

## CURRICULUM VITA

Frank James Symons

### Address/Personal Information

Frank Symons, Ph.D.  
Department of Educational Psychology  
College of Education and Human Development  
345 Education Sciences Building 56 River Road  
University of Minnesota, Minneapolis, MN 55455

Phone: (612) 626-8697  
Fax: (612) 626-9627  
E-mail: [symon007@umn.edu](mailto:symon007@umn.edu)

DOB: 7/11/67  
POB: Palmerston, Ontario, Canada  
Citizenship: Canadian  
Residency: U.S. (Permanent)

### Education

1989 B.A. University of Manitoba, Psychology  
1992 M.Ed. University of Alberta, Educational Psychology  
1996 Ph.D. Vanderbilt University, Education and Human Development  
1997 John F. Kennedy Center, Vanderbilt University  
Post-Doctoral Fellow, Institute for Developmental Neuroscience

### Primary Appointments

2014 Associate Dean for Research & Policy  
College of Education & Human Development  
University of Minnesota, Minneapolis, MN  
2011- Professor, Department of Educational Psychology  
University of Minnesota, Minneapolis, MN  
2003-2011 Associate Professor, Department of Educational Psychology  
University of Minnesota, Minneapolis, MN  
2000-2003 Assistant Professor, Department of Educational Psychology  
University of Minnesota, Minneapolis, MN

**Professional Experience**

2014-current	Research Affiliate, Mayo Clinic, Rochester, MN
2013-2014	Coordinator, Special Education Programs, Dept. of Educational Psychology University of Minnesota, Minneapolis, MN
2010-current	Research Affiliate, St. Amant Center University of Manitoba, Winnipeg, MN Canada
2010-current	Core Faculty, Leadership Education in Neurodevelopmental Disabilities Training Program, University of Minnesota, Minneapolis, MN
2008-current	Faculty Fellow, MN Center for Philosophy of Science University of Minnesota, Minneapolis, MN; Faculty Associate 2001-2007.
2004-current	Core Faculty, Center for Neurobehavioral Development (CNBD) University of Minnesota, Minneapolis, MN; Faculty Associate 2001-2004.
2002-current	Faculty Associate, MN Center for Pain Research University of Minnesota, Minneapolis, MN
2005-2007	Coordinator, Special Education Programs University of Minnesota, Minneapolis, MN
2002-2005	Faculty Associate, Center for Early Education and Development University of Minnesota, Minneapolis, MN
1997-2000	Research Assistant Professor, Department of Psychiatry, University of North Carolina at Chapel Hill, Chapel Hill, NC
1998-2000	Clinical Research Scientist, Center for Development and Learning, University of North Carolina at Chapel Hill, Chapel Hill, NC
1997-2000	Research Scientist, Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill, Chapel Hill, NC
1997-2000	Research Assistant Professor, School of Education, University of North Carolina at Chapel Hill, Chapel Hill, NC

**Professorships**

2015	Distinguished McKnight University Professor University of Minnesota
2012-	Coffman Professor College of Education & Human Development University of Minnesota
2002-2004	McKnight Land-Grant Professor University of Minnesota

**Career Awards**

2006-2011	Independent Scientist Career Development Award NIH - National Institute for Child Health and Human Development
2006-2007	Distinguished Early Career Research Award Council for Exceptional Children
1999-2000	Distinguished Junior Scholar-in-Residence Peter Wall Institute for Advanced Studies, University of British Columbia

**Named Lectures**

2013	Derrick Smyth Lecture British Columbia Children's Hospital
2007	Council for Exceptional Children (CEC) Early Career Research Lecture
2000	Peter Wall Institute for Advance Studies, Distinguished Junior Scholar Lecture
1998	Belmont University Annual Undergraduate Research Lecture

**Academic Awards & Honors**

2015	Fellow, American Association on Intellectual and Developmental Disabilities
2014	Excellence in Research Award, College of Education & Human Development University of Minnesota
2012	Outstanding Faculty Award, Council of Graduate Students, University of Minnesota
1996	Social Sciences & Humanities Research Council of Canada (SSHRC) Post-Doctoral Fellowship (awarded, not held)
1996	Robert Gaylord-Ross Scholarly Writing Award, Vanderbilt University
1996	Stevens-Shapiro Memorial Fellowship (IASSID)
1994	John F. Kennedy Center Graduate Student Research Award
1993-1995	Medical Research Council of Canada Doctoral Trainee Fellowship

**Federal Research Grant Support (PI unless noted)**

2013-2018	NICHD R01 Grant: Intrathecal Baclofen and Pain Outcomes in Cerebral Palsy.
2010-2015	NICHD R01 Grant: Nociceptive and Sensory Mechanisms in Self-Injury.
2010-2015	NIMH P20 Developing Center Grant: Developing Center for Adaptive Models in Child Prevention Research. PI: Gerald August, Role: Co-I, Administrative Core Director.
2007-2012	Institute for Education Sciences (IES) Grant: Comparison of Two Comprehensive Treatment Models for Preschool-aged Children with Autism and their Families. Autism Spectrum Disorders Research Competition. PI: Samuel L. Odom, Role: Co-I.
2004-2010	NICHD R01 Grant: Biobehavioral Analysis of Self-Injury and Pain.
2004-2008	IES. Treatment of Emotional and Behavioral Disorders, Department of Education (OSEP, Center Grant). PI: Joseph Wehby, Role: Co-I.
2003-2005	NICHD R03 Grant: Behavioral Mechanisms in Early Aggression, PI Jennifer McComas, Role: Co-I.
2000-2002	NICHD R03 Grant: Risk Factors and the Early Development of Self-Injury
1998-1999	NINR Small Grant Award: The Early Development of Repetitive Behavior Problems in Vulnerable Children, Center for Research on Chronic Illness
1997-2002	NICHD R29 Grant: Behavioral and Biochemical Mechanisms of Self-Injury

**Other Grant Support (PI unless noted)**

2015-2017	Mayday Foundation. Pain in neurodevelopmental disorders: Measurement psychometrics.
2014-2019	National Center on Leadership in Intensive Intervention (NCLII). Office of Special Education Projects, U.S. Department of Education. Principal Investigators: J., Wehby, C. J. Lemons, D. Fuchs, & L. Fuchs, Role: U of M Site Co-Principal Investigator.
2011-2012	Clinical and Translational Science Institute (CTSI): Using Biomarkers to Understand Chronic Pain in Girls with Rett Syndrome. University of Minnesota
2008-2011	MN Futures Phase II: Pain in Neurodevelopmental Disorders: Analgesic Failure and the Promise of Biomarkers. Office of Vice President for Research, University of Minnesota.
2007-2008	MN Futures Phase I: Pain in Neurodevelopmental Disorders: Analgesic Failure and the Promise of Biomarkers. Office of Vice President for Research, University of Minnesota.

2005-2006	Translational Research Center in Behavior Disorders [Development of Intercollegiate Research Proposals and Networks], Office of the Vice President for Research (OVPR).
2003-2006	Minnesota Medical Foundation Grant: Autonomic Dysregulation in Children with Autism and Traumatic Brain Injury
2001-2003	Office of Vice President for Research, U of M: Interdisciplinary Planning Grant for Research and Training in Behavior Disorders.
2001-2002	Metropolitan Regional Crisis Planning Group Grant: Systematic Assessment of Challenging Behavior, PI: Jennifer McComas, Role: Co-I
2000-2003	University of North Carolina Foundation of Hope Grant: Biochemistry of Pain in Self-Injury in Developmental and Psychiatric Disorders.
1999-2000	Elli Lilly & Co. Grant: Effects of Olanzapine on Self-Injurious Behavior, PI George Breese, Role: Co-I.

### Professional Societies

American Association for the Advancement of Science (AAAS), American Association on Intellectual Disabilities (AAIDD), American Educational Research Association (AERA), Association for Behavior Analysis (ABA), Society for Research in Child Development (SRCD), Council for Exceptional Children (CEC), International Association for the Study of Pain (IASP)

### Professional Activities

2015	Tenure & Promotion Review (John Hopkins University, University of Florida)
2015	Reviewer, NIH ZHD1 DSR-K 90 1
2014	Reviewer, NIH/NICHD U54 IDDRC Center Grants
2014	Tenure & Promotion Review (University of Texas, University of Massachusetts, University of Oregon)
2013	Reviewer, NIH/NICHD U54 IDDRC Center Grants
2012	Tenure & Promotion Review (Johns Hopkins University; Southern Illinois University, University of Florida, University of Rochester Medical Center)
	Member, Conference Planning Committee, Pain and Disability Across the Lifespan, Gillette Children's Specialty Healthcare, Saint Paul, MN
2012 – Present	Member, Children's Hospital Association, Strategic Planning & Quality Assurance Committee
2011	Reviewer, NIH/NICHD ZRG1 BBBP-J 05M
2010 - Present	Member, National Advisory Committee, Kansas Institute on Intellectual and Developmental Disabilities (NIH/NICHD P30 Center), LifeSpan Institute, University of Kansas
2008 – Present	Member, NIH T-32 (Doctoral/Post-Doctoral Training Grant in Neurodevelopmental Disability) National Advisory Committee, Waisman Center, University of Wisconsin
2008	Reviewer, NIH/NICHD BBBP L 58
	Reviewer, NIH/NICHD BBBP6 Study Section
	Member, Conference Planning Committee, Pain and Disability Across the Lifespan, Gillette Children's Specialty Healthcare, Saint Paul, MN
2007 - Present	Member, Review Committee B, March of Dimes Scientific Advisory Committee
	Member, Executive Committee on Pain Management Research and Practice, Gillette Children's Specialty Healthcare, Saint Paul, MN
2007-2008	Member, Planning Committee for Behavioral Development and Mental Health, IASSID World Congress, International Association for the Scientific Study of Intellectual Disability, South Africa
2006-2008	NICHD Study Section Member ZHD1 DSR-M Health, Behavior, & Context
2006-2007	P01 Reviewer, NIH/NICHD BBBP6 Study Section.

- 2003 Invited Participant, Development & Validation of a Clinical Pathway for Treating Pain in Children with Severe Cognitive Impairment. The Pain in Child Health Training Consortium, Canadian Institutes of Health Research, Halifax, NS, Canada.
- 2002-2004 Member, Planning Committee for Behavioral Development and Mental Health, IASSID World Congress, International Association for the Scientific Study of Intellectual Disability, France.
- 2002-2003 Reviewer, NIH/NICHD BBBP6 Study Section.
- 2001 Reviewer, Ontario Mental Health Foundation Research Grant
- 1998 Discussant, State of the Science in Autism: Screening and Diagnosis, National Institutes of Health (NICHD) Autism Coordinating Committee, Bethesda, MD.
- 1997-2000 Member, Board of Directors, The Arc of Orange County, Chapel Hill, NC.
- 1996 Reviewer, Nicholas Hobbs Society Small Grants Program, Vanderbilt University, Nashville, TN.  
Member, Autism Task Force Planning Committee, Nashville/Davidson County Metropolitan Public Schools, Nashville, TN.
- 1995-1996 Member, Human Rights Committee, The Arc of Davidson County, Nashville, TN
- 1995 Member, Human Rights Committee, Mur-Ci Homes, Inc. Nashville, TN.

### Editorial Activities:

- 2008 – 2014 Associate Editor, *American Journal on Intellectual and Developmental Disabilities*
- 2005 – Present Editorial Board *Journal of Intellectual Disability Research*
- 2003 – Present Editorial Board *Journal of Applied Research in Intellectual Disabilities*
- 2001 - Present Editorial Board *Developmental Disabilities Bulletin*
- 2007 – 2011 Editorial Board, *Behavioral Disorders*
- 2005 – 2007 Editorial Board, *American Journal on Mental Retardation*
- 1993 - Present Reviewer: *American Journal of Medical Genetics, Genetics in Medicine, Journal of Pain, Journal of Child Psychology and Psychiatry, Journal of Intellectual Disabilities Research, American Journal on Mental Retardation, Journal of Behavioral Education, Pain, Clinical Journal of Pain, Educational Researcher, American Journal of Physical Medicine & Rehabilitation, Human Brain Mapping, Psychopharmacology, Development & Psychopathology, Journal of Applied Behavior Analysis, Archives of Physical Medicine and Medical Rehabilitation, Topics in Early Childhood Special Education, Journal of Early Intervention, Alberta Journal of Educational Research, Developmental Medicine and Child Neurology, Journal of Child Neurology, Mental Retardation and Developmental Disabilities Research Reviews, Biological Psychiatry, British Journal of Clinical Psychology, Pain Medicine, Journal of Autism and Developmental Disorders, Behavior & Physiology, Neuropsychopharmacology, Psychological Science, Journal of Special Education, Journal of the Association for Persons with Severe Handicaps, Pain: Research and Management; Clinical Psychological Science, Exceptional Children, Pediatric Pain Letter, Journal of Developmental Disorders, European Journal of Pediatrics, Paul H. Brookes Publishing Co., McGraw Hill Publishing Co.*

### University Service Assignments

- 2015 Member, College Research Associate Deans Committee, UMN
- 2014 Member, Research Excellence 'Cornerstone' Committee, Office of Vice President for Research (OVPR), UMN  
Member, College Research Associate Deans Committee, UMN  
Member, 'Write to Win' Faculty Grant Writing Workshop, College of Education & Human Development, UMN.  
Member, P&T Committee (Ted Christ), Department of Educational Psychology, UMN
- 2013 – 2014 Coordinator, Special Education Programs, Department of Educational Psychology, UMN

- 2012 Member, Steering Committee, Department of Educational Psychology, UMN  
Reviewer, McKnight Land-Grant Professorships, Vice Provost Office, UMN  
Reviewer, McKnight Land-Grant Professorships, Office of Vice President for Research (OVPR), UMN  
Member, Synopsis Committee (Sashank Varma), Department of Educational Psychology, UMN
- 2012 – 2013 CEHD Faculty Finance Committee
- 2010 – 2012 Member, Disabilities Advisory Committee, UMN
- 2009 - 2010 Member, Search Committee for Early Childhood faculty position, Senior Fellow, Center for Early Education and Development, CEHD, UMN  
Reviewer, Minnesota Future's Program, Office of Vice President for Research, UMN
- 2009 – Present Member, Student Grievance Committee, UMN
- 2008 – Present Member, Scientific Advisory Committee, Center for Neurobehavioral Development, UMN
- 2004 – 2014 Coordinator, Doctoral Written Preliminary Examination, Special Education Programs, Department of Educational Psychology, UMN  
Co-coordinator, Pain and Neurobehavioral Development, Spring Colloquia Series, Center for Neurobehavioral Development, UMN
- 2008-2009 Member, Search Committee for Assistant Professor, Department of Speech-Language-Hearing Sciences, College of Liberal Arts, UMN  
Member, Search Committee for Research Associate, Office of Research Consultation and Services, College of Education and Human Development, UMN  
Member, Search Committee for Director, Center for Early Education and Development, College of Education and Human Development, UMN  
Participant, Institute of Child Development, External Review, College of Education and Human Development, UMN
- 2007-2008 Chair, Professor of Practice Search Committee, Special Education Programs, Department of Educational Psychology, UMN
- 2006-2007 Chair, P&A Search Committee, Special Education Programs, Department of Educational Psychology, UMN  
Member, Early Childhood Advisory Committee, College of Education and Human Development, UMN.  
Tenure & Promotion External Review: Dept of Pediatrics, UMN
- 2005-2006 Member, Institute for Child Development Search Committee  
Chair; (X2) P & A Search Committees; Special Education Programs, Department of Educational Psychology, UMN  
Member, Space Committee, Department of Educational Psychology, UMN  
Tenure & Promotion External Review: Dept of Pediatrics, UMN
- 2004-2007 Chair, Synopsis Review Committee (Lesley Craig-Unkefer), Special Education Program, Department of Educational Psychology, UMN.
- 2004-2007 Member, Disabilities Issues Committee, UMN
- 2004-2005 Member, Doctoral Dissertation Research Grant Committee, Graduate School, UMN
- 2004 Member, Human Subjects Research Review Committee, Minnesota Autism Center, Minneapolis, MN.
- 2003-2007 Member, Children, Youth, and Family Consortium (CYFC) Advisory Council, UMN
- 2003-2007 Member, Steering Committee, Department of Educational Psychology, UMN
- 2001-2003 Member, Special Education Doctoral Prelim Committee, Department of Educational Psychology, UMN  
Member, Psychological Foundations (Learning & Cognition) Faculty Search Committee, Department of Educational Psychology, UMN
- 2001-2003 Chair, Graduate Student Research Day, Department of Educational Psychology, UMN

- 2000-2002 Member, Special Education (Developmental Disabilities) Faculty Search Committee, Department of Educational Psychology, UMN
- 1997-2000 Member, Early Autism Inclusion Project Director Search Committee, Member, Ntl Ctr on Early Dev & Learning Critical Periods Conf.Com.  
Member, FPG Seminar Series  
Member, FPG Space Committee  
Frank Porter Graham Child Developmental Center  
UNC at Chapel Hill, Chapel Hill, NC.

## **Student Training**

### ***Ph.D. Students (Role: Advisor & Co-Advisor)***

*Academic Positions:* Chin-Chih Chen (Assistant Professor, Virginia Commonwealth University), Satomi Shinde (Associate Professor, University of Wisconsin), Terry Estrem (Associate Professor, Minnesota State University, St. Cloud), Stacy Danov (Research Associate, Department of Pediatrics, UMN), Laurie Sperry (Associate Professor, University of Colorado, Denver), Jason Wolff (Assistant Professor, Department of Educational Psychology, University of Minnesota), Breanne Byiers (Post-Doctoral Fellow, Leadership Education in Neurodevelopmental Disabilities, Department of Educational Psychology, UMN)

*Clinical/Community Research/Practice:* Tim Moore, Ph.D. - Clinical Director, Specialty Health Systems, Department of Health and Human Services, State of Minnesota, John Hoch, Ph.D. - Research Director, Behavioral Dimensions, Inc., Chantel Barney, Ph.D. - Clinical Scientist, Gillette Children's Specialty Healthcare, John Damerow, M.A. - Informatics Systems Analyst, United Healthcare

*Current:* Adele Dimian, Alyssa Merbler, Kelsey Quest, Stephanie Meyer

### ***Undergraduate Student Training/Supervision***

- 2004 - present Research Experience for Undergraduates (REU) – student supervisor
- 2006-2007 Psychology Honors Thesis Project – Dept of Psychology, UMN - student supervisor
- 2004 Seminar on Psychopharmacology (NSC 8207) – student supervisor.
- 2001-2002 Interdisciplinary Research and Training in Behavior Disorders Practicum Supervisor
- 1999 Applied behavior analysis: Practicum supervisor, Department of Psychology, University of North Carolina at Chapel Hill.
- 1997 Undergraduate senior internship supervisor, Department of Human & Organizational Development, Peabody College, Vanderbilt University.
- 1996-1997 Undergraduate senior honour's project supervisor, Department of Psychology, Faculty of Arts & Science, Vanderbilt University

### ***Graduate and Undergraduate Courses Taught***

- 2004 – present EPSY 8694 (Graduate/Doctoral Seminar) Research Methods in Special Education, Instructor, Department of Educational Psychology, University of Minnesota.
- 2003 EPSY 8300 (Graduate/Doctoral Seminar) Observational Research Methods, Instructor, Department of Educational Psychology, University of Minnesota
- 2002 – present EPSY 8706 (Graduate/Doctoral Seminar) Single Case Experimental Design, Instructor, Department of Educational Psychology, University of Minnesota.
- 2000 – 2004 EPSY 5656 (Graduate) Social and Interpersonal Characteristics of Students with Disabilities, Instructor, Department of Educational Psychology, University of Minnesota.
- 2000 – 2004 EPSY 5616 (Undergraduate). Applied Behavior Analysis and Classroom Management, Instructor, Department of Educational Psychology, University of Minnesota

- 2000 Psychology 109 (Undergraduate) Applied Behavior Analysis, Co-Instructor, Department of Psychology, University of North Carolina at Chapel Hill.
- 1996 Special Education 3900 (Graduate) Seminar; Intervention Research in Mental Retardation, Co-Instructor, Peabody College, Department of Special Education, Vanderbilt University.
- 1995 Psychology. 292 (Undergraduate) Directed Study, Behavior Analysis and Severe Behavior Problems, Co-Instructor, Peabody College, Department of Psychology and Human Development, Vanderbilt University.
- 1993 Special Education. 3210 - (Graduate) Managing Academic and Social Behavior in the Classroom, Co-Instructor, Peabody College, Department of Special Education, Vanderbilt University.

### Community Engagement Activities

#### *Inservices/Workshops/Community Presentations*

- 2015 Symons, F. J. (2015/June). Self-injury in child welfare cases with developmental disability. Minnesota Department of Health, Saint Paul, MN.
- Symons, F. J. (2015/April). *Rett syndrome: Research Directions*. Gillette Rett Syndrome Clinic & the Midwest Rett Syndrome Foundation Family Education Day. Radisson, Bloomington, MN.
- 2014 Symons, F. J. (2014/Sept). Moderator/Discussant: *Pain Beliefs and Direct Staff in Intellectual and Developmental Disabilities*. Webinar (35 registrants, international) for PICH (Pain in Children's Health – a Canadian Institutes of Health Research training grant).
- Symons, F. J. (2014/Jan). Moderator/Discussant: *Biomarkers and pediatric pain*. Webinar (80 registrants, national & international) for PICH (Pain in Children's Health – a Canadian Institutes of Health Research training grant).
- Tervo, R.T. & Symons, F. J. (2014, May). *Self-injury in neurodevelopmental disability*. Pediatric Grand Rounds, Mayo Clinic, Rochester, MN.
- Tervo, R.T. & Symons, F. J. (2014, Nov). *Self-injury in neurodevelopmental disability*. Psychiatry & Psychology Grand Rounds, Mayo Clinic, Rochester, MN.
- 2013 Symons, F. J. & Oberlander, T. F. (2013/Nov). *Pain and intellectual and developmental disabilities: What to do when nothing else works*. Webinar (250 registrants, national & international) for CAPHC (Canadian Association of Pediatric Health Centers).
- Symons, F. J. (2013/May). *Rett syndrome: Research Directions*. Gillette Rett Syndrome Clinic Family Education Day. Gillette Children's Specialty Healthcare, St. Paul, MN.
- Burkitt, C.C., & Symons, F. J. (2013, June). *Pain and Rett syndrome*. Gillette Children's Specialty Care Research Education Day, Gillette Children's, St. Paul, MN.
- Symons, F.J. (2013, Sept). *Functional behavioral assessment of self-injury in intellectual and developmental disabilities*. Workshop at British Columbia Children's Hospital, Vancouver, BC, Canada.
- Symons, F. J. (2013, Sept). *Pain assessment in intellectual and developmental disabilities*. Workshop at British Columbia Children's Hospital, Vancouver, BC, Canada.
- 2012 Burkitt, C.C., Krach, L., Rivard, P., Belew, J., Partington, M., Graupman, P., Petronio, J., Symons, F.J. (2012/March). *Motor function predicts parent-reported spasticity pain in*



- children with cerebral palsy*. Poster presented at the Graduate Student Research Day, University of Minnesota, Minneapolis, MN.
- Symons, F. J. (2012/May). *Rett syndrome: Research Update*. Gillette Rett Syndrome Clinic Family Education Day. Gillette Children's Specialty Healthcare, St. Paul, MN.
- Symons, F. J. (2012/September). *Pain in Children with Significant Neurologic Impairment*. Mayday Foundation, NY.
- Symons, F. J. (2012/October). *Rett Syndrome: Health & Behavior Analysis*. Center for Orphan Drug Research, University of Minnesota, Minneapolis, MN.
- Symons, F. J. (2012/November). *Pain and Developmental Disability Across the Lifespan Conference*. Moderator. Gillette Children's Specialty Healthcare, St. Paul, MN.
- 2011 Burkitt, C.C., Krach, L., Rivard, P., Belew, J., Evenson, J., Schulz, A., Roske, K., Partington, M., Graupman, P., Petronio, J., & Symons, F.J. (2011/May). *GMFCS Predicts Parent-Reported Spasticity Pain in Children with Cerebral Palsy*. Paper presented at the annual Gillette Children's Specialty Healthcare Research Education Day, St. Paul, MN.
- Danov, S.E., Tervo, R., & Symons, F.J. (2011/May). *Differential Effects of an Atypical Neuroleptic on the Form & Function of Problem Behavior*. Scholars Presentations, University of Minnesota.
- Symons, F. J., & Burkitt, C. C. (2011/May). *Pain and Developmental Disorders. Workshop – Continuing Education Behavioral Dimensions, Inc.* Minneapolis, MN.
- Symons, F. J. (2011/May). *Rett Syndrome: Health and Behavior*. Family Research Day – Gillette Children's Specialty Healthcare; Minnesota Rett Syndrome Research Association.
- 2010 Hoch, J., & Symons, F. J. (June). *Observational Methods Workshop*. Summer Workshop Series – Quantitative Methods in Education, University of Minnesota
- 2009 Invited Speaker, *Is Chronic Self-Injury a Chronic Pain Problem?* (March). Research Education Day, Gillette Children's Specialty Healthcare, St. Paul, MN.
- Invited Speaker, *Pain and Developmental Disability* (June). Pain: From Molecules to Treatment (Neuroscience Short Course), University of Minnesota.
- Invited Speaker, Health and Behavior Needs in Rett Syndrome (May). Annual meeting for the Rett Syndrome Parent Research Association. Gillette Children's Specialty Healthcare, St. Paul, MN.
- 2008 Invited Speaker, *Chronic Self-Injury in Neurodevelopmental Disorders: Biobehavioral Perspectives*, (Oct). Minnesota Northland Association for Behavior Analysis, St. Cloud, MN.
- Danov, S.E., Shinde, S., Chen, C., Bodfish, J., & Symons, F. *A comparison of nonverbal pain expression between social and nonsocial SIB cases during a sensory testing protocol*. CEHD Research Day
- 2007 Keynote Speaker Fall Workshop, *Pain and Self-Injury in Intellectual and Developmental Disabilities*, (Sept) Metropolitan Cooperative Services Unit, Saint Paul, MN.
- Invited Inservice Workshop, *An Overview of Issues on Pain and Behavior Problems in Intellectual and Developmental Disabilities*. (Nov.) S-E Low-Incidence Cooperative Services Unit, Rochester, MN.
- Special Education Programs Workshop: *Recognition of self-injurious behavior and pain in kids with developmental disabilities*. Dakota County Technical College. (May). Rosemount, MN.

- Invited Speaker, Minnesota Association of Family and Consumer Sciences Annual Conference (March). *Pain and Developmental Cognitive Disabilities*. Richfield, MN.  
 Guest Lecture, *Biobehavioral Mechanism and Self-Injury in Developmental Disorders*. (Oct.). McGill Centre for Pain Research, McGill University, Montreal, Quebec, Canada.  
 Inservice Workshop (w/Dr. Jennifer McComas): *Evidence and Best Practice in Classroom Management*, Co-Sponsored workshop with UMN Extension and the Southwest Research & Outreach Center and coordinated by the Children, Youth, & Families Consortium and the Center for Neurobehavioral Development.
- 2006 Inservice Workshop, *Pain and Severe Developmental Cognitive Disabilities*, Metropolitan Cooperative Services Unit, Saint Paul, MN.  
 Invited Inservice Workshop, *Self-Injury and Severe Developmental Cognitive Disabilities*, Metropolitan Cooperative Services Unit, Saint Paul, MN.  
 Inservice Workshop: *Introduction to single case experimental design*. Gillette Children's Special Healthcare Research Education Day, Saint Paul, MN.  
 Inservice Workshop: *Single Case Research Designs: Clinical Applications*. Paper presented at Gillette Children's Special Healthcare for the Gillette Pain and Comfort Research Initiative, Saint Paul, MN.  
 Speaker, Pain Mechanisms: From Molecules to Treatment. Joint course offered by the University of Minnesota and the Karolinska Institute, Stockholm, Sweden.
- 2004 Grand Rounds: Department of Child and Adolescent Psychiatry, British Columbia's Children's Hospital.  
 Workshop, Peter Wall Institute for Advanced Studies Interdisciplinary Colloquia, University of British Columbia, Vancouver, Canada.  
 Speaker, (November). *Self-injurious behavior in neurodevelopmental disorders: Gene-brain-behavior relations*. Colloquia at the University of Minnesota Center for Neurobehavioral Development.
- 2003 Speaker, *Autism and Fragile X Syndrome: Research and Clinical Issues*, Minnesota Autism Center.  
 Speaker, *Assessing Pain in Individuals with Developmental Disabilities*. University of Alberta, J.P. Das Developmental Disabilities Center, and Glenrose Rehabilitation Hospital, Edmonton, AB, Canada.  
 Speaker, *Issues Related to Pain and Self-Injurious Behavior in Developmental Disabilities*, Center for Pain Research Colloquia, University of Minnesota.
- 2002 Speaker, *Issues in the Early Identification of Autism*, Ramsey County Early Childhood Special Education Program.  
 Workshop, Peter Wall Institute for Advanced Studies Interdisciplinary Colloquia, University of British Columbia, Vancouver, Canada.  
 Symons, F. J., Hoch, J. Ockjean, K., & Tervo, R. C. (2002, June). *Methylphenidate effects on stereotyped motor and attending behavior in cerebral palsy*. Poster presented at the Gillette Children's Specialty Hospital Research Poster Grand Rounds.  
 Speaker, *New Developments in Observational Software and Applications*, Institute for Child Development Colloquia Series, University of Minnesota
- 1999 Workshop, Self-Injury - National Institutes of Health (NIH), Washington, DC.
- 1998 Workshop, Sequential Analysis - Department of Education (OSEP), Washington, DC.

Discussant, Prader-Willi Program Project (NIH/NICHHD), John F. Kennedy Center, Vanderbilt University, Nashville, TN.

**Academic Consulting**

- 2002 Consultant, Social Behavior and Interventions in Autism (USDE, Maureen Conroy, P.I.)  
Department of Special Education, University of Florida, Gainesville, FL  
Consultant, Frank Porter Graham Child Development Institute, University of North  
Carolina at Chapel Hill, Chapel Hill, NC.
- 2001 Consultant, Institute for Child Development, Kansas University Medical Center, Kansas,  
MO.

**Paid Professional Consulting (discontinued)**

- 1994-1997 Consultant, Nashville Metropolitan School System, Nashville, TN.  
1993-1995 Consultant, Office of Community Services, Tennessee Department of Mental Health and  
Mental Retardation, Nashville, TN.  
1993 Consultant, Comcare Inc, Nashville, TN.  
Workshop, Home Technology Health Care, Nashville, TN.  
1993 Consultant, Rochelle Center, Nashville, TN.

**Publications** (\* designates student/trainee)

**Refereed Articles**

91. Peters, S., Byiers, B., & Symons, F. J. (in press). Diurnal salivary cortisol and regression status in MECP2 Duplication syndrome. *Journal of Child Neurology*.
90. **Symons, F. J.**, Tervo, R. T., Barney, C. Damerow, J., Wendelschafer-Crabb, G., & Kennedy, W. (in press). Is peripheral innervation density a risk factor for SIB in children with global developmental delay? *Journal of Child Neurology*.
89. **Symons, F. J.**, Byiers, B. J., Hoch, J., Dimian, A., Barney, C., Feyma, T., & Beisang, A. (in press). Infrared thermal analysis and individual differences in skin temperature asymmetry in Rett syndrome. *Pediatric Neurology*.
88. Barney, C. Byiers, B., Hoch, J., \*Dimian, A., & **Symons, F. J.** (in press). A case-controlled investigation of pain experience and sensory function in neuronal ceroid lipofuscinosis. *The Clinical Journal of Pain*.
87. Barney, C., Feyma, T., Beisang, A., & **Symons, F. J.** (2015). Pain experience and expression in Rett syndrome: Subjective and objective measurement approaches. *Journal of Physical and Developmental Disabilities*. 10.1007/s10882-015-9427-3.
86. **Symons, F. J.**, Tervo, R. T., Gilles, E., Wendelschafer-Crabb, G., & Kennedy, W. (2014). Skin and self-injury: A possible link between peripheral innervation and immune function? *Developmental Medicine & Child Neurology*. doi: 10.1111/dmcn.12580. [Epub ahead of print]
85. **Symons F.J.**, ElGhazi I, \*Reilly BG, \*Barney CC, Hanson L, Panoskaltis-Mortari A, Armitage IM, Wilcox GL. (2014). Can Biomarkers Differentiate Pain and No Pain Subgroups of Nonverbal

Children with Cerebral Palsy? A Preliminary Investigation Based on Noninvasive Saliva Sampling. *Pain Medicine*. doi: 10.1111/pme.12545.

84. \*Quest, K., \*Byiers, B. J., \*Payen, A., & **Symons, F. J.** (2014). Rett syndrome: A preliminary analysis of stereotypy, stress, and negative affect. *Research in Developmental Disabilities*. 35(5):1191-7. doi: 10.1016/j.ridd.2014.01.011.
83. \*Byiers, B. J., \*Dimian, A., & **Symons, F. J.** (2014). Functional communication training in Rett Syndrome: A preliminary study. *American Journal of Intellectual and Developmental Disabilities*. 119(4):340-50. doi: 10.1352/1944-7558-119.4.340.
82. Johnson, L.D., Wehby, J.H., **Symons, F.J.**, Moore, T.C., Maggin, D.M., & Sutherland, K.S. (2014). An analysis of preference relative to teacher implementation of intervention. *Journal of Special Education*. Vol. 48(3) 214–224, DOI: 10.1177/0022466913475872
81. Hoch, J., \*Sng, S., & **Symons, F. J.** (2013). Sequential analysis of autonomic arousal and self-injurious behavior. *American Journal of Intellectual and Developmental Disabilities*, Nov;118,:435-46. doi: 10.1352/1944.7558-118.6.435.
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- Symons, F. J. (1996). [Book Review] "Get a lifestyle". A review of communication-based intervention for problem behavior: A user's guide for producing positive change. *Research in Developmental Disabilities, 17*, 95-98
- Symons, F. J. (1994) [Book Review] Is pedagogy still a dirty word? A review of B. F. Skinner's legacy in education. *Alberta Journal of Educational Research, 40*, 389-392.
- Symons, F. J. (1993) [Book Review] Instructional environments for learners with severe handicaps. *Exceptionality Canada, 3*, 81-82,
- Symons, F. J. (1992) [Book Review] Educational psychology; Canadian perspectives. *Canadian Journal of School Psychology, 9*, 129-130.

***Editorials, Reader Response/Commentaries, Research Reports, Newsletters & Related Periodical Outlets***

- Byiers, B. J., T. J. Feyma, and F. J. Symons (2014). Infrared Thermal Analysis and Autonomic Function in Rett Syndrome. In *Annals of Neurology*, vol. 74, pp. S165-S165. Wiley-Blackwell: NJ.
- Symons, F. J., & Roberts, J. E. (2014). Biomarkers, behavior, and intellectual and developmental disabilities. Guest Editors: Special Issue. *American Journal of Intellectual and Developmental Disabilities*. Nov;118(6):413-5. doi: 10.1352/1944-7558-118.6.413.
- Byiers, B., Dimian, A., McComas, J. J., & Symons, F. J. (2014). Effects of positive and negative reinforcement in a concurrent operants arrangement on compliance and problem behavior. *Acta de Investigacion Psicologica, 4*, 1758-1772.
- Byiers, B. J., & Symons, F. J. (2013). The need for unbiased cognitive assessment in Rett syndrome: Is eye tracking the answer? *Developmental Medicine and Child Neurology*. Apr;55(4):301-2. doi: 10.1111/dmcn.12088.
- Symons, F. J., Devine, D. P., & Oliver, C. (2012, May). Self-injurious behavior in people with intellectual disability (p.421-426). Guest Editors. Special Issue. *Journal of Intellectual Disability Research, 56*, 421 – 565.
- Symons, F. J. (2012, January). Pain and challenging behavior: Implications for autism and applied behavior analysis. *ABAI-Autism Conference Paper*.
- Symons, F. J. (2007, October). An overview of the problem of pain and self-injury in intellectual disabilities. *CEMTGC-DI-TED – Montreal, Quebec*.
- Symons, F. J. (2007, September). Putting research into practice: When and how to use single subject design. *Gillette Children's Specialty Healthcare Research Review, 6*, 1-2.
- Symons, F. J. (2006, December). Pain and self-injury in children with disabilities. *Check Up: A Newsletter for the Studies of Pain in Children with Special Needs*.
- Rivard, P., & Symons, F.J. (2004/5, Winter). Pain, cerebral palsy and botulinum toxin. *Gillette Children's Specialty Healthcare Research Review*.

- Bodfish, J. W., Harper, V. N., Deacon, J. R. & Symons, F. J. (2001). Identifying and measuring pain in persons with developmental disabilities: A manual for the Pain and Discomfort Scale (PADS). *Western Carolina Center Research Reports*.
- Symons, F. J. (2001, Spring). Self-Injury as alternative communication: Bridging behavior and biology. Special Interest Group 12 Newsletter. *American Speech Language and Hearing Association* [Refereed].
- Clark, R. D., & Symons, F. J. (2000). Fragile X syndrome. *The Developmental Disabilities Research Digest*, 1.
- Bodfish, J. W., Symons, F. J., & Lewis, M. H. (1999). The Repetitive Behavior Scales. *Western Carolina Center Research Reports*.
- Symons, F. J. (1999). Self-injury and sleep disorders. *The Developmental Disabilities Research Digest*, 1.
- Symons, F. J. (1997). Interdisciplinary crossroads: The brain and severe behavior problems. *Kennedy Center News*, 37.

#### **Media/UMNews**

- [http://www1.umn.edu/umnnews/Feature\\_Stories/Selfinjury\\_how\\_and\\_if\\_pain\\_is\\_perceived.html](http://www1.umn.edu/umnnews/Feature_Stories/Selfinjury_how_and_if_pain_is_perceived.html)  
<http://www.cehd.umn.edu/people/profiles/symons/>  
<http://cehdvision2020.umn.edu/cehd-blog/struggling-with-self-injury/>

#### **Plenary, Keynote, and Invited Addresses and Colloquia**

- Symons, F. J. (2015/February). *Self-injurious behavior: From behavior to biology, and back to behavior, again*. Invited plenary presented at the annual North Carolina Association for Behavior Analysis Conference, Asheville, NC.
- Symons, F. J. (2014/June). *Self-Injury and developmental disorders – Are the risk factors we talk about really risk factors?* Distinguished Science Speaker Series. Kennedy Krieger Institute, Johns Hopkins Medical School, Baltimore, MD.
- Symons, F. J. (2014/March). *Using the Science of Pain to Transform our Understanding of Self-Injury: Behavior Meets Biology at the Skin (and Other Stories)*. Invited presenter for the NICHD Interdisciplinary Training Conference on Developmental Disabilities, Chicago, IL.
- Symons, F. J. (2013/September). *Self-Injurious Behavior in Intellectual and Developmental Disabilities: How Well Do We Understand Risk and Vulnerability?* Invited plenary presented at the British Columbia Children's Hospital (Derrick Smyth Lecture, Department of Child Psychiatry). Vancouver, British Columbia, Canada.
- Symons, F. J. (2012/October). *Self-Injurious Behavior: Behavior Meets Biology at the Skin*. Invited plenary presented at the annual Midwest Association for Behavior Analysis, Minneapolis, MN.
- Symons, F. J. (2012/January). *Pain and Challenging Behavior: Implications for Applied Behavior Analysis*. Invited keynote presented at the annual Autism Conference: Association for Behavior Analysis International, Philadelphia, PA.

- Symons, F. J. (2011/November). *Using the Science of Pain to Unravel the Mystery of Self-Injury*. Invited colloquium, Department of Special Education, Peabody College, Vanderbilt University.
- Symons, F. J. (2011/September). *Self-Injury, Skin, and Saliva: Translating Pain Mechanisms to Solve the Problem of Self-Injury in Intellectual and Developmental Disabilities*. Invited colloquia presented at the Department of Oral Biology and Dentistry, McGill University, Montreal, Canada.
- Symons, F. J., (2011/April). *Self-Injury, Pain, and Sensory Mechanisms in Neurodevelopmental Disorders*. Invited plenary presented at Elizabeth A. Connelly Memorial Conference, Staten Island, NY.
- Symons, F. J. (2009/Oct). *Pain and Children with Severe Neurodevelopmental Disorders: An Update on Assessment Issues*. Invited colloquia, St. Amant Center, School of Nursing, University of Manitoba, Winnipeg, MB Canada.
- Symons, F. J. (2009/August). *Self-injury: Behavioral and sensory mechanisms*. Invited colloquia presented at the annual Wisconsin Association for Behavior Analysis conference, Madison, WI.
- Symons, F. J. (2009/May). *Pain in individuals with intellectual and developmental disabilities*. Invited symposium (Chair) presented at the Annual Meeting of the American Pain Society. San Diego, CA.
- Symons, F. J. (2007/Oct). Keynote Speaker, CEMTGC Symposium. *State of the Science in Pain and Behavior Disorders in Developmental Disorders*. Montreal, Quebec, Canada.
- Symons, F. J. (2007/Oct). *Self-Injurious Behavior in Neurodevelopmental Disorders*. Invited colloquium, Department of Psychology, University of Manitoba, Winnipeg, Manitoba, Canada.
- Symons, F. J. (2006, November). *Biobehavioral analysis of self-injury: Pain and stress mechanisms*. Invited colloquium at the Waisman Center, University of Wisconsin – Madison.
- Symons, F. J. (2006, October). *Pediatric pain and developmental disabilities*. Invited Symposium Chair. International Forum on Pediatric Pain, White Point, NS, Canada
- Symons, F. J. (2004, October). *Biobehavioral analysis of self-injurious behavior*. Invited colloquium at the University of Kansas Scheifelhush Lifespan Institute.
- Symons, F. J. (2002, July). *Pain and developmental disabilities*. Invited paper presented at the 4<sup>th</sup> Annual Agenesis of the Corpus Callosum (ACC) Conference, Minneapolis, MN.
- Symons, F. J. (2002, July). *Self-injurious behavior: Early developmental and neurobiological mechanisms*. Invited paper at the Peter Wall Institute for Advanced Studies Interdisciplinary Colloquia, University of British Columbia, Vancouver, Canada.
- Symons, F. J., (2001, February). *Self-injurious behavior: Pain expression, skin temperature, and salivary substance P*. Invited colloquium at the Institute for Child Development at Kansas University Medical Center, Kansas, MO.
- Symons, F. J., Seigler, B., Garfinkle, A., & Wolery, M. (2000, February). *Variability and stability of engagement, interaction, and repetitive behavior in young children with autism*. Invited paper

presented at the North Carolina Association for Behavior Analysis Annual Conference, Asheville, NC.

Symons, F. J. (2000, January). *Self-injurious behavior and pain in developmental disabilities*. Invited paper presented at the Millcroft Inn Symposia on Pain and Neurologic Impairment, Toronto, Canada.

Symons, F. J. (1999, December). *Pain and self-injury*. Invited paper presented at Self Injurious Behavior Workshop, National Institute of Child Health and Human Development, Washington, DC.

Symons, F. J. (1998, October). *Opioid & communicative mechanisms in self-injury*. Invited paper presented at the Annual Conference of the American Association of University Affiliated Programs. Washington, DC.

Symons, F. J. (1998, September). *Self-injurious behavior: Quantifying change & the quality of our outcomes*. Invited paper presented at the North Carolina American Association on Mental Retardation Conference, Greensboro, NC

Symons, F. J. (1997, March). *Applications of bar code observational technology in special education classrooms*. Invited paper presented at the Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Riverside, CA.

Symons, F. J. (1996, April). *Psychobiological analysis of self-injury in autism and mental retardation*. Invited paper presented at the Annual Meeting of the Southern Society for Philosophy and Psychology. Nashville, TN.

### Conference Presentations & Proceedings

Byiers, B. J., Payen, A., & **Symons, F.** (April, 2015). *Diurnal cortisol cycles in MECP2-related syndromes*. Poster presented at the annual NICHD Gatlinburg Conference on Research and Theory on Intellectual and Developmental Disabilities, New Orleans, LA.

Dimian, A.F., MacLean, W.E., Tervo, R.T., & **Symons, F.J.** (April, 2015). *Topographies of self-injurious behavior and stereotypy in young children with and without global developmental delays*. Poster presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, New Orleans, LA.

Barney, C.C., Tervo, R., & **Symons, F.J.** (April, 2015). *Comparing Cutaneous Sensory-Tactile Reactivity between Children with and without Global Developmental Delay*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, New Orleans, LA.

**Symons, F.J.**, Barney, C.C., Roiko, S.A., Schwantes, S., Belew, J.L., Panoskaltis-Mortari, A. (April, 2015). *Characterizing Inflammatory Mediators in the Saliva and Cerebral Spinal Fluid of Children and Adolescents with Cerebral Palsy*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, New Orleans, LA.

Barney, C.C., Quest, K., Merbler, A., Erickson, L., Feyma, T., Beisang, A., & **Symons, F.J.** (April, 2015). *A comparison of post-operative analgesic dosing between girls with Rett syndrome and girls with and without developmental disability undergoing spinal fusion surgery*. Poster presented at the



annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, New Orleans, LA.

Meyer, S.S., Barney, C.C., Merbler, A., Quest, K., Byers, B.J., & **Symons, F.J.** (April, 2015). *Sensory testing and sensory experiences in Rett syndrome: comparisons between parent report and direct observation*. Poster presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, New Orleans, LA.

Symons, F.J., & Thompson, T. (March, 2015). *Hyperalgesia, inflammation, and immune mechanisms and self-injury in intellectual and developmental disabilities*. Paper presented at the Society for Behavior Pharmacology annual meeting, Boston, MA.

Thompson, T., & Symons, F. J. (March, 2015). *Opioid mechanisms and self-injurious behavior in intellectual and developmental disabilities*. Paper presented at the Society for Behavior Pharmacology annual meeting, Boston, MA.

Byiers, B. J., Peters, S. U., & Symons, F. J. (October, 2014). *Aggression and self-injury in Rett and Rett Duplication Syndromes*. Poster presented at the Society for the Study of Behavioral Phenotypes (SSBP) Annual Meeting, NY, NY.

Barney, C.C., Roiko, S.A., Schwantes, S., Belew, J.L. & Symons, F.J. (October, 2014). *Characterizing Inflammatory Mediators in the Saliva and Cerebral Spinal Fluid of Children and Adolescents with Cerebral Palsy*. Poster presented at the 15th World Congress on Pain, Buenos Aires, Argentina.

Barney, C.C., Tervo, R. & Symons, F.J. (October, 2014). *Comparing Cutaneous Sensory-Tactile Reactivity between Children with and without Global Developmental Delay*. Poster presented at the 15th World Congress on Pain, Buenos Aires, Argentina.

Symons, FJ, Barney, C., Schwantes, S., Belew, J., Roiko, S., Katoch, R., Ehrhardt, M., Panoskaltis-Mortari, A., & Wilcox, G. (2014, May). *Pain and neurodevelopmental disorders: Analgesic failure and the promise of biomarkers*. Paper presented at the annual Canadian Pain Society, Quebec City, Quebec, Canada.

Byiers, B. J., Dimian, A., Symons, F. J. (June 2014). *Functional communication assessment and intervention in Rett syndrome*. Poster presented at the International Rett Syndrome Foundation Annual Scientific Symposium, Chantilly, VA.

Merbler, A., Hoch, J., Byiers, B. J., Quest, K., Spofford, L., Barney, C. & Symons, F. J. (June, 2014). *Indices of heart rate variability in Rett syndrome – comparisons with MecP2 duplication*. Poster presented at the International Rett Syndrome Foundation Annual Scientific Symposium, Chantilly, VA.

Byiers, B. J., Peters, S. U., & Symons, F. J. (March, 2014). *Aggressive and self-injurious behaviors in the behavioral phenotypes of MECP2-related syndromes*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory on Intellectual and Developmental Disabilities, Chicago, IL.

Dimian, A., Tervo, R. C., & Symons, F. J. (March, 2014). *Early Self-Injury in a Clinical Cohort of Young Children with Global Developmental Delay*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory on Intellectual and Developmental Disabilities, Chicago, IL.

- Symons, F. J., Tervo, R. C., Panoskaltis-Mortari A., Ehrhardt, M., Damerow, J., Barney, C., & Wilcox G., (March, 2014). *Immune-Related Inflammatory Salivary Biomarkers and Self-Injury*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory on Intellectual and Developmental Disabilities, Chicago, IL.
- Barney, C., Erickson, L., Feyma, T., Beisang, A., & Symons F. J. (October/2013). *Pain Behavior in Rett syndrome (RTT)*. Poster presented at the bi-annual International Forum on Pediatric Pain, White Point, Nova Scotia, Canada.
- Byiers, B. J., Dimian, A. & Symons, F. J. (March/2013). *Functional Communication Training in Rett Syndrome*. Poster presented at the annual Minnesota Northlands Association for Behavior Analysis Annual Conference, Minneapolis, MN.
- Byiers, B. J., Dimian, A., Moore, T., McComas, J., & Symons, F. (May/2013). *Decreasing self-injurious behavior using empirically identified environmental stimuli*. Paper presented at the annual Association for Behavior Analysis International Conference, Minneapolis, MN.
- Byiers, B. J., Moore, T., McComas, J., Dimian, A., & Symons, F. (May/2013). *Using a progressive-ratio schedule to determine favorable conditions for compliance in a child with autism*. Paper presented at the annual Association for Behavior Analysis International Conference, Minneapolis, MN.
- Simacek, J., Byiers, B., Moore, T., McComas, J., & Symons, F. (May/2013). *The influence of idiosyncratic stimuli on self-injurious behavior*. Paper presented at the annual Association for Behavior Analysis International Conference, Minneapolis, MN.
- Symons, F. J., Hoch, J., Byiers, B. J., Erickson, L., Feyma, T., & Beisang, A. (March/2013). *Infrared thermal analysis and autonomic function in Rett syndrome*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Barney, C., Erickson, L., Feyma, T., Beisang, A., & Symons, F.J. (March/ 2013). *Pain Behavior in Rett syndrome: Signs & Symptoms*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Lacoste, A., Byiers, B. J., Hoch, J., Ehrhardt, M. J., Panoskaltis-Mortari, A., & Symons, F. J. (March/2013). *Rett Syndrome and Hypothalamic-Pituitary-Adrenal (HPA) Axis Function*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Quest, K., Byiers, B. J., Lacoste, A., & Symons, F.J. (March/2013). *Rett Syndrome: Stress, Stereotypy and Negative Affect*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Byiers, B. J., Dimian, A., & Symons, F. J. (March/2013). *Functional Communication Training in Rett Syndrome*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.

- Dimian, A., Byiers, B. J., & Symons, F.J. (March/2013). *Rett Syndrome and Functional Behavior Assessment*. Paper presented at the annual NICHD Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Byiers, B. J., Moore, T., McComas, J., & Symons, F. J. (January/2013). *Choice assessment of multiply-maintained severe problem behavior*. Poster presented at the annual Association for Behavior Analysis Autism Conference, Portland, OR.
- Byiers, B. J., Dimian, A., Moore, T., McComas, J., & Symons, F. J. (October/2012). *Identification of stimuli associated with automatically maintained self-injurious behavior*. Poster presented at the annual Mid-American Association for Behavior Analysis conference, Minneapolis, MN
- Dimian, A.F., Byiers, B.J., & Symons, F.J. (2012/October). *Using functional analysis to test whether idiosyncratic and challenging behavior in Rett syndrome is sensitive to social reinforcement contingencies*. Poster presented at the annual Mid-American Association for Behavior Analysis Conference, Minneapolis, MN.
- Lacoste, A., Byiers, B.J., Moore, T., McComas, J., & Symons, F.J. (October/2012). *The influence of idiosyncratic antecedent stimuli on self-injurious behavior*. Poster presented at the annual Mid-American Association for Behavior Analysis conference, Minneapolis, MN.
- Dimian, A.F., Byiers, B.J., & Symons, F.J. (September/2012). *Using functional analysis to test whether idiosyncratic and challenging behavior in Rett syndrome is sensitive to social reinforcement contingencies*. Poster presented at the Minnesota Northland Association for Behavior Analysis Conference, Maple Grove, MN.
- Lacoste, A., Byiers, B.J., Moore, T., McComas, J., & Symons, F.J. (September/2012). *The influence of idiosyncratic antecedent stimuli on self-injurious behavior*. Poster presented at the Minnesota Northlands Association for Behavior Analysis conference, Maple Grove, MN.
- Symons, F.J., ElGhazi, I., Reilly, B.G., Burkitt, C., Mortari-Panoskaltis, A., Armitage, I.M., & Wilcox, G. L. (July/2012). *Pain biomarkers and children with developmental disability: Salivary hormones and metabolites differentiate pain and no-pain subgroups of children with cerebral palsy*. Poster presented at the World Congress of the International Association for the Scientific Study of Intellectual Disability, Halifax, NS, Canada.
- Byiers, B. J., Dimian, A., Erickson, L., Beisang, A., Feyma, T., & Symons, F. J. (June/2012). *Functional communication intervention in Rett syndrome*. Poster presented at the 7th World Congress on Rett Syndrome, New Orleans, LA.
- Symons, F.J., Hoch, J., Byiers, B., Barney, C., Erickson, L., Feyma, T., & Beisang, A. (June/2012). *Infrared thermal analysis and autonomic function in Rett syndrome*. Paper presented at the 7<sup>th</sup> World Congress on Rett Syndrome, New Orleans, LA.
- Moore, T. R., Tervo, R. C., Gilles, E., & Symons, F. J. (May/2012). *Functional analysis of self-injurious behavior in an 18-month old child with TBI*. Poster presented at the biennial Pediatric Neurosciences Conference of Gillette Children's Specialty Healthcare, Minneapolis, MN.
- Ng, R. Hoch, J., Dimian, A., Byiers, B. J., Lacoste, A., & Symons, F. J. (June 2012). *Arousal and communicative behavior: A preliminary analysis in Rett syndrome*. Poster presented at the Gillette

- Childrens' Specialty Healthcare Third Biennial Pediatric Neuroscience Conference, Minneapolis, MN.
- Byiers, B. J., Dimian, A., Erickson, L., Beisang, A., Feyma, T., & Symons, F. J. (May, 2012). Functional communication intervention in Rett syndrome. Poster presented at the at the biennial Pediatric Neurosciences Conference of Gillette Children's Specialty Healthcare, Minneapolis, MN.
- Spofford, L., Moore, T, Dimian, A., Symons, F. J. (April/2012). *Functional assessment of self-injury in a traumatic brain injury case*. Presented at the 1st annual Minnesota Northland Association for Behavioral Analysis Data Blitz, Maple Grove, MN.
- Symons, F. J., Tervo, R., Burkitt, C., Damerow, J., Suski, E., McAdams, B., Foster, S., Wendelschafer-Crabb, G., & Kennedy, W. (March/2012). *Peripheral innervation in children at risk for SIB*. Paper presented at the annual Gatlinburg Conference on Intellectual and Developmental Disabilities, Annapolis, MD.
- Burkitt, C.C., Hoch, J., Byiers, B., Dimian, A., Symons, F.J. (2012/March). *Pain and sensory function in neuronal ceroid lipofuscinosis*. Poster presented at the annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Symons, F.J., ElGhazi, I., Reilly, B.G., Burkitt, C., Mesaros, M., Mortari-Panoskaltis, A., Armitage, I.M., & Wilcox, G. L. (October/2011). *Salivary metabolites differentiate pain and no-pain subgroups of children with cerebral palsy*. Poster presented at the bi-annual International Forum on Pediatric Pain, White Point, NS, Canada.
- Burkitt, C., Krach, L., Rivard, P., Belew, J., & Symons, F. J. (October/2011). *GMFCS predicts parent-reported spasticity pain in children with cerebral palsy*. Poster presented at the bi-annual International Forum on Pediatric Pain, White Point, NS, Canada.
- Symons, F. J., Byiers, B. J., Tervo, R. C., & Beisang, A. (June/2011). *Parent reported pain and Rett syndrome*. Poster presented at the annual American Association for Intellectual and Developmental Disabilities Annual Conference, St. Paul, MN.
- Byiers, B. J., Tervo, R. C. & Symons, F. J. (June/2011). *Parenting stress and Rett syndrome*. Paper presented at the 2011 American Association for Intellectual and Developmental Disabilities Annual Conference, St. Paul, MN.
- Burkitt, C.C., Symons, F.J. (2011/June). *Examination of Pain Thresholds in Individuals with Intellectual and Developmental Disabilities*. Poster presented at the annual American Association of Intellectual and Developmental Disabilities conference, St. Paul, MN.
- Byiers, B. J., Tervo, R. C. & Symons, F. J. (March, 2011). *Communication modes and interpretability in Rett syndrome*. Poster presented at the 2011 Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Antonio, TX.
- Moore, T. R., & Symons, F. J. (2011/March). *Adherence to Treatment in a Behavioral Intervention Curriculum: The Effects of Parent Perception*. Poster presented at the annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, San Antonio, TX.
- Symons, F. J., Harper, V., Shinde, S. K., Clary, J., & Bodfish, J. W. (2011, Oct). *Evaluating a sham-controlled sensory testing protocol for non-verbal adults with neurodevelopmental disorders: Self-*

*injury and gender effects*. Paper presented at the International Association for the Scientific Study of Intellectual Disability (Europe). Rome, Italy.

Symons, F. J. (2011, Oct). *Psychosocial and Biomedical Issues and Pain in Intellectual Disability*. Symposium Chair. Symposium presented at the International Association for the Scientific Study of Intellectual Disability (Europe). Rome, Italy.

Symons, F. J., Wendelschafer-Crabb, G., Kennedy, W., Gilles, E., & Bodfish, J. W. (2010/May). *Epidermal nerve fiber morphology, neuropeptide content, and immune activity in children with self-injurious behavior and neurodevelopmental disorders*. Poster presented at the annual Canadian Pain Society conference, Calgary, AB, Canada.

Johnson, L., Wehby, J., & Symons, F. (2010, April). *Social validity, treatment integrity, and the use of evidence-based classroom management programs*. Paper presented at the annual Conference for the Council of Exceptional Children. Nashville, TN.

Symons, F. J., Wendelschafer-Crabb, G., Kennedy, W., Gilles, E., & Bodfish, J. W. (2010/March). *Self-injury & evidence for peripheral neuro-immune interaction*. Paper presented at the 43rd Annual Gatlinburg Conference on Research & Theory in Intellectual and Developmental Disabilities. Annapolis, MD.

Devine, D., & Symons, F. J. (2010/March). Symposium Co-Chairs: *Behavioral and biological frontiers in the analyses of self-injurious behavior*. Symposium at the 43<sup>rd</sup> annual Gatlinburg Conference on Research & Theory in Intellectual & Developmental Disabilities, Annapolis, MD.

Wolff, J.J., Stone, L.S., Lim, T., Bodfish, J.W., & Symons, F.J. (2010/March). *Salivary biomarkers of HPA and SAM systems in adults with self-injurious behavior and neurodevelopmental disorders*. Poster presented at the 43rd annual Gatlinburg Conference on Research & Theory in Intellectual & Developmental Disabilities: Annapolis, MD.

Byiers, B. J., Raspa, M., Bishop, E., Bailey, D. B., & Symons, F. J. (2010, March). *Self-injurious behavior and fragile X syndrome: Findings from the National Fragile X survey*. Poster presented at the 43rd annual Gatlinburg Conference on Intellectual and Developmental Disabilities, Annapolis, MD.

Danov, S.E., Tervo, R., & Symons, F.J. Danov, S.E., Tervo, R., & Symons, F.J. (2010/March). *Differential effects of an atypical neuroleptic on the form & function of problem behavior*. Poster presented at the 43rd annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.

Danov, S.E., McComas, J., & Symons, F.J. (2010/January). *Evaluation of two types of delay of reinforcement cues for behavior maintained by escape from a demand*. Poster presented at the Association for Behavior Analysis International Autism Conference, Chicago, IL.

Symons, F. J. (2009/May). *Self-injurious behavior in neurodevelopmental disorders: Is it an immune-mediated chronic pain problem?* Paper presented the Annual Meeting of the American Pain Society. San Diego, CA.

Hoch, J., & Symons, F. J. (2009/April). *Stress and autonomic arousal as predictors of intervention outcome in an inner-city therapeutic preschool*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Denver, CO.

Shinde, S., Danov, S., Chen, C., Bodfish, J. W., & Symons, F. J. (2009/June). *Evaluation of comparison of two methods of measuring pain in individuals with developmental disabilities*. Paper presented at the American Association for Intellectual and Developmental Disabilities annual conference, New Orleans, LA.

Hoch, J., Tervo, R., Tervo, M., MacLean, W., & Symons, F. J. (2009/March). *Preliminary analysis of self-injury among a consecutive community cohort of children at risk for intellectual and developmental disability*. Poster presented at the 42nd annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, New Orleans, LA.

Moore, T. R., Danov, S., & Symons, F. J. (2009/March). *Evaluating the function of self-injurious behavior in relation to structural variables*. Poster presented at the 42nd annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, New Orleans, LA.

Symons, F.J. Wendelschafer-Crabb, G., Gilles, E., Ioanna Panoutsopoulou, Kennedy, W., & Bodfish, J. W. (2008/October). *Epidermal nerve fiber morphology and neuropeptide content in children with self injurious behavior and neurodevelopmental disorders*. Poster presented at the International Forum on Pediatric Pain, White Point, NS, Canada.

Hoch, J., Moore, T., McComas, J. J., & Symons, F. J. (2008/March). *Arousal and activity choice: An autonomic and behavioral analysis*. Poster presented at the 34<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, San Diego, CA.

Danov, S. Bodfish, J.W., & Symons, F. J. (2008/March). *A comparison of nonverbal pain expression between social and nonsocial SIB cases during a sensory testing protocol*. Poster presented at the 41st annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, San Diego, CA

Moore, T., & Symons, F. J. (2008). *Adherence to behavioral and medical treatment recommendations by parents of children with autism spectrum disorders*. Poster presented at the 41<sup>st</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities, San Diego, CA.; the annual conference of the Association for Behavior Analysis International, Chicago, IL; and the first annual conference of the Wisconsin Association for Behavior Analysis, Kenosha, WI.

Moore, T., McComas, J., & Symons, F. J. (2008/May). *Using cumulative record data presentation to inform treatment after disruption during establishing operation presentation within a functional analysis*. Presented at the annual conference of the Association for Behavior Analysis International, Chicago, IL.

Danov, S.E., Hartman, E., McComas, J., & Symons, F. (2008/May). *Evaluation of two communicative response modalities during functional communication intervention for a young child with autism and self-injurious behavior*. Poster presented at the 34th Annual Association for Behavior Analysis International, Chicago, IL.

Moore, T., Tervo, R. C., McComas, J. J., & Symons, F. J. (2007/May). *Functional analysis of problem behavior in the context of an atypical antipsychotic medication switch*. Poster presented at the 33rd Annual Association for Behavior Analysis, San Diego, CA.

- Symons, F. J. (2007/March). *Symposium: Bio-behavioral Analysis of Self-Injurious Behavior* (Chair). Symposium at the 40<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities. Annapolis, MD.
- Symons, F.J., Wendelschafer-Crabb, G., Gilles, E., Kennedy, W., & Bodfish, J. W. (2007/March). *A comparison of epidermal morphology and physiology between SIB and control cases*. Paper presented at the 40<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities. Annapolis, MD.
- Hoch, J., Tarvainen, M., & Symons, F. J. (2007/March). *Integrating autonomic arousal into functional behavioral analysis of self-injury*. Paper presented at the 40<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities. Annapolis, MD.
- Chen C., Clary J., Parker, D., Harper, V., Bodfish, J. W., & Symons, F. J. (2007/March). *A comparison of the frequency, location, and function of self-injurious behaviors between high and low intensity SIB cases*. Paper presented at the 40<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities. Annapolis, MD.
- Danov, S., Shinde, S., Chen, C., Clary, J., Harper, V., Parker, D., Bodfish, J. W., & Symons, F. J. (2007, March). *A comparison of the frequency of nonverbal behavior indices of pain expression between SIB and control cases during sensory testing*. Paper presented at the 40<sup>th</sup> annual Gatlinburg Conference on Research and Theory in Intellectual & Developmental Disabilities. Annapolis, MD.
- Shinde, S. K. & Symons, F. J. (2007/May). *Educator perceptions and ratings of pain in school-age children with mental retardation and developmental disabilities*. Poster presented at American Association on Mental Retardation, Atlanta, GA.
- Gilles, E., Hartmann, E., Danov, S., McComas, J., & Symons, F. J. (2006, October). *Self-injury and pain: The relation between intracranial pressure and self-injurious behavior*. Paper presented at the International Forum on Pediatric Pain, White Point, NS, Canada.
- Hoch, J., Someki, F., Moore, T., McComas, J.J., Tarvainen, M. & Symons, F.J. (2006, October). *The correspondence between problem behavior and cardiac measures during classroom-based functional behavioral analyses*. Poster presented at the Society for Psychophysiological Research 46<sup>th</sup> Annual Meeting, Vancouver, BC, Canada.
- Hoch, J., McComas, J.J. & Symons, F.J. (2006, July). *Functional behavioral analysis of aggression using direct observation*. Paper presented at the 17<sup>th</sup> Bi-annual World Meeting of the International Society for Research on Aggression, Minneapolis, MN.
- Johnson, L., McComas, J. J., & Symons, F. J. (2006, July). *Functional analysis of aggression of a child with autism toward his infant sibling*. Paper presented at the 17<sup>th</sup> Bi-annual World Meeting of the International Society for Research on Aggression, Minneapolis, MN.
- Symons, F. J., Rivard, P. F., Nugent, A., & Tervo, R. T. (2006, June). *Parent reported satisfaction with spasticity treatment for spasticity using botulinum toxin type A*. Poster presented at the 7<sup>th</sup> International Symposium on Pediatric Pain, Vancouver, BC, Canada.
- Rivard, P. F., Nugent, A., & Symons, F. J. (2006, June). *Parent rated pain pre/post botulinum toxin type A treatment for spasticity in children with cerebral palsy*. Poster presented at the 7<sup>th</sup> International Symposium on Pediatric Pain, Vancouver, BC, Canada.

- McComas, J. J., Tarasenko, M., Holton, E. M., Hartman, E., & Symons, F. J. (2006, May). *Teacher responsivity to aggressive and prosocial behavior of male and female high aggressors in preschool*. Paper presented at the 32<sup>nd</sup> Annual Association for Behavior Analysis, Atlanta, GA.
- Hartmann, E. C., McComas, J. J., Chen, C. C., & Symons, F. J. (2006, May). *The effects of continuous and intermittent reinforcement schedules on the persistence of self-injury and mands*. Paper presented at the 32<sup>nd</sup> Annual Association for Behavior Analysis, Atlanta, GA.
- Hartmann, E. C., Gilles, E., McComas, J. J., Danov, S. E., & Symons, F. J. (2006, May). *The effects of intra-cranial pressure on the functional analysis of self-injurious behavior*. Paper presented at the 32<sup>nd</sup> Annual Association for Behavior Analysis, Atlanta, GA.
- Symons, F. J., Moore, T., McComas, J. J., Hartman, E. C., & Hoch, J. (2006, May). *Calculating contingencies in natural environments*. Paper presented at the 32<sup>nd</sup> Annual Association for Behavior Analysis, Atlanta, GA.
- Symons, F. J. (2006, March). *Subtypes of self-injurious behavior: Classification based on nonverbal pain signs*. Paper presented at the 39<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Diego, CA.
- Symons, F. J., & Danov, S. E. (2005, October). *Pain behavior and self-injurious behavior in developmental disabilities*. Poster presented at the 14<sup>th</sup> Annual St. Amant Conference on Developmental Disabilities, Winnipeg, MB, Canada.
- Tervo, R. C., & Symons, F. J. (2005, September). *Parent report of pain behavior in ambulatory children with cerebral palsy*. Paper presented at the 59<sup>th</sup> Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine. Orlando, FL.
- Petursdottir, A., McComas, J. J., Reichle, J., Morgan, T., & Symons, F. J. (2005, May). *Concurrent schedules: Using immediacy of reinforcement to bias responding towards use of a communicative device*. Poster presented at the 31<sup>st</sup> Annual Association for Behavior Analysis Convention, Chicago, IL.
- Symons, F. J., Wendelschafer-Crabb, G., Kennedy, W., Hardrict, R., Dahl, N., Bodfish, J. W. (2005, March). *A preliminary study of epidermal nerve fibers and self-injury*. Poster presented at the 38<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Hoch, J., Dahl, N., Hartman, E., & Symons, F. J. (2005, March). *Matching law analysis and sequential analysis of appropriate and inappropriate behavior in developmental disabilities*. Poster presented at the 38<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Symons, F. J. (2004, December). *Self-injurious behavior and pain behavior: Models and mechanisms*. Invited paper at the Peter Wall Institute for Advanced Studies Interdisciplinary Colloquia, University of British Columbia, Vancouver, Canada.
- Symons, F. J., (2004, July). *Pain and self-injury in nonverbal children with cognitive impairments*. Paper presented at the International Association for the Scientific Study of Intellectual Disability, Montpellier, France.



- Symons, F. J., & Dropik, P. (2004, July). *Early stereotyped behavior: Measurement issues and behavioral phenotypes*. Paper presented at the International Association for the Scientific Study of Intellectual Disability, Montpellier, France.
- McComas, J. J., Hoch, J., & Symons, F. J. (2004, May). *Sequential and matching analysis of destructive and pro-social verbal behavior*. Paper presented at the 30<sup>th</sup> Annual Association for Behavior Analysis, Boston, MA
- Hoch, J., McComas, J. J., & Symons, F. J. (2004, May). *Observational research methodology: Sequential analysis*. Paper presented at the 30<sup>th</sup> Annual Association for Behavior Analysis, Boston, MA
- Hoch, J., Mauer, E. C., Shinde, S. K., & Symons, F. J. (2004, May). *Matching analysis of manding and self-injurious behavior during discrete trials instruction and experimental analysis sessions*. Poster presented at the 30<sup>th</sup> Annual Association for Behavior Analysis, Boston, MA.
- Johnson, L., Petursdottir, A. L., McComas, J. J., & Symons, F. J. (2004, May). *Measuring change in teacher responsivity to aggressive and pro-social behavior in a preschool setting*. Poster presented at the 30<sup>th</sup> Annual Association for Behavior Analysis, Boston, MA.
- Symons, F. J., Dropik, P., & Alamsaputra, M. A. (2004, March). *Elevated stereotyped and self-injurious behavior during gastrostomy tube feeding*. Paper presented at the 37<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Diego, CA
- Dropik, P., Alamsaputra, M. A., & Symons, F. J. (2004, March). *The sequential structure of early repetitive movement and proto self-injurious behavior: A longitudinal observational analysis*. Paper presented at the 37<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Diego, CA.
- Hoch, J., Symons, F. J., & McComas, J. J. (2003, May). *Descriptive analysis of destructive and appropriate behavior: Obtained rates of reinforcement during assessment and treatment*. Paper presented at the 29<sup>th</sup> Annual Association for Behavior Analysis, San Francisco, CA.
- Symons, F. J., Dropik, P., Alamsaputra, M., Hoch, J., Sperry, L., Holditch-Davis, D., & Miles, M. S. (2003, March). *Early stereotyped and self-injurious behavior in children at risk for developmental disability*. Paper presented at the 36<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Bodfish, J. W., Sutton, K. A., Thorpe, D., Symons, F. J., & Lewis, M. H. (2003, March). *Early expression of abnormal repetitive behavior in children with autism spectrum disorders*. Paper presented at the 36<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Symons, F. J. (2003, March). *Early Development of Stereotyped and Self-Injurious Behavior*. Symposia Chair at the 36<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Annapolis, MD.
- Symons, F. J. (2002, August). *Self-injurious behavior and pain in adults with developmental disorders: Unmet clinical and research needs*. Paper presented at the International Association for the Study of Pain World Congress, San Diego, CA.

- Hoch, J., Dahl, N., McComas, J. J., & Symons, F. J. (2002, May). *Sequential and matching analysis of self-injurious behavior*. Poster presented at the 28<sup>th</sup> Annual Association for Behavior Analysis Conference, Toronto, Canada.
- Symons, F. J., & Sperry, L. A. (2002, March). *Repetitive behavior in children with autism: Maternal judgments of intentionality and family accommodation*. Paper presented at the 35<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, San Diego, CA.
- Symons, F. J., Hoch, J., Dahl, N., & McComas, J. (2001, October). *Matching analysis of self-injurious and adaptive behavior*. Paper presented at the Midwest Association for Behavior Analysis and Therapy, Minneapolis, MN.
- Breau, L., Boll, P., McKay, A., Symons, F. J., McGrath, P., Finley, A., Camfield, C., & Bodfish, J. W. (2001, June). *Pain and self-injurious behavior in neurologically impaired children*. Poster presented at the 62<sup>nd</sup> Annual Convention of the Canadian Psychological Association, Ste-Foy, Quebec.
- Symons, F. J. (2001, May). *Sequential analysis of idiosyncratic context effects on antecedents for self-injury*. Paper presented at the 27<sup>th</sup> Annual Association for Behavior Analysis Conference, New Orleans, LA.
- Wehby, J., H., & Symons, F. J. (2001, May). *Influence of contextual variables on sequential relations in classrooms*. Paper presented at the 27<sup>th</sup> Annual Association for Behavior Analysis Conference, New Orleans, LA.
- Symons, F. J., & Garfinkle, A. N. (2001, May). *The stability and variability in levels of engagement of toddlers with autism in inclusive childcare*. Paper presented at the 27<sup>th</sup> Annual Association for Behavior Analysis Conference, New Orleans, LA.
- Garfinkle, A. N., & Symons, F. J. (2001, May). *A description of the amount and range of play behaviors of toddlers with autism in inclusive childcare*. Paper presented at the 27<sup>th</sup> Annual Association for Behavior Analysis Conference, New Orleans, LA.
- Symons, F. J., Sutton, K. A., Walker, C., & Bodfish, J. W. (2001, March). *Self-injurious behavior, salivary substance P, and naltrexone treatment response*. Paper presented at the 34<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.
- Symons, F. J., Clark, R. D., Hatton, D. D., Skinner, M. L., & Bailey, D. B. (2001, March). *Self-injury in fragile X syndrome*. Paper presented at the 34<sup>th</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.
- Harper, V. N., Deacon, J., Symons, F. J., & Bodfish, J. W. (2001, February). *Behavioral indicators of pain: Research and clinical applications*. Paper presented at the North Carolina Association for Behavior Analysis Conference, Wrightsville Beach, NC.
- Symons, F. J. (2000, October). *Early development of self-injurious behavior: A review of the empirical evidence*. Paper presented at the Midwest Association for Behavior Analysis and Therapy, Minneapolis, MN.

- Symons, F. J., Sperry, L. A., & Holditch-Davis, D. (2000, March). *Early stereotyped and self-injurious behavior in at-risk medically fragile children*. Invited paper presented at the 33<sup>rd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, San Diego, CA.
- Roberts, J. A., Symons, F. J., Driscoll, E., Seigler, B., Hatton, D., & Boccia, M. (2000, March). *Stereotyped and self-injurious behavior in fragile X syndrome*. Poster presented at the 33<sup>rd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, San Diego, CA.
- Bodfish, J. W., Mahorney, S. L., Symons, F. J., Newell, K. M., Lewis, M. H. (2000, March). *Dynamical analysis of stereotypy and self-injury: Is there a lawful relationship between variability, complexity, and resistance to change?* Paper presented at the 33<sup>rd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, San Diego, CA.
- Bodfish, J. W., & Symons, F. J. (2000, January). *Psychiatric consequences of untreated traumatic pain*. Paper presented at the Millcroft Inn Symposia on Pain and Neurologic Impairment, Toronto, Canada.
- Symons, F. J., Hinze, C., Sutton, K. A., & Bodfish, J. W. (1999, October). *Pain management in developmental disabilities*. Poster presented at the annual St. Amant Center Conference on Research & Applications Related to Developmental Disabilities, Winnipeg, MB, Canada.
- Symons, F. J., Clark, R. D., Wulfsberg, A., & Bailey, D. B. (1999, September). *Self-injury in elementary school-aged boys with fragile X syndrome*. Poster presented at the North Carolina American Association on Mental Retardation Conference, Greensboro, NC.
- Symons, F. J. (1999, July). *Research in self-injury and young children with developmental disabilities*. Invited colloquia at the Department of Educational Psychology and Special Education. University of British Columbia, Vancouver, Canada.
- Symons, F. J. (1999, July). *Self-injurious behavior in children and adults with developmental disabilities*. Invited colloquia at the Peter Wall Institute for Advanced Studies. University of British Columbia, Vancouver, Canada.
- Symons, F. J., Clark, R. D., Wulfsberg, A., & Bailey, D. B. (1999, June). *Self-injury in fragile X syndrome: Onset, forms, and locations*. Poster presented at the Mental Retardation Developmental Disabilities Research Center's Director's Meeting, Birmingham, AB.
- Symons, F. J. (1999, May). *Classroom social interactions of young boys with fragile X syndrome*. Poster presented at the Annual Association for Behavior Analysis, Chicago, IL.
- Symons, F. J., Wulfsberg, A., Wehby, J., & Tapp, J. (1999, March). *Descriptive and sequential analysis of self-injury: Does context matter?* Paper presented at the 32<sup>nd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.
- Tapp, J., Wehby, J., Symons, F. J., Wulfsburg, A., Bodfish, J., Sutton, K., & Heath, B. (1999, March). *Analysis of self-injurious behavior observations using the MOOSES software package*. Poster presented at the 32<sup>nd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.

- Lewis, M., Parker, D., Bodfish, J., & Symons, F. J. (1999, March). *The varieties of restricted, repetitive behavior: How unique is autism?* Paper presented at the 32<sup>nd</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.
- Clark, R. D., Symons, F. J., Roberts, J. P., & Bailey, D. B. (1998, July). *Elementary classrooms serving students with Fragile X syndrome: Practices, quality, and engagement.* Paper presented at The Sixth International Fragile X Conference, Asheville, NC.
- Butler, M. G., Symons, F. J., Sanders, M. D., Feurer, I. D., & Thompson, T. (1998, July). *Self-injurious behavior and Prader-Willi syndrome: Genetic subtypes and body locations.* Paper presented at the Annual Prader-Willi Syndrome Association (USA) Scientific Conference, Columbus, OH.
- Symons, F. J. (1998, July). *Sequential analysis: Research applications in special education.* Invited paper presented at the Annual OSEP Research Project Director's Conference, Washington, DC.
- Symons, F. J., & Thompson, T. (1998, March). *Self-injurious behavior and sleep disturbance in adults with development disabilities.* Poster presented at the 31<sup>st</sup> Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Charleston, SC.
- Symons, F. J. (1998, February). *Behavioral and biochemical mechanisms in self-injurious behavior.* Invited paper presented at the North Carolina Association for Behavior Analysis Annual Conference, Chapel Hill, NC.
- Melzer, P., Pickens D.R., Price, R.R., Morgan, V.L., Symons F.J., & Wall, R.S., (1998). Reading braille predominantly activates extrastriate cortex in persons with severe visual disability: An fMRI study. *Proc. Sixth Scientific Meeting of the Intl. Soc. Magnetic Resonance in Med.*,1514.
- Symons, F. J., Koppekin, A., & Wehby, J. H. (1997, October). *Does reducing self-injurious behavior improve the quality of life for persons with mental retardation and related developmental disabilities?* Poster presented at the annual St. Amant Center Conference on Research & Applications Related to Developmental Disabilities, Winnipeg, MB, Canada.
- Symons, F. J. & Thompson, T. (1997, August). *Self-injurious behavior, body site preference, and opioid peptides in developmental disabilities.* Invited paper presented at the annual American Psychological Association, Chicago, IL.
- Symons, F. J., & Thompson, T. (1997, May). *Self-injurious behavior and naltrexone: Differentiating responders and nonresponders.* Poster presented at the Annual Association for Behavior Analysis, Chicago, IL.
- Symons, F. J. & Thompson, T. (1996, July). *Multiply determined self-injurious behavior: A case study combining behavioral and pharmacological treatment.* Poster presented at the 10th World Congress of the International Association for the Scientific Study of Intellectual Disabilities. Helsinki, Finland.
- Thompson, T. & Symons, F. J. (1996, July). *Self-injury as neurotransmitter self-administration: Interactions between social functions and neurochemical mechanisms.* Paper presented at the 10th World Congress of the International Associated for the Scientific Study of Intellectual Disabilities. Helsinki, Finland.

- Wehby, J.H., & Symons, F. (1996, Feb.) *Assessing curricular preference in students with emotional and behavioral disorders: A description of teacher and student differences*. Paper presented at the Midwest Symposium for Leadership in Behavior Disorders, Kansas City, KS.
- Wehby, J. H. & Symons, F. J. (1996, May). *A multiple-gating approach to the functional assessment of aggressive behavior in classroom settings*. Paper presented at the Annual Association for Behavior Analysis, San Francisco, CA.
- Symons, F. J., Thompson, T., Fox, N., Weyand, D., Delaney, D., & Wolraich, M. (1996, March). *An experimental evaluation of functional communication training and naltrexone for self-injurious behavior*. Poster presented at the Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Gatlinburg, TN.
- Symons, F. J., Delaney, D., & Thompson, T. (1995, November). *Self-injurious behavior: Analysis and treatment*. Workshop presented at the Annual Conference of the Southeastern Region of the American Association on Mental Retardation. Memphis, TN.
- Wehby, J., Symons, F. J., & Rush, S. J. (1995, May) *Use of descriptive observational data to identify factors related to the occurrence of aggressive behavior in classrooms*. Paper presented at the Annual Association for Behavior Analysis. Washington, DC.
- Symons, F. J., & Thompson, T. (1995, May). *Implications for the analysis of social and nonsocial mechanisms in SIB: Sleep disturbance and self-injury sites*. Paper presented at the Annual Association for Behavior Analysis. Washington, DC.
- Delaney, D., Symons, F.J., England, C., & Thompson, T. (1995, May). *Neurochemicals as components of behavioral mechanisms in self injury*. Paper presented at the Annual Association for Behavior Analysis. Washington, D.C.
- Symons, F. J., Weyand, D., Fox, N., & Thompson, T. (1995, April). *A three phase assessment of self-injurious behavior: Implications for behavioral and neurochemical intervention*. Paper presented at the Annual Conference of the Experimental Analysis of Behavior Group, London, England.
- Symons, F. J., & Thompson, T. (1995, March). *Sleep disturbance and self injury sites: Implications for neurochemical mechanisms*. Paper presented at the Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Gatlinburg, TN.
- Symons, F. J., Delaney, D., Brown, B., Thompson, T. (1994, April). *Assessment of behavioral and opioid mechanisms in self-injurious behavior*. Paper presented at the Annual Conference of the Experimental Analysis of Behavior Group, London, England.
- Symons, F. J., & Davis, M. L. (1994, February). *Instructional conditions and stereotyped behavior: The function of prompts*. Poster presented at Graduate Student Research Day. Vanderbilt University.
- Delaney, D., & Symons, F. (1994, March). *Opioid mechanisms in self-injury*. Paper presented at the Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities. Gatlinburg, TN.
- Symons, F. J., & McDonald, L. (1993, May). *Facilitating a descriptive functional assessment: The scatter plot revisited*. Poster presented at the Annual Association for Behavior Analysis. Chicago, IL.

Symons, F. J. (1992, May). *Behavior analysis at the University of Alberta*. Poster presented at the Annual Association for Behavior Analysis. San Francisco, CA.