

MARILYN WELSH, PH.D.

School of Psychological Sciences | College of Education and Behavioral Sciences
McKee Hall, Campus Box 94 | Greeley, CO 80639
(970) 351-2236 | Marilyn.welsh@unco.edu

EDUCATION

1983 Ph.D. in Psychology, University of California, Los Angeles

POSTDOCTORAL TRAINING

1984 - 1987 Postdoctoral Research Fellow
National Institute of Mental Health, Developmental Psychobiology Research Training Group
Department of Psychiatry, Dr. Bruce Pennington (advisor)
University of Colorado at Denver Health Sciences

AREAS OF SPECIALIZATION

Developmental Neuropsychology, Cognitive Development, Individual Differences

RESEARCH AREAS/ INTERESTS

Executive functions mediated by the prefrontal cortex, including: typical and atypical development, assessment measures, curriculum to facilitate executive skills; associations between individual differences in executive functions and adaptation (e.g. academic self-efficacy, career decision making); manifestation of hot and cool forms of executive function; the impact of child maltreatment on executive processes, and adaptation to college

PROFESSIONAL EXPERIENCE

1992 – Present University of Northern Colorado; Assistant, Associate, and Full Professor of Psychology

2007 – Present Coordinator of Graduate Programs in Educational Psychology

1990 – 1992 University of Denver; Research Associate

1990 – 1992 University of Colorado at Denver; Adjunct Assistant Professor

1990 – 1992 Metropolitan State College, Denver; Adjunct Assistant Professor

1987 – 1990 Fordham University, NY; Assistant Professor

PEER-REVIEWED PUBLICATIONS

Welsh, M.C., Peterson, E., Jameson, M. (2017). History of Child Maltreatment and College Academic Outcomes: Mediation by Execution Function. Special section of *Frontiers in Science: Psychology*. DOI: 10.3389/fpsyg.2017.01091

Welsh, M.C., Gorman Barry, P., Jacobs, A., & Beddes, L. (under review). Homeless Men Living in Transitional Housing: The BrainWise Curriculum and Improvements in Executive Functions and Coping Self-Efficacy. *Sage Open*

Peterson, E., & Welsh, M.C. (2014). Formative versus reflective measurement in executive functions: A critique of Willoughby et al. *Measurement: Interdisciplinary Research & Perspectives*.

Welsh, M.C., & Peterson, E. (2014). Issues in the Conceptualization and assessment of hot executive functions in childhood. *Journal of the International Neuropsychological Society*, 20(2), 152 – 156.

- Welsh, M.C.,** & Wilson-Schmitt, S. (2013). Executive function, identity and career decision making in college students. *Sage Open, 3*, 1-9.
- Wilson-Schmitt, S., & **Welsh, M.C..** (2012). Vocational knowledge in rural children: A study of individual differences and predictors of occupational aspirations and expectations. *Learning and Individual Differences, 22*, 862-867.
- Salnaitis, C. L., Baker, C. A., Holland, J., **Welsh, M. C.** (2011). Differentiating Tower of Hanoi performance: Interactive effects of psychopathic tendencies, impulsive response styles, and modality. *Applied Neuropsychology, 18*, 37-46.
- Ketelson, K., & **Welsh, M.C.** (2010). Working Memory and Mental Arithmetic: A Case for Dual Central Executive Resources. *Brain and Cognition, 74*, 203-209.
- De Roche, K., & **Welsh, M.C.** (2008). Twenty-Five Years of Research on Neurocognitive Outcomes in Early-treated Phenylketonuria: Intelligence and Executive Function. *Developmental Neuropsychology, 33*, 474-504.
- Zook, N., **Welsh, M.C.,** Ewing, V. (2006). Performance of healthy, older adults on the Tower of London-Revised: Associations with verbal and nonverbal abilities. *Aging, Neuropsychology, and Cognition 13*, 1-19.
- Mutter, B., Alcorn, M., & **Welsh, M.C.** (2006). Theory of mind and executive function: Working memory capacity and inhibitory control as predictors of false-belief task. *Perceptual and Motor Skills, 102*, 819-835.
- Emick, J. & **Welsh, M.C.** (2005). Association between formal operational thought and executive functions. *Learning and Individual Differences, 15*, 177-188.
- Welsh, M.C.** & Huizinga, M.C. (2005). Tower of Hanoi disk-transfer task: influences of strategy knowledge and learning on performance. *Learning and Individual Differences., 15*, 283-298.
- Welsh, M.C.** & Huizinga, M. (2001). Development and preliminary validation of the Tower of Hanoi-Revised. *Assessment, 8*, 167-176.
- Welsh, M.C.,** Revilla, V., Strongin, D., & Kepler, M. (2000). Towers of Hanoi and London: Is the nonshared variance due to differences in task administration? *Perceptual and Motor Skills, 562-572*.
- Welsh, M.C.,** Satterlee-Cartmell, T., & Stine, M. (1999). Towers of Hanoi and London: Contribution of working memory and inhibition to performance. *Brain and Cognition, 41*, 231-242.
- Schnirman, G., **Welsh, M.C.,** & Retzlaff, P. (1998). Development of the Tower of London-Revised. *Assessment, 5*, 355-360.
- Humes, G.E., **Welsh, M.C.,** Retzlaff, P., & Cookson, N. (1997). Towers of Hanoi and London: Reliability and validity of two executive tasks. *Assessment, 4*, 249-257.
- Brennan, M., **Welsh, M.C.,** & Fisher, C.B. (1997). Aging and executive function skills: An examination of a community-dwelling older adult population. *Perceptual and Motor Skills, 84*, 1187-1197.
- Welsh, M.C.** (1996). A prefrontal dysfunction model of early-treated phenylketonuria. *European Journal of Pediatrics (Special Section), 155*, 87-89.
- Welsh, M.C.,** Cicerello, A., Cuneo, K., & Brennan, M. (1995). Error and temporal patterns on the Tower of Hanoi disk-transfer task: Cognitive mechanisms and individual differences. *Journal of General Psychology, 122*, 69-81.

- Pennington, B.F., Groisser, D., & **Welsh, M.C.** (1993). Contrasting neuropsychological deficits in Attention Deficit Hyperactivity Disorder versus Reading Disability. *Developmental Psychology, 29*, 511-523.
- Cuneo, K.M. & **Welsh, M.C.** (1992). Perseveration in young children: Developmental and neuropsychological perspectives. *Child Study Journal, 22*, 73-92.
- Welsh, M.C.**, Pennington, B.F., & Groisser, D. (1991). A normative-developmental study of executive function: A window on prefrontal function in children. *Developmental Neuropsychology, 7*, 131-149.
- Welsh, M.C.** (1991). Rule-guided behavior and self-monitoring on the Tower of Hanoi disk-transfer task. *Cognitive Development, 6*, 59-76.
- Welsh, M.C.**, Pennington, B.F., Ozonoff, S., Rouse, B., & McCabe, E.R.B. (1990). Neuropsychology of Early-treated Phenylketonuria: Specific Executive Function Deficits. *Child Development, 61*, 1697-1713.
- Welsh, M.C.** & Pennington, B.F. (1988). Assessing frontal lobe functioning in children: Views from developmental psychology. *Developmental Neuropsychology, 4*, 199-230.
- Welsh, M.C.** (1987). Verbal mediation underlying inductive reasoning: Cognitive tempo differences. *Cognitive Development, 2*, 37-57.
- Pennington, B.F., Johnson, C., & **Welsh, M.C.** (1987). Unexpected reading precocity in a normal preschooler. *Brain and Language, 30*, 165-180.
- Welsh, M.C.**, Pennington, B.F., & Rogers, S. (1987). Word recognition and comprehension skills in hyperlexic children. *Brain and Language, 32*, 76-96.
- Lawry, J.A., **Welsh, M.C.**, & Jeffrey, W.E. (1983). Cognitive tempo and complex problem solving. *Child Development, 54*, 912-20.

INVITED CHAPTERS

- Peterson, E.** & **Welsh, M.C.** (2014). The development of hot and cool executive functions: Are we getting warmer? In S. Goldstein and J.A. Naglieri (Eds.), *Handbook on Executive Functioning*, (pp. 45 – 65). New York: Springer.
- Welsh, M.C.**, De Roche, K. & Gilliam, D. (2008). Neurocognitive Models of Early-treated Phenylketonuria: Insights from Meta-Analysis and New Molecular Genetic Findings. C. Nelson & M. Luciana (Eds.), *Handbook of Developmental Cognitive Neuroscience*. Boston: MIT Press.
- Gorman Barry, P., & **Welsh, M.C.** (2007). The BrainWise Curriculum: Neurocognitive Development Intervention Program. In D. Romer & E. Walker (Eds.), *Adolescent Psychopathology and the Developing Brain: Integrating brain and prevention science*. New York: Oxford University Press.
- Welsh, M.C.**, Friedman, S.L., & Spieker, S.J. (2006). Executive Functions in Developing Children: Current Conceptualizations and Questions for the Future. In D. Phillips & K. McCartney (Eds.), *Handbook of Early Childhood Development*. London: Blackwell.
- Welsh, M.C. (2002). Developmental and clinical variations in executive functions. In D. Molfese & V. Molfese (Eds.), *Developmental variations in language and learning*. Hillsdale, NJ: Erlbaum
- Welsh, M.C.** (2001). The prefrontal cortex and the development of executive functions. In A. Kalverboer and

A. Gramsbergen (Eds.), Handbook of brain and behaviour development. The Netherlands: Kluwer.

Welsh, M.C. & Pennington, B.F. (2000). Phenylketonuria. In K.O. Yeates, M.D. Ris, H.G. Taylor (Eds.), Pediatric Neuropsychology: Research, theory, and practice. New York: Guilford.

Pennington, B.F. & **Welsh, M.C.** (1995). Neuropsychology and developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), Manual of developmental psychopathology. New York: John Wiley.

Welsh, M.C. (1994). Executive function and the assessment of attention deficits. In N. Jordan & J. Goldsmith-Phillips (Eds.), New directions in the assessment and treatment of learning disabilities. New York: Allyn and Bacon

Welsh, M.C. (1993). Hyperlexia and precocious reading. In G. Blanken, J. Dittmann, H. Grimm, J. Marshall, & C. Wallesch (Eds.), Linguistic disorders and pathologies: An international handbook. Berlin: Walter De Gruyter.

JURIED PROFESSIONAL PRESENTATIONS

Peterson, E., & **Welsh, M.C.** (2018). Trauma-specific Symptoms and General Mental Health Status Each Predict Hot Executive Function Performance in a College Sample. Conference of the International Neuropsychology Society, International Neuropsychological Society.

Welsh, M.C., & Peterson, E. (2018). Child Maltreatment and Hot Executive Function as Predictors of College GPA. Conference of the International Neuropsychological Society, Washington, DC.

Peterson, E., **Welsh, M.C.**, Peake, M., LaFary, K., Moore, S., Jacobs, A., Johnson, N., Moulton, E., Richardson, J., Snodgrass, I., Wilson, L., Ben-Salem, M., Strasbaugh, S., Barthelemy, K., Baxter, M. (2017). Associations between Trauma Symptoms and Hot and Cool Executive Function Performance. Eighth biennial conference of the Society for the Study of Emerging Adulthood, Washington, DC.

Moulton, E., **Welsh, M.**, Peterson, E., Peake, M., LaFary, K., Jacobs, A., Barthelemy, K., Baxter, M., Ben Salem, M., Johnson, N. D., Moore, S., Richardson, J. P., Snodgrass, I., Strasbaugh, S. L., & Wilson, L. M. (2017, November). *Associations between self-reports of history of child maltreatment and social-emotional functioning: Aggression and empathy*. Eighth annual meeting of the Society for the Study of Emerging Adulthood (SSEA), Washington, DC.

Jacobs, A. A., **Welsh, M.**, Peterson, E., Peake, M., LaFary, K., Johnson, N., Richardson, J., Moore, S., Moulton, E., Wilson, L., Snodgrass, I., Barthelemy, K., & Strasbaugh, S. (2017). Associations between measures of aggression and empathy and self-reported college adaptation. Eighth biennial conference of the Society for Emerging Adulthood, Washington, DC.

Johnson, N., **Welsh, M.**, Peterson, E., Peake, M., LaFary, K., Strasbaugh, S., Richardson, J., Moore, S., Jacobs, A. A., Moulton, E., Snodgrass, I., Wilson, L., Ben-Salem, M., Barthelemy, K., & Baxter, M. B. (2017). *History of childhood maltreatment and college achievement and adaptation*. Eighth biennial conference of the Society for Emerging Adulthood, Washington, DC.

LaFary, K., **Welsh, M.**, Peterson E., Peake, M., Moore, S., Jacobs, A., Moulton, E., Snodgrass, I., Richardson, J., Johnson, N., Wilson, L., Barthelemy, K., Strasbaugh, S., Ben-Salam, M., & Baxter, M. B. (2017). Associations between hot and cool Go-No-Go task performance and college adaptation. Eighth biennial conference of the Society for Emerging Adulthood, Washington, D.C.

- Moore, S., Peterson, E., **Welsh, M.**, Peake, M., Moore, S., Jacobs, A., Moulton, E., Snodgrass, I., Richardson, J., Johnson, N., Wilson, L., Barthelemy, K., Strasbaugh, S., Ben-Salam, M., (2017). Associations between aggression and empathy: Differences based on a history of child maltreatment. Eighth biennial conference of the Society for Emerging Adulthood, Washington, DC.
- Strasbaugh, S.L, **Welsh, M.**, Peterson, E., Peake, M., LaFary, K., Johnson, N., Richardson, J., Moore, S., Jacobs, A., Moulton, E., Snodgrass, I., Wilson, L. Ben Salem, M., Barthelmey^G, K., & Baxter, M. B. (2017). Hot executive function measured by the Iowa Gambling tasks predicts college achievement. Eighth biennial conference of the Society for Emerging Adulthood, Washington, DC.
- Wilson, L. M., **Welsh, M.C.**, Peterson, E., Jacobs, A. A., Moulton, E., Snodgrass, I. D., Richardson, J. P., Barthelemy, K., LaFary, K., Peake, M., Johnson, N. D., Strasbaugh, S. L., Moore, S. M., Baxter, M.B., & Ben-Salem, M. (2017). Associations between aggression and college GPA in students with and without history of childhood maltreatment. Eighth biennial conference of the Society for Emerging Adulthood, Washington, DC.
- Snodgrass, I., LaFary, K., **Welsh, M.**, Peterson, E., Peake, M., Moore, S., Johnson, N., Strasbaugh, S., Richardson, J., Wilson, L., Ben-Salem, M., Moulton, E., Barthelemy, K., & Baxter, M. (2017). Hot & Cool Executive Functions: Associations with Personality and Mental Health in College Students. Rocky Mountain Psychological Association Conference, Salt Lake City, UT.
- Welsh, M.C.**, Peterson, E., Peake, M., LaFary, K., Hill, Baxter, M., Johnson, N., Richardson, J., Camp, R., Wright, C. (2016). Hot and Cool Executive Functions in College Students with and without a History of Maltreatment. American Psychological Association, Denver.
- Welsh, M.C.**, Gorman Barry, P, Jacobs, A., & Beddes. L. (2016). Homeless Men Living in Transitional Housing: The BrainWise Curriculum and Improvements in Executive Functions and Coping Self-Efficacy. International Neuropsychological Society Conference, Boston.
- Welsh, M.C.**, Peterson, E. Rohrbacher, A.C., Williams, D., LaFary, K., Barthel, A., Parsell, S., Alexander, R., & Younis, M. (2016). Effects of Task Context and Individual Differences on the “Heat” of Cool Executive Function Tasks
- Kirkland, R. A., **Peterson, E.**, **Welsh, M.C.**, & Tienvieri, S. Evidence of declining implicit mental state understanding during aging. Association for Psychological Science annual conference, New York, 2015.
- Welsh, M.C.**, **Peterson, E.**, Williams, D., Rohrbacher, C., LaFary, K., Blanchard, L., & Renshaw, S. “Turning up the heat.” In an incentivized testing context, individual differences in personality and temperament influence executive function performance. Association for Psychological Science, New York, 2015.
- Rohrbacher, C., Welsh, M.C., Peterson, E., Williams, D., LaFary, K., Blanchard, L., & Renshaw, S. Experimental evidence demonstrates that incentivizing the test context “heats” traditional cool executive functions tasks. Association for Psychological Science, New York, 2015.
- Baker, C.A., **Welsh, M.C.**, **Peterson, E.**, Kole, James. (2015). Musical Working Memory in Musicians and Non-musicians within Baddeley’s Multicomponent Working Memory Model. International Neuropsychological Society Conference, Denver.
- Welsh, M.C., Gorman Barry, P., Cooper, L, & Beddes (2015). Homeless Men in Transitional Housing Receiving the BrainWise Curriculum: Baseline Data on Executive Functions, Problem Solving and

Coping Self-Efficacy. International Neuropsychological Society, Denver, CO.

- Welsh, M.C., & C. Rohrbacher (2015). Executive Functions and Hypothetical Risk-Taking as Predictors of Developmental Tasks in Emerging Adulthood: Academic Self-Efficacy and Career Decision Making. Poster presented at the annual meeting of the International Neuropsychological Society, Denver, CO.
- Drake, D., Welsh, M.C., Felmban, W., Smith, K., Kihlthau, N., Pinkham, A., Weiss, D., & Allen, J. (2012). Predicting self-reported risk taking and risk perception using experimental measures of risky decision making and executive functions. International Neuropsychological Society, Montreal, Canada.
- Schmitt-Wilson, S. & Welsh, M. C. (2011). Executive Function, Identity, and Career Decision Making in Young Adults. Paper presented at the 5th annual Conference of Emerging Adulthood, Providence, RI, October 28, 2011.
- Schmitt-Wilson, S. & Welsh, M. C. (2011). Vocational Knowledge Among Children: A Study of Individual Differences and Predictors of Occupational Aspirations and Expectations. Poster to be presented at the Biennial Meeting of the Society for Research in Child Development (SRCD), Montreal, Quebec, Canada, March 31, 2011.
- Welsh, M.C., Schmitt-Wilson, S., Eguigure, A., Lloyd, B., Smith, A., Thompson, R., & Yue, Y. (2010). Executive Functions and Identity in Adolescent Females. Poster presented at the annual Society for Research on Adolescence (SRA), Philadelphia, PA, March 12, 2010.
- Schmitt-Wilson, S., Welsh, M. C., Thompson, R., Smith, A., Lloyd, B., Eguigure, A., & Yue, Y (2010). Executive Functions, Identity, and Career Decision Making in Adolescent Females. Presented at the Rocky Mountain Psychological Association annual conference, Denver, CO, April 17, 2010. Project was an Outstanding Research Finalist.
- Welsh, M.C. Gorman Barry, P. & Klaczynski, P. (2009). Predictors of High School Attrition among High-Risk Teenagers: Executive Function and Risk Assessment. Poster presented at the annual meeting of the International Neuropsychological Society, Atlanta, GA.
- Welsh, M.C., Gorman Barry, P., & Klaczynski, P. (2009). An experimental examination of the effects of hypothetical base rates on adolescents' of risky behaviors. Poster presented at the annual meeting of the Society for Research on Child Development. Denver, CO.
- Welsh, M.C., Gorman Barry, P., & Klaczynski, P. (2009). A Critical Thinking Skills Intervention for High-Risk teenagers: Associations with Executive Functions. Poster presented at the annual meeting of the International Neuropsychological Society, Atlanta, GA.
- Welsh, M.C., Gorman Barry, P. Sprekas, N. & Chestnut, J. (2008). A Longitudinal Study of Executive Functions in Young, Low-Income, Hispanic Children. Poster presented at the annual meeting of the International Neuropsychological Society, Hawaii.
- Chestnut, J., Welsh, M.C., Logan, S., & Van Romer, C. (2007). Associations between Executive Functions and Self-reported Risk Taking Behavior in College Students. Poster presented at the annual meeting of the International Neuropsychological Society, Portland, OR.
- Adams, C., Welsh, M.C., & Phillips, L. (2007). The Effect of Cognitive Load, Interference Type, and Timing on Working Memory Performance in a Dual-Task Paradigm. Poster presented at the annual meeting of the International Neuropsychological Society, Portland, OR.
- Holland, J., Welsh, M.C., Dickenson, J. & Richards, L. (2007). The Effect of Inhibition Manipulation on

- TOH-R Performance for both the Computerized and Manual Versions. Poster presented at the annual meeting of the International Neuropsychological Society, Portland, OR.
- Welsh, M.C., Gorman Barry, P., Sperekas, N. & Holland, J. (2007). Executive Functions in Low-Income Hispanic 2nd Grade Children and their Parents. Poster presented at the annual meeting of the International Neuropsychological Society, Portland, OR.
- Welsh, M.C., & Gorman Barry, P., Sperekas, N., Zook, N., Holland, J. & Legget, K.. (2006). Executive function in High-risk Children and Adolescents Before and After the BrainWise® Intervention Program. Poster presented at the annual meeting of the International Neuropsychological Society, Boston, MA.
- DeRoche, K., Welsh, M.C., & Seever, E. (2006). Meta-analysis of Executive Function and Intelligence Outcomes in Early-treated Phenylketonuria. Poster presented at the annual meeting of the International Neuropsychological Society, Boston, MA
- Vigil, D., Welsh, M.C., Comer, L., Hill, T. & Strong, E. (2006). Working Memory Performance in College Women Scoring High and Low on Dietary Restraint. Poster presented at the annual meeting of the International Neuropsychological Society, Boston, MA.
- Ketelsen, K., Welsh, M.C., Holter, B., & Hu, R. (2006). Verbal and Nonverbal Central Executive Resources in a Mental Arithmetic Working Memory Task. Poster presented at the annual meeting of the International Neuropsychological Society, Boston, MA.
- Gorman Barry, P., & Welsh, M.C. (2005). The BrainWise® Curriculum: Neurocognitive Development Intervention Program. Presented at the Adolescent Psychopathology and the Developing Brain Conference, Annenberg School of Public Policy at the University of Pennsylvania, Philadelphia, PA.
- M. Welsh, D. Davis, L. Comer, B. Aki, & D. Vigil (2005). Dietary Restraint and Working Memory Performance in Male and Female College Students. Poster presentation at the annual meeting of the International Neuropsychological Society, Baltimore, MD.
- M. Welsh, Z. Howell, S. Tlustos, & J. Emick (2005). Formal Operational Thought and Executive Functions in College Freshmen and Seniors. Poster presentation at the annual meeting of the International Neuropsychological Society, Baltimore, MD.
- C. Adams, M. Welsh, A. Johnson, C. Long, & M. Fredricks (February, 2004). Contribution of Delay of Gratification to Tower of Hanoi Performance. Poster presentation at the annual meeting of the International Neuropsychological Society, Baltimore, MD.
- J. Emick, M. Welsh, Z. Howell, & S. Chandran (2004). Relation between Formal Operational Thought and Executive Functions. Poster presentation at the annual meeting of the International Neuropsychological Society, Baltimore, MD.
- M. Welsh, C. Marteja, S. Price, A. Oblander, & T. Siebert (2004). Interaction of Working Memory and Inhibition in a Limited Capacity System. Poster presentation at the annual meeting of the International Neuropsychological Society, Baltimore, MD.
- K. Norton, M. Alcorn, M. Welsh, & C. Granrud (2004). Children's understanding of modality-specific knowledge may be related to their social-cognitive problem solving. American Psychological Society, Chicago, IL.
- C. O'Reilly-Wolf, M. Welsh, H. McNeil, J. Emick, & S. Gonzalez (February, 2003). Individual Differences in Self-Efficacy and Tower Task Performance. Poster presentation at the annual meeting of the

International Neuropsychological Society, Honolulu, Hawaii.

- C. Adams, M. Welsh, E. Warneke, K. Norton, & D. Orr. (February, 2003). Validity Study of a Computerized Version of the Tower of Hanoi-Revised. Poster presentation at the annual meeting of the International Neuropsychological Society, Honolulu, Hawaii.
- N. Zook, M. Welsh, P. Retzlaff, E. Alm, V. Ewing & H. Wakkinen. (February, 2003). Tower of London-Revised and WAIS-III Performance in Older Adulthood. Poster presentation at the annual meeting of the International Neuropsychological Society, Honolulu, Hawaii.
- M. Welsh (April, 2003). Nature, Nurture and the Development of Executive Functions: Frontal lobes, Families, and "Feelings." Invited discussant for symposium entitled "Development of planning in children" presented at the biennial meeting of the Society for Research in Child Development, Tampa, Florida.
- S. Sabella, M. Alcorn, & M. Welsh; (2003). Executive function in preschool children: Interrelationships among inhibition, attention, and working memory. Society for Research in Child Development.
- Welsh, M.C., Huzinga, M., Granrud, M., Cooney, J., Adams, C. & van der Molen, M. (2002, February). A structural equation model of executive function in normal young adults. Paper presented at the annual meeting of INS, Toronto, Ontario, Canada.
- Bagley, A., Welsh, M.C., Retzlaff, P., Wolf, C., Bryan, E. (2002, February). Towers of Hanoi and London: Contributions of procedural learning and inhibition. Paper presented at the annual meeting of INS, Toronto, Ontario, Canada.
- Lock, C., Welsh, M.C., Adams, C., & Kurtz, A. (2002, February). Tower of Hanoi: influence of strategy instruction and extended practice on performance and knowledge. Paper presented at the annual meeting of INS, Toronto, Ontario, Canada.
- McGarraugh, M., Welsh, M.C., Retzlaff, P., Ehmke, J., & Strom, R. 2001, February). Associations among executive function, speed of processing, and intelligence. Paper presented at the annual meeting of INS, Chicago, IL.
- Devine, S., Welsh, M.C., Retzlaff, P., Yoh, M., Adams, C. (2001, February). Explicit and implicit cognitive processes underlying Tower of Hanoi performance. Paper presented at the annual meeting of INS, Chicago, IL.
- Welsh, M.C., Huizinga, M., McGarraugh, M., Devine, S., & Beaty, K. 2000, February). Reliability and validity of the Tower of Hanoi-Revised. Paper presented at the annual meeting of INS, Denver, CO.
- McCullen, A., Welsh, M.C., Morreale, M., & Rigg, A. (2000, February). The prefrontal functions of working memory and inhibition: A test of the limited capacity model. Paper presented at the annual meeting of INS, Denver, CO.
- Retzlaff, P., Vanderploeg, R., Welsh, M.C., McGarraugh, M., & Devine, S. (2000, May). The PC3: A brief test of cognitive functioning. Presented at the Aerospace Medical Association, Houston, TX.
- Welsh, M.C., Kelley, G.A., & Tran, Z.V. (2000, October). A meta-analysis of treatment outcome research in early-treated phenylketonuria. Presented at the Consensus Development Conference on Phenylketonuria, NIH.
- Welsh, M.C., Morris, G., Revilla, V., Wagner, A., Ross, S., McCullen, A., & Darst, L. (1999, February).

Development of a computerized, recognition-format Tower of London suitable for ERP research. Paper presented at the annual meeting of INS, Boston, MA.

Kepler, M., Welsh, M.C., Retzlaff, P., Dickey, K., & Rigg, A. (1999, February). Developmental and individual differences in executive functions in school-aged children. Paper presented at the annual meeting of INS, Boston, MA.

Welsh, M.C., Revilla, V., Strongin, D., & Kepler, M. (1998, February). Validity and reliability of a new one-trial version of the Tower of Hanoi. Paper presented at the annual meeting of INS, Honolulu, HI.

Welsh, M.C., Petterson, N., Cartmell, T., & Stine, M. (1997, February). What Cognitive Processes are Tapped by the Towers of Hanoi and London? Paper presented at the annual meeting of INS, Orlando, FL.

Schnirman, G., Welsh, M., Retzlaff, P., Cookson, N., Tolbert, S., & Palmer, M. (1996, February). Development of the Tower of London-Revised. Paper presented at the annual meeting of INS, Chicago, IL.

Wilkinson, N., Morris, G., Retzlaff, P., & Welsh, M. (1996, August). Event-Related Potentials in the CVLT. Paper presented at the annual meeting of APA, Toronto, Canada.

Wall, B., Towle, P., Tryon, W., & Welsh, M. (1996, August). Executive Function and Behavior Problems in Low Birthweight Children. Paper presented at the annual meeting of APA, Toronto, Canada.

Welsh, M.C., Humes, G., & Cookson, E.N. (1995, February). Disk-transfer task intercorrelations: The Tower of Hanoi and the Tower of London. Paper presented at the annual meeting of INS, Seattle, WA

Humes, G., Welsh, M.C., & Cookson, E.N. (1995, February). The contribution of working memory to performance on disk-transfer tasks. Paper presented at the annual meeting of INS, Seattle, WA.

Welsh, M.C. (1994, November). A prefrontal dysfunction model of early-treated phenylketonuria. Invited address to the workshop, Phenylketonuria: International Survey of Management over 40 years; Fulda, Germany.

Welsh, M.C. (1993). An executive function model of learning disabilities. Invited address to the Learning Disabilities Association of Canada; Toronto, Canada.

Welsh, M.C. & Pennington, B.F. (1992, February). A critical evaluation of the current and potential applications of disk-transfer tasks to clinical and experimental neuropsychology. Paper presented at the annual meeting of INS, San Diego, CA.

Welsh, M.C. & Towle, P.O. (1991, February). Executive functions and associations with perinatal variables in preterm children. Paper presented at the annual meeting of INS, San Antonio, TX.

Wagner, J.M. & Welsh, M.C. (1991, February). The neuropsychological characteristics of children "not ready" for first grade: A follow-up study. Paper presented at the annual meeting of INS, San Antonio, TX.

Cuneo, K.M. & Welsh, M.C. (1990, February). A comparison of early-treated PKU preschoolers and their unaffected peers on measures of perseveration. Paper presented at the annual meeting of INS, Orlando, FL.

Welsh, M.C. & Wagner, J.M. (1990, February). The neuropsychological characteristics of children "not ready" for first grade and their first grade peers. Paper presented at the annual meeting of INS, Orlando, FL.

- Grund, El, Busch, N.A., & Welsh, M.C. (1990, March). Personality, cognition, and identity development in young women with early-treated PKU. Paper presented at the biennial meeting of the SRA, Atlanta, GA.
- Welsh, M.C., Ziontz, N., & Jeffrey, W.E. (1983, August). Verbal and attentional strategies contributing to children's figural matrix performance. Paper presented at the annual meeting of APA, Anaheim, CA.
- Welsh, M.C. & Cuneo, K.M. (1989, February). Perseveration in young children: A neuropsychological perspective. Paper presented at the annual meeting of INS, Vancouver, Canada.
- Welsh, M.C., Wall, B., & Towle, P.O. (1989, April). Executive function in children with attention deficit: Implications for prefrontal function. Paper presented at the biennial meeting of SSRCD, Kansas City, MO.
- Brennan, M., Welsh, M.C., & Fisher, C.B. (1989, November). Future-oriented planning measured by the Tower of Hanoi extended to an older population. Paper presented at the annual meeting of the GSA, Minneapolis, MN.
- Welsh, M.C., Groisser, D., & Pennington, B.F. (1988, February). A normative-developmental study of measures hypothesized to tap prefrontal functioning. Paper presented at the annual meeting of INS, New Orleans, LA.
- Welsh, M.C., Pennington, B.F., & McCabe, E.R. (1987, February). Performance of preschool PKU children on prefrontal measures. Paper presented at the annual meeting of INS, Washington, DC.
- Welsh, M.C., Pennington, B.F., & Rogers, S. (1986, May). Word recognition and comprehension skills in five hyperlexic children. Paper presented at the biennial retreat of the DPRG, Estes Park, CO.
- Welsh, M.C. (1985, April). Cognitive variables contributing to inductive reasoning. Paper presented at the biennial meeting of SRCD, Toronto, Canada.
- Welsh, M.C. & Jeffrey, W.E. (1984, August). Verbal mediation, cognitive tempo, and figural matrix performance. Paper presented at the annual meeting of APA, Toronto, Canada.
- Rader, N., Leaper, C., & Welsh, M.C. (1981, November). Verbally-guided search in reflective children. Paper presented at the annual meeting of the Psychonomic Society, Philadelphia, PA.
- Welsh, M.C. (1981, April). Perceptual errors underlying impulsive and reflective performance on the Matching Familiar Figures Test. Paper presented at the annual meeting of WPA, Los Angeles, CA.
- Welsh, M.C., Jeffrey, W.E., & Zelniker, T. (1980, April). Perceptual strategies in cognitive tempo. Paper presented at the annual meeting of WPA, Honolulu, HI.

FUNDED RESEARCH PROJECTS

2015 The Impact of Child Maltreatment History on Hot and Cool Executive Functions and the Consequences for Adaptation in the College Setting” **(co-PI, Eric Peterson)**. Summer Support Initiative funded by the FRPB. \$5000 (\$2500 to each PI), 6/1/15-8/15/15.

2015 The Impact of Child Maltreatment History on Cognition, Emotion, and Adaptation in College” **(co-PI, Eric Peterson)**. Funded by the UNC Research Dissemination and Faculty Development grant

program, \$9910, 1/16 – 12/31/17

2015 **Child Maltreatment as a Risk for Future Violence in College Students” (co-PI, Eric Peterson).**
Funded by the Avielle Foundation, \$20,000, 1/16/16 – 12/31/17. Funded.

2009 Thinking, Banking, and Texting: Teaching At-Risk Teens to “Be BrainWise with Money”.
Application submitted to UNC Provost Award Program, \$7,320. Funded.

2006 Improving Academic Achievement in Low-Income Children: Applying Executive Function
Principles in a School- and Family-Based Intervention. Application submitted to University of Northern
Colorado, SPARC, REDI Fellowship Program. 2 years; \$15,000. Funded.

2000 A meta-analysis of treatment outcome in early-treated phenylketonuria. National Institutes of
Health, NICHD (commissioned study for the Consensus Development Conference on Phenylketonuria);
\$45,000

1999-01 Structural equation model of executive function in young adults National Science Foundation,
POWRE program; \$75,000

1988-90 Psychosocial development in children born preterm. March of Dimes; \$44,000.

1988-90 Developmental and dietary effects on specific cognitive skills in early-treated PKU" March of
Dimes; \$44,000.

1986-88 Prefrontal lobe function in children with early-treated PKU. March of Dimes; \$50,000.

1985-87 Executive function skills in two clinical groups: early-treated PKU and attention deficit
disorder. NIMH, NRSA; \$38,000.