Jacquelyn Sue Pennings

Curriculum Vitae

EDUCATION:

2009 Texas Christian University, Fort Worth, TX

Doctor of Philosophy, Experimental Psychology (Developmental Lab) Dissertation: *The Effects of a Touch Intervention on Nurturing Touch*,

Family Functioning, and Child Behavior

2005 Texas Christian University, Fort Worth, TX

Master of Science, Experimental Psychology (Developmental Lab) Thesis: *Effects of maternal deprivation on problem behavior in post-*

institutionalized children

2001 Belmont University, Nashville, TN

Bachelor of Science, Magna Cum Laude, Psychology Major/Statistics

Minor, Honors Program

Honors Thesis: Self-Perceptions and Physical Education

ACADEMIC APPOINTMENTS:

August 2014 – **Adjunct Faculty**, Texas Christian University, Fort Worth, TX

December 2014 Course: Graduate Statistics in the Kinesiology Department

Topics: Data manipulation, charts (histograms, box-plots, scatterplots, Q-Q plots, etc), descriptive statistics, effect sizes, crosstabulations with chisquare, correlations, means comparisons (t-tests, ANOVAs), MANOVAs,

repeated measures analysis

August 2012 – **Adjunct Faculty**, Texas Christian University, Fort Worth, TX

Taught Graduate Statistics in the Kinesiology Department

Topics: Data manipulation, charts (histograms, box-plots, scatterplots, Q-Q plots, etc), descriptive statistics, effect sizes, crosstabulations with chisquare, correlations, means comparisons (t-tests, ANOVAs), MANOVAs,

repeated measures analysis

EMPLOYMENT:

Dec 2012

February 2016 - **Biostatistician**, Vanderbilt University Medical Center, Nashville, TN

Present Statistical analysis & data cleaning

Database design/management Collaborate on research design

Development of methods, analysis plans, written reports

Jan 2008-February 2016

Statistician & Director of Nonprofit Research, Elite Research LLC,

Carrollton, TX

Conduct statistical analysis (i.e., linear and logistic regression, mixed models, exploratory/confirmatory factor analysis, covariance-based and partial least squares structural equation modeling, power analysis, ROC curve, growth curve models, mediation testing)

Write-up methods, results, and discussion section for manuscripts Create statistical analysis plans for grants and client projects Consult on research design

Conduct seminars on research methods, design, and statistics Supervise internal research analysts and assistants

Major clients include academic, medical, and non-profit researchers:

- Columbia Medical Center of Plano
- Columbia Medical Center of Lewisville
- Denton Regional Medical Center
- Harris College of Nursing & Health Sciences, Texas Christian University

January 2015 -January 2016 Statistical Research Specialist, Division of Research, Tennessee Department of Mental Health and Substance Abuse Services, Nashville, TN Monitor and analyze statewide substance abuse trends

Epidemiologist for TN state epidemiological outcomes workgroup

July 2013-February 2016 Senior Statistical Consultant, Texas Woman's University, Denton TX
Consult with faculty on grant proposals and grand funded research
Conduct statistical analysis and manuscript write-up of results
Conduct seminars on grant writing

June 2005 – July 2009 **Research Coordinator**, TCU Institute of Child Development, Fort Worth, TX Design and conduct research studies, analysis, interpretation, and presentation of statistical findings

Write research protocols for Institutional Review Board approval Supervise undergraduate and graduate research assistants including working with them on their research projects and statistical analysis In home and on campus work with adoptive families

Aug 2004 – May 2005 Lab Instructor/Teacher Assistant, Department of Psychology, Texas Christian

University, Fort Worth, TX
Developmental Psychology (Fall 2004)

Principles of Behavior II (Spring 2005)

Introduction to Psychology (Fall 2005)

2004 - 2005

Academic Athletic Services, Texas Christian University

Tutor athletes in various psychology courses

PROFESSIONAL ORGANIZATIONS:

- American Statistical Association
- Middle Tennessee Psychological Association
- Alpha Chi National College Honor Scholarship Society
- Southeastern Psychological Association
- Psi Chi, National Honor Society in Psychology
 President 1999 –2000, Belmont University Chapter
 Vice President 2000 –2001, Belmont University Chapter
- Gamma Beta Phi, National Honor Society Treasurer 1999 – 2000, Belmont Chapter
- Phi Eta Sigma National Honor Society

PROFESSIONAL ACTIVITIES:

Presentations, Seminars, Lectures

- Pennings, J. S. (2011, June-August). Summer Intern Training for Data Cleaning and Statistical Analysis. Elite Research, Carrollton, TX.
- Pennings, J. S. & Paulson, R. M. (2011, April 4-21). SPSS and Statistics Training Series Beginner, Intermediate, and Advanced. Daily training course (12 hrs./week) held in Carrollton, TX.
- Pennings, J.S. & Paulson, R.M. (2011, February 18). *Statistics Using SPSS and Computing Effect Sizes*. Seminar presented at University of North Texas, Denton, TX.
- Pennings, J. S. (2010, June-August). Summer Intern Training for Data Cleaning and Statistical Analysis. Elite Research, Carrollton, TX.
- Pennings, J. S. & Paulson, R. M. (2009, May). *Research Design and Methods for Non-Profit Research*. Workshops presented at Scripture Union, Accra, Ghana (May 19) and One Hope, Mbabane, Swaziland (May 21).
- Paulson, R. M. & Pennings, J. S. (2009, May 13, 14), *Choosing Appropriate Research Design and Statistical Analysis*. Workshops presented at Daystar University and Pan Africa Christian University (PACU), Nairobi, Kenya.
- Paulson, R. M. & Pennings, J. S. (2009, May 18). *Structural Equation Modeling with Amos and Lisrel*. Seminar for Global Network for Environment and Economic Development Research, Ibadan, Nigeria.
- Paulson, R. M. & Pennings, J. S. (2008, December 12). *Importance of Statistics, Use of Statistics in Nonprofits*, and *Statistical Tricks and Traps*. Presented at the Global Research Workshop at OneHope, Pompano Beach, FL.

Continuing Education

Applied Longitudinal Analysis (American Statistical Association, 2016)

Modeling Ordinal Categorical Responses, with Examples Using R (American Statistical Association, 2016)

Regression Modeling Strategies Short Course (Vanderbilt University May, 2016)

Analysis of Clinical Trials: Theory and Application (American Statistical Association, 2014).

Genomic Clinical Trials and Predictive Medicine (American Statistical Association, 2014).

Comprehensive PLS Path Modeling Course, April-May 2011.

Adult Attachment Interview Training/Scoring Institute, 2007 (reliability check complete January, 2009).

Crisis Prevention Institute Training, 2005.

Neuroscience, Inc. Training, 2005.

Theraplay Institute Training, Introductory MIM and Theraplay, 2004.

GRANT ACTIVITIES: Ongoing Research Support

February 2016 – Present

(PI: Kristin Swygert, D.P.T, Ph.D)

Neuropoint Alliance (NPA) Funded QOD Quality Improvement Registry

The primary goals of this registry are to: (1) Establish risk-adjusted expected morbidity and patient-reported outcomes (PROs) for the most common spine (lumbar, deformity, and cervical spine) and cerebrovascular surgeries. This will generate national benchmarks for 30-day morbidity, mortality, and 30-day (cerebrovascular module), 3- and 12-month (lumbar, deformity, and cervical spine) PROs. (2) Provide practice groups and hospitals immediate infrastructure for analyzing their 30-day morbidity and mortality and 3- and 12-month PROs data in real-time, allowing measurement of health-services initiatives or practice paradigm shifts. (3) Generate surgeon- and practice-specific quality and outcomes data to support claims made to private payers. (4) Generate nationwide quality and effectiveness data on specific surgical treatments to support claims made to the U.S. Department of Health and Human Services and Centers for Medicare and Medicaid Services (CMS). (4) Demonstrate the comparative effectiveness of different surgery procedures.

Role: REDCap and database manager and developer, biostatistician

February 2016 – Present

(PI: Kristin Swygert, D.P.T, Ph.D)

Funded by PCORI

CER-1306-01970 Comparative Effectiveness of Postoperative Management for Degenerative Spinal Conditions

This 2-site randomized clinical trial will compare which of two treatments provided by telephone - Cognitive Behavioral Based Physical Therapy (CBPT) or an education program about postoperative recovery - are more effective for improving pain, disability, general health and physical function outcomes.

Role: Biostatistician

Completed Research Support

September 2013 – February 2016

(PI: Debbie Rhea, Ph.D.)

Funded by Texas Christian University, The Miles Foundation, The Walsh Foundation, Alan C. Fox, and others

Project LiiNK (Let's Inspire Innovation 'N Kids)

The purpose of the project is to examine the effectiveness of a combined recess and social/character development intervention to produce a more inclusive, equitable and effective learning environment for K-8 level children longitudinally (over the next five years). http://liinkproject.tcu.edu/

Role: assist with grant writing; advise on research design and data entry protocols for evaluation of program; statistical analysis, statistical write up of results for reports and manuscripts

January 2011 – February 2016

(PI: Judith McFarlane, Ph.D.)

The Houston Endowment

Testing Two Global Models to Prevent Violence Against Women and Children: Methods and Policy Implications for a Seven Year Prospective Study

Worldwide, two models of care are offered most often to abused women – safe shelter and justice services. No evidence exists on the differential effectiveness of the models. To provide evidence for best practice and policy, 300 abused women, 150 first time users of a shelter and 150 first time applicants for a protection order, signed informed consent to participate in a seven year study. Safety, abuse, emotional and physical functioning of the women and their children were measured. A naturalistic, prospective study with repeated measures of safety, re-abuse, and woman and child functioning over a 7-year period is underway. Principles of Community Based Participatory Research (CBPR), a collaborative process of research involving researchers and community representatives, was used to maximize successful recruitment and retention of participants and facilitate integrating the research findings into best practice and policy for abused women and their children. CBPR engages community members, uses local knowledge in the understanding of health problems and the design of interventions, and invests community members in

the processes and products of research. Community members are also involved in the dissemination and use of research findings.

Role: Research design, instrumentation development, data preparation, scoring, statistical analysis for program evaluation, stakeholder reports, manuscript preparation, and grant proposal development for future directions, as well as collaboration with other community researchers.

April 2014 – November 2016

(PIs: Bruce Link, Ph.D., Kirstin Painter, Ph.D.)

R01 – NIH Submission (RFA-MD-13-005). Limited Competition: Revision Applications for Basic Social and Behavioral Research on the Social, Cultural, Biological, and Psychological Mechanisms of Stigma (R01)

Assessing Parent to Child Transmission of Mental Illness and Race/Ethnic Stigma

This study will utilize a causal-comparative methodology that builds upon our current Stigma Context for Youth study being conducted with a diverse population of youths and their caregivers. Our current study is a 2 x 2 x 2 factorial, randomized controlled, repeated measures stigma study aimed at assessing long-term differences across 8 conditions in reducing behaviors reflective of stigma, prejudice, and discrimination and enhancing help seeking behavior so as to bring people in need to mental health services. We have adapted and developed new measures to add to our existing comprehensive assessment package which consists of open-ended questions, vignettes, and self-report measures. The combination of our existing measures along with our new measures will allow us to examine both implicit and explicit generational transmission of stigmatizing attitudes and behaviors in a uniquely unprecedented fashion.

Role: assist with grant writing; conduct statistical analysis; advise on research design; power/sample size calculations.

April 2011 – August 2015

(PI: Bruce Link, Ph.D., Columbia University)

R-01 NIH/NIMH Submission (General)

A School-Based Intervention to Reduce Stigma and Promote Mental-Health Service Use

A field experiment to evaluate a comprehensive multifaceted intervention designed to change attitudes and behaviors regarding mental illnesses during the critical period of early adolescence. The project seeks a rigorous test, with long-term follow-up, of a comprehensive intervention in sixth grade that is designed to 1) enhance knowledge, change inaccurate beliefs and facilitate the development of more positive attitudes towards people with mental illnesses, 2) improve the lives of children and adults with mental illnesses by reducing their exposure to behaviors reflective of prejudice and discrimination, and 3) induce help-seeking behaviors that bring people to appropriate mental health services.

Role: Research design and statistical analysis

May 2006 – June 2013

(PI: Allen Reesor)

Maclellan Foundation and Global Ministries - Book of Hope International *Attitudes and Behaviors of Youth*

The purpose of this project is to understand what children and youth deal with in their day-to-day realities. The project assesses the needs of children from country to country and even regionally within countries with a goal to collect stratified data in more than 62 countries in order to provide reliable information to tailor our products and distribution programs to address needs specific to particular contexts. To date 43 countries have been completed.

Role: Research design and statistical analysis

Doctoral Discertation Defense

January 12, 2009 – March 5, 2010

(PI: Al York, Kami Ecker)

US President's Emergency Plan for AIDS Relief (PEPFAR)

Measuring the Effectiveness of iMatter Training on South African School Children

Evaluating an intervention. Hope Education Foundation, in partnership with Reaching a Generation, received a PEPFAR prevention training grant to equip teachers and provide I-Matter materials to learners in South Africa.

Role: Research design and statistical analysis for program evaluation

RESEARCH ACTIVITIES

2000

2009	Doctoral Dissertation Defense
	The Effects of a Touch Intervention on Nurturing Touch, Family
	Functioning, and Child Behavior
2007	National Institute of Mental Health Research Grant Proposal From Intervention Development to Services: Exploratory Research Grants

2005 Master's Thesis Defense
Effects of maternal deprivation on problem behavior in postinstitutionalized children.

2003 – 2009 Developmental Research Lab Projects, Texas Christian University
Child Behavior Checklist, Neurotransmitter profiles, attachment
assessments in internationally adopted children, Timberlawn couple
interaction scale for parents of internationally adopted children.

2001 Undergraduate Honors Thesis
Self-Perceptions and Physical Education.

1999 Psychology Statistics Laboratory Manual
Used in research methods class - Belmont University beginning Fall 2000.

PUBLICATIONS:

- 1. Rus, A., Stativa, E., Butterfield, M., **Pennings, J.**, Parris, S., Burcea, G., Wenyika, R. (In press). Peer Exploitation: Findings from a Romanian Nationally Representative Sample of Children Living in Long-Term Residential Centres. *Child Abuse Review*. Accepted for publication Oct. 11, 2016.
- 2. Rhea, D.J., Rivchun, A.P., & **Pennings, J.** (2016). The Liink Project: Implementation of a Recess and Character Development Pilot Study with Grades K & 1 Children. *Texas Association of Health, Physical Education, Recreation, & Dance Journal (TAHPERD), 84*(2), 14-17.
- 3. Stativa, E., Rus, A.V., Stanescu, A., **Pennings, J.S.**, Parris, S.R. & Wenyika, R. (In press). Prevalence and Predictors of Anaemia in Romanian Infants 6-23 Months Old. *Journal of Public Health*. First published online October 22, 2015 doi:10.1093/pubmed/fdv145
- 4. Fredland, N., McFarlane, J., Symes, L., Maddoux, J., **Pennings, J.**, Paulson, R., Binder, B. & Gilroy, H. (2016). Modeling the intergenerational impact of partner abuse on maternal and child function at 24 months post outreach: Implications for practice and policy. *Nursing Outlook*, 64(2), 156-169. doi:10.1016/j.outlook.2015.10.005
- 5. Symes, L., Maddous, J., McFarlane, J. **Pennings, J.** (2016). A risk assessment tool to predict sustained PTSD symptoms among women reporting abuse. *Journal of Women's Health*, *25*(4), 340-347. doi:10.1089/jwh.2015.5287.
- 6. McFarlane, J., **Pennings, J.**, Liu, F.Q., Gilroy, H., Nava, A., Maddoux, J., Montalvo-Liendo, N., & Paulson, R. (2016). Predicting abused women with children who return to a shelter: Development and use of a rapid assessment triage tool. *Violence Against Women*, 22(2), 189-205
- 7. Daniels, G., Robinson, J.R., Walker, C., **Pennings, J.S.**, Anderson, S.T. (2015). Gastrointestinal Symptoms among African Americans Undergoing Hemodialysis. *Nephrology Nursing Journal*, 42(6), 539-548.
- 8. **Pennings. J.**, McFarlane, J., Paulson, R., Fredland, N., Binder, B., Koci, A., & Montalvo-Liendo, N. (2015). Predicting Behavioral Dysfunctions of Youth Living in Violent Homes: A Rapid Assessment Triage Tool. *Journal of Applied Research on Children: Informing Policy for Children at Risk*, 6(1), Article 11.
- 9. Alexander, G.K., Rollins, K., Walker, D., Wong, L., & **Pennings, J.** (2015). Yoga for self-care and burnout prevention among nurses. *Workplace Health & Safety, 63(10), 462-470.*
- 10. Fredland, N., McFarlane, J., Symes, L., Gilroy, H., Paulson, R., Nava, A., & **Pennings, J.S.** (2015). Connecting Partner Violence to Poor Functioning for Women and Children: Modeling Intergenerational Outcomes. *Journal of Family Violence, 30(5),* 555-566.
- 11. McFarlane, J., **Pennings, J.,** Symes, L., Maddoux, J., & Paulson, R. (2014). Predicting Abused Women with Children Who Return to the Abuser: Development of a Risk Assessment Tool. *Journal of Threat Assessment and Management, 1(4),* 274-290

- 12. Stativa, E. Rus, A.V., Suciu, N., **Pennings, J.S.**, Butterfield, M.E., Wenyika, R., & Webster, R. (2014). Characteristics and prenatal care utilisation of Romanian pregnant women. *The European Journal of Contraception and Reproductive Health Care*, 19(3), 220-226.
- 13. Rus, A. V., Stativa, E., **Pennings, J. S.**, Cross, D. R., Ekas, N., Purvis, K., & Parris, S.R. (2013). Severe Punishment of Children by Staff in Romanian Placement Centers for School-Aged Children: Effects of Child and Institutional Characteristics. *Child Abuse and Neglect*, *37*(12) 1152-1162.
- 14. Dietz, T., Davis, D, & **Pennings, J. S**. (2012). Evaluating and Comparing the Efficacy of Three Group Therapies for Child Sexual Abuse: The Effect of Incorporating Animal Assisted Therapy, *Journal of Child Sexual Abuse*, 21(6), 665-683
- 15. Purvis, K. B., Cross, D. R., & **Pennings, J. S.** (2009). Trust-Based Relational Intervention™: Interactive Principles for Adopted Children With Special Social-Emotional Needs. *Journal of Humanistic Counseling, Education & Development, 49,* 3-22.
- 16. Purvis, K. B., Cross, D. R., & **Pennings, J. S**. (2007). International adoption of post-institutionalized children: Implications for school counselors. *Journal of School Counseling*, *5*(22). Retrieved December 3, 2007, from http://www.jsc.montana.edu/articles/v5n22.pdf
- 17. Purvis, K., Cross, D., Kellermann, G., Kellermann, M., Huisman, H, & **Pennings, J. S**. (2006). An experimental evaluation of targeted amino acid therapy with behaviorally at-risk children. *Journal of Alternative and Complementary Medicine*, 11, 591-593.

CONFERENCE PRESENTATIONS:

- 1. Alexander, G.K., Rollins, K., Walker, D., Wong, L., & Pennings, J. (2015, February 26). Efficacy of yoga to improve self-care and reduce burnout among nurses. Podium presentation, 29th Annual Conference of SNRS (Southern Nursing Research Society), Tampa, FL.
- 2. McFarlane, J., Pennings, J., Liu, F., Gilroy, H., Nava, A., Maddoux, J., Montalvo-Liendo, N., & Paulson, R. (2014). Predicting Abused Women with Children who Return to Shelter: Development and Use of a Rapid Assessment Triage Tool. Poster presented at Southern Nursing Research Society 28th Annual Conference, San Antonio, Texas.
- 3. Pennings, J. S. (2013, August). *Statistical Practice without Borders: Consulting Opportunities and Challenges to Overcome in Developing Countries*. Topic contributed panel Statistics without Boarders presented at Joint Statistical Meetings (JSM), Montreal, Quebec.
- 4. Pennings, J. S. (2009, April). *The Effects of a Touch Intervention on Nurturing Touch, Family Functioning, and Child Behavior.* Paper presented at the Families of Russian and Ukrainian Adoption Conference, Fort Worth, TX.

- 5. Howard, A. R., Pennings, J. S., Cross, D. R., McKenzie, L. B., & Purvis, K. B. (2009, April). *A Preliminary Evaluation of the Beech Brook Attachment Disorder Checklist*. Poster presented at the Society for Research in Child Development, Denver, CO.
- 6. Rus, A. V., Pennings, J. S., Kellerman, G., Cross, D. R., & Purvis, K. B. (2009, April). *Profiles of Romanian Infants and Toddlers*. Poster presented at the Society for Research in Child Development, Denver, CO.
- 7. Purvis, K., Kellermann, G., Cross, D., Kellermann, M., Huisman, H., & Pennings, J.S. (January, 2006). *An Experimental Evaluation of Targeted Amino Acid Theraplay with At-Risk Children*. Poster presentation at the Natural Supplements: An Evidence-Based Update Conference, La Jolla, CA.
- 8. Pennings, J. S., Kolb, H., & Hawkins, J. (April, 2006). *Behavior problems in internationally adopted children*. Poster presentation at the annual meeting of the Society for Research in Human Development, Fort Worth, TX.
- 9. Pennings, J. S. (February, 2004). *Couple interactions and child outcomes in special needs adoption*. Paper presentation at the annual Psi Chi Convention, Texas Christian University, Fort Worth, TX.
- 10. Brummett, R., Pennings, J. S., & Bailey, W. (August 2001). *Relationships among perfectionism, achievement striving, and personal responsibility*. Poster presentation at the annual meeting of the American Psychological Association, San Francisco, CA.
- 11. Brummett, R., Pennings, J. S., Petersen, J., Wilson, J., Conway, N., Brinkmeyer, B., & Workman, M. (March, 2000). *A psychometric evaluation of the Belmont Perfectionism Scale (BPS)*. Paper presented at the annual meeting of Southeastern Psychological Association, Atlanta, GA.
- 12. Pennings, J. S. (April, 2001). *Self-Perceptions and Physical Education*. Thesis oral defense at the annual meeting of the Belmont Undergraduate Research Symposium, Nashville, TN.
- 13. Pennings, J. S., Hamilton, B. L., & Jackson, J. (March, 1999). *The relationship among self-schema, dieting intentions, dieting behaviors, and behavioral control.* Poster presentation at annual meeting of Southeastern Psychological Association, Savannah, GA.
- 14. Pennings, J. S., Pearson, C., Yandell, L. (April, 2000). *The effects of familiar and unfamiliar melodies on semantic, rhyming, and spatial tasks*. Poster presentation at the annual National Conference of Undergraduate Research, Missoula, MT.
- 15. Pennings, J. S., & Yandell, L. (April, 1999). *The relationship between adolescent maturation, manipulated self-efficacy, and athleticism.* Paper presentation at the annual Belmont Undergraduate Research Symposium, Nashville, TN.

16. Pennings, J. S., & Yandell, L. (December, 1999). *The effects of pleasantness and familiarity of flavor on motor and cognitive task performance*. Paper presentation at the annual Psychology Undergraduate Research Symposium, Belmont University, Nashville, TN.

SKILLS AND TRAINING:

- Accredited Professional Statistician by American Statistical Association (May 2012 May 2017).
- Thorough knowledge of basic and applied research, research design, and research methodology with strong statistical skills with knowledge of linear and logistic regression modeling, ANOVA, principle component analysis, reliability analysis, nonparametric comparisons, and other multivariate techniques including covariance based SEM and partial least squares modeling.
- Experience with federal and foundation grant proposal writing and research evaluation.
- Knowledge and experience with statistical packages: SPSS, R, SmartPLS, Medcalc, Minitab, SYSTAT, LISREL, MLwin and EViews. Limited experience with SAS and Stata.
- Experience with large-scale databases.
- Experience in conducting independent and group research and scale development.
- Experience in analyzing data, write-up and presentation of findings (i.e. journal submissions, poster & conference presentations).
- Experience with online survey development (REDCap, Psychdata, Qualtrics, Survey Monkey, Survey Gizmo, etc) and data collection.

AWARDS AND HONORS:

2003	Green Honors Fellowship Recipient, Texas Christian University
2001	Marie H. Means Outstanding Graduating Student in Psychology, Belmont University
2001	Who's Who Among Students in American Universities & Colleges
Apr, 1998	Psi Chi Research Poster Award – Self-Schema, Intentions, Behaviors, and Behavioral Control with Regard to Dieting Savannah, GA
1997 – 2001	Academic Scholarship, Belmont University
1997 – 2001	National Dean's List
1997 – 2001	Belmont University Dean's Lists