient-reported outcomes measurement and management with innovative methodologies and technologies. *Qual Life Res*, 16 Suppl 1, 157-166.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17530448](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17530448)
51. Bjorner, J. B., **Chang, C. H.**, Thissen, D., & Reeve, B. B. (2007). Developing tailored instruments: item banking and computerized adaptive assessment. *Qual Life Res*, 16 Suppl 1, 95-108.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17530450](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17530450)
52. Cook, K. F., Teal, C. R., Bjorner, J. B., Cella, D., **Chang, C. H.**, Crane, P. K., Gibbons, L. E., Hays, R. D., McHorney, C. A., Ocepek-Welikson, K., Raczek, A. E., Teresi, J. A., & Reeve, B. B. (2007). IRT health outcomes data analysis project: an overview and summary. *Qual Life Res*, 16 Suppl 1, 121-132.  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17351824](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17351824)
53. Thissen, D., Reeve, B. B., Bjorner, J. B., & **Chang, C. H.** (2007). Methodological issues for building

## Curriculum Vitae

- item banks and computerized adaptive scales. *Qual Life Res*, 16 Suppl 1, 109-119. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=17294284](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17294284)
54. Saitoh, E., Yokomizo, Y., **Chang, C. H.**, Eremenco, S., Kaneko, H., & Kobayashi, K. (2007). Cross-cultural Validation of the Japanese Version of the Lung Cancer Subscale on the Functional Assessment of Cancer Therapy-Lung. *J Nippon Med Sch*, 74(6), 402-408. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=18084133](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=18084133)
55. **Chang, C. H.**, Gonzalez, C. M., Lau, D. T., & Sier, H. C. (2008). Urinary incontinence and self-reported health among the U.S. Medicare managed care beneficiaries. *J Aging Health*, 20(4), 405-419. <https://doi.org/0898264308315853> [pii]10.1177/0898264308315853
56. Cella, D., Land, S. R., **Chang, C. H.**, Day, R., Costantino, J. P., Wolmark, N., & Ganz, P. A. (2008). Symptom measurement in the Breast Cancer Prevention Trial (BCPT) (P-1): psychometric properties of a new measure of symptoms for midlife women. *Breast Cancer Res Treat*, 109(3), 515-526. <https://doi.org/10.1007/s10549-007-9682-9>
57. Liang, W. M., Chen, J. J., **Chang, C. H.**, Chen, H. W., Chen, S. L., Hang, L. W., & Wang, J. D. (2008). An empirical comparison of the WHOQOL-BREF and the SGRQ among patients with COPD. *Qual Life Res*, 17(5), 793-800. <https://doi.org/10.1007/s11136-008-9326-5>
58. Chang, J. T., **Chang, C. H.**, Juang, Y. Y., Hsiao, J. C., Lin, C. Y., Huang, S. F., Huang, Y. C., Kuan, K. H., Liao, C. T., Wang, H. M., & Chen, I. H. (2008). Internal consistency of the traditional Chinese character version of the Functional Assessment of Cancer Therapy-Head and Neck (FACT-H&N). *Chang Gung Med J*, 31(4), 384-394. [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=18935797](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=18935797)
59. Gehlert, S., Song, I. H., **Chang, C. H.**, & Hartlage, S. A. (2009). The prevalence of premenstrual dysphoric disorder in a randomly selected group of urban and rural women. *Psychol Med*, 39(1), 129-136. <https://doi.org/S003329170800322X> [pii]10.1017/S003329170800322X
60. Lau, D. T., Kasper, J. D., Hauser, J. M., Berdes, C., **Chang, C. H.**, Berman, R. L., Masin-Peters, J., Paice, J., & Emanuel, L. (2009). Family caregiver skills in medication management for hospice patients: a qualitative study to define a construct. *J Gerontol B Psychol Sci Soc Sci*, 64(6), 799-807. <https://doi.org/gbp033> [pii]10.1093/geronb/gbp033
61. Liang, W. M., **Chang, C. H.**, Yeh, Y. C., Shy, H. Y., Chen, H. W., & Lin, M. R. (2009). Psychometric evaluation of the WHOQOL-BREF in community-dwelling older people in Taiwan using Rasch analysis. *Qual Life Res*, 18(5), 605-618. <https://doi.org/10.1007/s11136-009-9471-5>
62. Pickard, A. S., Lin, H. W., Knight, S. J., Sharifi, R., Wu, Z., Hung, S. Y., Witt, W. P., **Chang, C. H.**, & Bennett, C. L. (2009). Proxy assessment of health-related quality of life in african american and white respondents with prostate cancer: perspective matters. *Med Care*, 47(2), 176-183. <https://doi.org/10.1097/MLR.0b013e31818475f400005650-200902000-00007> [pii]
63. Chen, L. L., Lin, J. S., Lin, J. D., **Chang, C. H.**, Kuo, H. W., Liang, W. M., & Su, Y. C. (2009). BCQ+: a body constitution questionnaire to assess Yang-Xu. Part II: Evaluation of reliability and validity. *Forsch Komplementmed*, 16(1), 20-27. <https://doi.org/10.1159/000197770>



## Curriculum Vitae

64. Gehlert, S., **Chang, C. H.**, & Song, I. H. (2010). The clinical utility of premenstrual dysphoric disorder: Offspring or orphan of the premenstrual syndrome. *Irish Psychiatrist*, *11*(1), 12-15.
65. Robinson, J. K., Lio, P., Hernandez, C., Kim, N. N., Lee, K. C., Wickless, H., McGaghie, W., & **Chang, C. H.** (2010). Medical student detection of melanoma: clinical skills [Letter Research Support, N.I.H., Extramural Research Support, Non-U.S. Gov't]. *Arch Dermatol*, *146*(10), 1175-1177. <https://doi.org/10.1001/archdermatol.2010.255>
66. Scandrett, K. G., Reitschuler-Cross, E. B., Nelson, L., Sanger, J. A., Feigon, M., Boyd, E., **Chang, C. H.**, Paice, J. A., Hauser, J. M., Chamkin, A., Balfour, P., Stolbunov, A., Bennett, C. L., & Emanuel, L. L. (2010). Feasibility and Effectiveness of the NEST13+ as a Screening Tool for Advanced Illness Care Needs. *J Palliat Med*, *13*(2), 161-169. <https://doi.org/10.1089/jpm.2009.0170>
67. Gehlert, S., **Chang, C. H.**, & Song, I. H. (2010). The clinical utility of premenstrual dysphoric disorder: Offspring or orphan of the premenstrual syndrome? *Irish Psychiatrist*, *11*, 12-15.
68. Lin, H. C., Wu, H. C., **Chang, C. H.**, Li, T. C., Liang, W. M., & Wang, J. Y. (2011). Development of a real-time clinical decision support system upon the Web MVC-based architecture for prostate cancer treatment. *BMC Med Inform Decis Mak*, *11*, 16. <https://doi.org/10.1186/1472-6947-11-16>
69. Richards, C. T., Gisondi, M. A., **Chang, C. H.**, Courtney, D. M., Engel, K. G., Emanuel, L., & Quest, T. (2011). Palliative care symptom assessment for patients with cancer in the emergency department: validation of the Screen for Palliative and End-of-life care needs in the Emergency Department instrument. *J Palliat Med*, *14*(6), 757-764. <https://doi.org/10.1089/jpm.2010.0456>
70. Lin, J.-D., Lin, J.-S., Chen, L.-L., **Chang, C. H.**, Huang, Y.-C., & Su, Y.-C. (2012). BCQs: A Body Constitution Questionnaire to assess Stasis in traditional Chinese medicine. *European journal of integrative medicine*, *4*(4), e379-e391. <https://doi.org/10.1016/j.eujim.2012.05.001>
71. Lin, H. C., Wu, H. C., **Chang, C. H.**, Li, T. C., Liang, W. M., & Wang, J. Y. (2012). A real time online assessment system with modeled architecture on clinical infometrics for patient reported outcomes of prostate cancer. *Comput Methods Programs Biomed*, *106*(3), 249-259. <https://doi.org/10.1016/j.cmpb.2010.10.003>
72. Chang, Y. J., Liang, W. M., Wu, H. C., Lin, H. C., Wang, J. Y., Li, T. C., Yeh, Y. C., & **Chang, C. H.** (2012). Psychometric evaluation of the Taiwan Chinese version of the EORTC QLQ-PR25 for HRQOL assessment in prostate cancer patients. *Health Qual Life Outcomes*, *10*, 96. <https://doi.org/10.1186/1477-7525-10-96>
73. Chien, T. W., Lin, Y. F., **Chang, C. H.**, Tsai, M. T., & Uen, Y. H. (2012). Using a bubble chart to enhance adherence to quality-of-care guidelines for colorectal cancer patients. *Eur J Cancer Care (Engl)*, *21*(6), 712-721. <https://doi.org/10.1111/j.1365-2354.2012.01334.x>
74. Lin, J. D., Chen, L. L., Lin, J. S., **Chang, C. H.**, Huang, Y. C., & Su, Y. C. (2012). BCQ-: a body constitution questionnaire to assess Yin-Xu. Part I: establishment of a provisional version through a Delphi process. *Forsch Komplementmed*, *19*(5), 234-241. <https://doi.org/10.1159/000343580>
75. Lin, J. S., Chen, L. L., Lin, J. D., **Chang, C. H.**, Huang, C. H., Mayer, P. K., & Su, Y. C. (2012). BCQ-: A Body Constitution Questionnaire to assess Yin-Xu. Part II: evaluation of reliability and validity. *Forsch Komplementmed*, *19*(6), 285-292. <https://doi.org/10.1159/000346060>

## Curriculum Vitae

76. Zheng, Y., **Chang, C. H.**, & Chang, H. H. (2013). Content-balancing strategy in bifactor computerized adaptive patient-reported outcome measurement. *Qual Life Res*, 22(3), 491-499. <https://doi.org/10.1007/s11136-012-0179-6>
77. Lai, W. P., Chien, T. W., Lin, H. J., Su, S. B., & **Chang, C. H.** (2013). A screening tool for dengue fever in children. *Pediatr Infect Dis J*, 32(4), 320-324. <https://doi.org/10.1097/INF.0b013e31827e111e>
78. Lin, S. J., Cheng, Y. Y., **Chang, C. H.**, Lee, C. H., Huang, Y. C., & Su, Y. C. (2013). Traditional chinese medicine diagnosis "yang-xu zheng": significant prognostic predictor for patients with severe sepsis and septic shock. *Evid Based Complement Alternat Med*, 2013, 759748. <https://doi.org/10.1155/2013/759748>
79. Chang, Y. J., **Chang, C. H.**, Peng, C. L., Wu, H. C., Lin, H. C., Wang, J. Y., Li, T. C., Yeh, Y. C., & Liang, W. M. (2014). Measurement equivalence and feasibility of the EORTC QLQ-PR25: paper-and-pencil versus touch-screen administration. *Health Qual Life Outcomes*, 12, 23. <https://doi.org/10.1186/1477-7525-12-23>
80. Cheng, Y. Y., Lin, S. J., **Chang, C. H.**, Lin, C. J., Tsai, C. C., & Su, Y. C. (2014). Cool extremities, a diagnostic sign recorded in Shang Han Lun, still good prognosis index for septic patients in today's medical intensive care unit. *Chin J Integr Med*. <https://doi.org/10.1007/s11655-014-1840-4>
81. Lo, C., Liang, W. M., Hang, L. W., Wu, T. C., Chang, Y. J., & **Chang, C. H.** (2015). A psychometric assessment of the St. George's respiratory questionnaire in patients with COPD using Rasch model analysis. *Health Qual Life Outcomes*, 13, 131. <https://doi.org/10.1186/s12955-015-0320-7>
82. Chiang, P. J., Li, T. C., **Chang, C. H.**, Chen, L. L., Lin, J. D., & Su, Y. C. (2015). SEED: the six excesses (Liu Yin) evaluation and diagnosis scale. *Chin Med*, 10, 30. <https://doi.org/10.1186/s13020-015-0059-4>
83. Gordon, E. J., Sohn, M. W., **Chang, C. H.**, McNatt, G., Vera, K., Beauvais, N., Warren, E., Mannon, R. B., & Ison, M. G. (2017). Effect of a Mobile Web App on Kidney Transplant Candidates' Knowledge About Increased Risk Donor Kidneys: A Randomized Controlled Trial. *Transplantation*, 101(6), 1167-1176. <https://doi.org/10.1097/TP.0000000000001273>
84. Chen, C. Y., Hsieh, V. C., **Chang, C. H.**, Chen, P. R., Liang, W. M., Pan, S. C., & Shieh, S. H. (2017). Impacts of treatments on the quality of life among esophageal squamous cell carcinoma patients. *Dis Esophagus*, 30(10), 1-8. <https://doi.org/10.1093/dote/dox061>
85. Gagnon, C. M., Brewington, D. V., Scholten, P. M., Atchison, J., & **Chang, C. H.** (2019). Impact of Symptom Reporting Agreement on Interdisciplinary Pain Program Participation. *Pain Pract*, 19(6), 621-632. <https://doi.org/10.1111/papr.12783>
86. Chun, I., Taff, S. D., Mehta, A., **Chang, C. H.**\* (2020). Identifying Essential Competency Areas for Occupational Therapy Education: A Scoping Review. *Journal of Occupational Therapy Education*, 4(4). <https://doi.org/10.26681/jote.2020.040402>
87. L'Hotta A. J., Hoyt, C. R., Lindsey, T., Abel, R. A., **Chang, C. H.**\*, King, A. A. (2020). Validation of the fine motor subset of the Bayley-III with children with sickle cell disease using Rasch analysis. *Child Care Health Dev*, 46(5), 576-584. <https://doi.org/10.1111/cch.12795>.

## Curriculum Vitae

88. Lin, C. R., Fan, K. H., Lin, C. Y., Hung, T. M., Huang, B. S., Chen, E. Y. C., Kang, C. J., Huang, S. F., Chang, J. T. C., **Chang, C. H.**\* (2020). Development and evaluation of a computerized clinical outcomes assessment tool for head and neck cancer patients. *Medicine*, 99:34. <http://dx.doi.org/10.1097/MD.00000000000020304>
89. Hoyt, C. R., L'Hotta, A. J., Bauer, A. H., Chang, C. H., Varughese, T. E., Abel, R. A., King, A. A. (2021). Activity competence among infants and toddlers with developmental disabilities: Rasch analysis of the Infant Toddler Activity Card Sort (ITACS). *J Patient Rep Outcomes*, 5:14. <https://doi.org/10.1186/s41687-021-00287-0>
90. Li, Y., Xiong, C., Aschenbrenner A. J., **Chang, C. H.** Weiner, M. W., Nosheny, R. L., Mungass, D., Bateman, R. J., Hassenstab, J., Moulder K. L., Morris, J. C. (2021). Item response theory analysis of the Clinical Dementia Rating. *Alzheimers Dement*, 17(3), 534-542. <https://doi.org/10.1002/alz.12210>

### Editorials, Newsletters, Proceedings, and Online Publications

1. **Chang C.H.** (2002). *Item response theory: Models and applications* (CORE Psychometric Research Report No. 1). Evanston, IL: Center on Outcomes, Research and Education, Evanston Northwestern Healthcare.
2. Touchette, D., Glasgow, R.E., Fitzner, K., Boren, S., Price, M.J., Grinslade, S., **Chang C.H.**, Chima, M., Sherr, D. Addressing the need for an instrument to measure behavior change instrument in diabetes self-management education, Chicago, IL: American Diabetes Education Association.
3. **Chang C.H.** (1994). Which way is up? Keying the MMPI-2. *Rasch Measurement Transactions*, 8(1), 339
4. **Chang C.H.** (1998). Confirming test structure and measurement characteristics. *Rasch Measurement Transaction*, 12(1), 622-623.
5. Cella, D., Hahn, E., Peterman, A., **Chang, C.H.**, Yount, S. (2000). Cancer control research at the Center on Outcomes, Research and Education. *The Journal of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University*, 7(2), 29-34
6. **Chang, C.H.**, Cella, D. (2000). Quality of life informatics. *Proceedings of the 16<sup>th</sup> International Conference on Advanced Science and Technology*, 29-36.
7. **Chang, C.H.**, Eremenco, S., Cella, D. (2000). International adaptation of the Functional Assessment of Chronic Illness Therapy (FACIT) quality of life questionnaires. *Proceedings of the 16<sup>th</sup> International Conference on Advanced Science and Technology*, 18-25.
8. Yang, D., **Chang, C.H.** (2002). Web services in healthcare. *Proceedings of the 18<sup>th</sup> International Conference on Advanced Science and Technology (ICAST 2002)*, 29-36.
9. **Chang, C.H.** (2002, August 15). Item response theory and its applications to patient-reported outcomes measurement. *ISPOR CONNECTIONS*, 8(4), 9-12.
10. Yang, D., **Chang, C.H.** (2002, September 2). Architecting for HIPAA compliance with J2EE and web services. *ebizQ*. [http://e-serv.ebizq.net/wbs/yang\\_1a.html](http://e-serv.ebizq.net/wbs/yang_1a.html)

## Curriculum Vitae

11. Yang, D., Peckham, D., **Chang, C.H.** (2002, September). A marriage of two forces: HIPAA meets web services. *Advance for Health Information Executives: HIPAA HQ*.  
<http://www.advanceforhie.com/common/editorial/editorial.aspx?CC=1329>
12. Yang, D., **Chang, C.H.** (2002, Fall). Web services & security: A better approach to HIPAA compliance. *SecureFrontier.net*.  
<http://www.technologyreports.net/securefrontiers/index.html?articleID=534>
13. **Chang, C.H.**, Yang, D. (2003, April 15). Patient-Reported Outcomes Information Technology: The PROsIT™ System. *ISPOR CONNECTIONS*, 9(2), 5-6.
14. **Chang, C.H.** (2003). Psychometrics critical for aging research. *The Buehler Center on Aging Newsletter*, 18(2):1, 3, 7. (Editorial)
15. Reeve, B.B., Hays, R.D., **Chang, C.H.**, Peretto, E.M. Applying item response theory to enhance health outcomes assessment. *Qual Life Res* 2007; 16(suppl 1):1-3.
16. Hauser JM, **Chang C.H.** (2009). Understanding and designing coordinated cancer care. *The Buehler Center on Aging, Health & Society Newsletter*, 22(3):1, 11. (Editorial)
17. Yang, D., **Chang, C.H.** (in press). HIPAA transaction standards: A step backward? How to take advantages of the latest e-technologies while being HIPAA-compliant. (*Healthcare Informatics*)
18. Chen, J.F., Wu, L.L., Chou, S.C., **Chang, C.H.** (2014, June). Online social support for weight control and improved quality of life. *Proceedings of the 18<sup>th</sup> Pacific Asia Conference on Information Systems (PACIS 2014)*, June 24-28, 2014, Chengdu, China.

### Book Chapters

1. Eremenco, S., **Chang, C.H.**, Webster, K., Cella, D. (2000). Quality of life evaluation in chronic illness across cultures: The Functional Assessment of Chronic Illness Therapy (FACIT) Measurement System and its use in India. In SK Chaturvedi & PS Chandra (Eds.), *Quality of Life in Health & Disease* (pp. 69-81). Bangalore, India: Malalur Printers.
2. Cella, D., **Chang, C.H.**, Heinemann, A.W. (2002). 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, Measurements, and Analysis* (pp. 169-185). Dordrecht, The Netherlands: Kluwer Academic Publishers.
3. **Chang, C.H.**, Cella, D., Wright, B.D. (2005). Measurement consistency for different language versions of health-related quality of life instruments. In N Bezruczko (Ed.), *Rasch Measurement in Health Sciences* (pp. 152-160). Maple Grove, MN: JAM Press.
4. **Chang, C.H.** (2005). Item response theory and beyond: Patient-reported outcomes computerized adaptive testing. In W Lenderking & D Revicki (Eds.), *Advances in Health Outcomes Research Methods, Measurement, Statistical Analysis, and Clinical Applications* (pp. 37-55). McLean, VA: Degnon Associates.
5. **Chang, C.H.** (2009). Multidimensional pain assessment in geriatric oncology: An innovative

## Curriculum Vitae

approach. In R R Brougham (Ed.), *New Directions in Aging Research: Health and Cognition* (pp. 75-90). Hauppauge, NY: Nova Science Publishers, Inc.

6. **Chang, C.H.** (2012). Dynamic pain assessment: An application of Clinical Infometrics to personalized pain treatment and management. In R. J. Moore (Ed.), *Handbook of Pain and Palliative Care: Biobehavioral Approaches for the Life Course* (pp. 121-130). New York: Springer.

### Abstracts (2015 - Present)

1. **Chang, C.H.**, Sliwa J.A., Moore, J., Heinemann, A., Deutsch, A. *A Novel Clinical Outcomes Assessment System for Precision Medicine in Rehabilitation: Development and Applications*. Poster session presented at the 2015 ACRM Conference, Dallas, TX.
2. Hansen, P., Moore, J., Holleran, C., **Chang, C.H.**, Ellison, J., Carpenter, J., Gruber, C., Sliwa, J. *Selection and Pilot of a Core Assessment Battery for Inpatient Rehabilitation*. Platform presented at the Combined Sections Meeting of the American Physical Therapy Association (APTA), February, 2016, Anaheim, CA.
3. Hansen, P., Carpenter, J., Moore, J., Holleran, C., Ellison, J., **Chang, C.H.**. *Selection & Pilot of a Core Battery of Standardized Assessments for Inpatient Rehabilitation*. Oral seminar session presented at the ASHA Annual Convention, November 19, 2016, Philadelphia, PA.
4. Hansen, P., **Chang, C.H.**, Bodine, A. *Improving Efficiency of Action Research Arm Test Administration Through Item Response Theory*. Scientific poster presented at the AOTA Annual/Centennial Conference, March 31, 2017, Philadelphia, PA.
5. **Chang, C.H.**, Bodine, A., Sliwa, J. *Development of the Ability Quotient (AQ): An Innovative Assessment System for Precision Rehabilitation Outcomes*. Oral presentation (#309432) at the American Congress of Rehabilitation Medicine Conference, October, 2017, Atlanta, GA. (Archives of Physical Medicine and Rehabilitation, Volume 98, Issue 10, PE14.
6. Kim, M.Y., **Chang, C.H.**, Foster, E. *Measuring Participation Enfranchisement in Parkinson Disease*. Poster session presented at the 2019 Occupational Therapy Summit of Scholars, June 10-11, Charleston, SC.
7. Park, A., Chun, I., **Chang, C.H.**. *PROUD: Precision Rehabilitation Outcomes Universal Design*. Poster session presented at the Summer Internships in Biomedical Informatics & Data Science at the Institute for Informatics (BIDS@I<sup>2</sup>), Washington University School of Medicine, July, 2010, St. Louis, MO.
8. Mehta, A., Chun, I., **Chang, C.H.**. *STL: Smart Testing and Learning*. Poster session presented at the Summer Internships in Biomedical Informatics & Data Science at the Institute for Informatics (BIDS@I<sup>2</sup>), Washington University School of Medicine, July, 2010, St. Louis, MO.
9. L'Hotta, A., Hoyt, C., Lindsey, T., Abel, R., King, A., **Chang, C.H.**. *Validation of the Fine Motor Subtest of the Bayley-III Using Rasch Analysis*. Poster session presented at the 2019 American Congress of Rehabilitation Medicine (ACRM) Conference, Chicago, IL.
10. Li, Y., Xiong, C., Aschenbrenner, A., **Chang, C.H.**, Buckles, V., Moulder, K., Weiner, M.,

## Curriculum Vitae

Mungas, D., Nosheny, R., Howell, T., Morris, J., *Item Response Theory Analysis of the Clinical Dementia Rating*. Oral presentation at the 2019 Clinical Trials on Alzheimer's Disease (CTAD), December 4-7, 2019, San Diego, CA.