

Neha P. Gothe, Ph.D.

University of Illinois at Urbana Champaign
Assistant Professor - Kinesiology and Community Health
Affiliate Faculty – Beckman Institute for Advanced Science and Technology
Director – Exercise Psychology Lab (www.epl.illinois.edu)

350 Freer Hall, 906 S. Goodwin Ave.,
 Urbana, Illinois - 61801

Tel: 217-300-6183
 E-mail: npg@illinois.edu

Education

- 2013** *Doctor of Philosophy* - University of Illinois at Urbana Champaign, USA
 Department of Kinesiology and Community Health
 Advisor: Dr. Edward McAuley, Major: Kinesiology
- 2013** *Master of Science* - University of Illinois at Urbana Champaign, USA
 Department of Kinesiology and Community Health
 Advisor: Dr. Edward McAuley, Major: Kinesiology
- 2007** *Master of Arts* – University of Mumbai, India
 Department of Applied Psychology
 Advisors: Drs. Gautam Gawli and Priscilla Paul, Major: Counseling Psychology
- 2005** *Bachelor of Arts* - University of Mumbai, India
 D.G. Ruparel College
 Major: Psychology
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Professional Experience

USA, 2008-present

- 08/2017- present *Assistant Professor*, Department of Kinesiology and Community Health,
 University of Illinois at Urbana Champaign, Urbana, Illinois
- 08/2013- 07/2017 *Assistant Professor*, Division of Kinesiology, Health and Sport Studies
 Wayne State University, Detroit, Michigan
- 06/2016- 07/2017 Part-time Faculty, Department of Psychiatry and Behavioral
 Neurosciences, School of Medicine, Wayne State University, Detroit,
 Michigan
- 08/2008-07/2013 *Graduate Research Assistant*, Exercise Psychology Lab, Department of
 Kinesiology and Community Health, University of Illinois at Urbana
 Champaign, Urbana, Illinois

India, 2003-2008

- 06/2007-05/2008 *Lecturer*, Department of Psychology, South Indian Education Society's
 College for Arts and Science, Sion, Mumbai

- 06/2007-05/2008 *Visiting Faculty – Psychology, Mumbai University Institute of Chemical Technology, Matunga, Mumbai*
- 06/2005-05/2008 *Lecturer in German, D.G. Ruparel College of Arts, Science and Commerce, Mahim, Mumbai*
- 06/2003-05/2006 *Instructor in German, Center for Excellence - Academy for Foreign Languages, Mumbai*

Research Experience

Ongoing Projects:

Effects of Long-term Yoga Practice on Cognition, Brain Structure and Function

A cross sectional study examining the differences in cognitive functioning, assessed using neuropsychological tests and magnetic resonance imaging techniques among yoga experts and age-, sex-matched control participants.

Role: Principal Investigator

Immediate and Delayed Acute Effects of Yoga and Interval-based Exercise on Cognitive Function

A repeated measures study examining the acute (immediate) effects of a 20-minute yoga session vs. a 20-minute high intensity interval exercise session on cognitive function in college students.

Role: Principal Investigator

Physical Activity and Well-being in Formal and Informal Caregivers

A cross sectional study examining physical activity levels, patterns and preferences among formal (paid) and informal (unpaid) caregivers to improve psychological well-being.

Role: Principal Investigator

Exercise Preferences and Quality of Life among Cancer Survivors

A pilot cross sectional study examining physical activity and sleep patterns in cancer survivors across various stages and types of cancer and its associations with well-being and quality of life.

Role: Principal Investigator

Completed Projects:

Correlates of Physical Activity and Functional Fitness in Urban African American Older Adults (National Institutes of Health, P30 AG015281; 2014 – 2015)

A cross sectional study designed to improve our understanding of the factors that influence physical activity in African American older adults living in urban settings by utilizing the social cognitive theory framework.

Role: Principal Investigator, Michigan Center for Urban African Aging Research Pilot Grant

Effects of Regular Yoga Practice on Cognition in College Students (2014 – 2017)

A non-randomized semester long trial examining the effects of 12-weeks of yoga practice in comparison with aerobic exercise on cognition in college students participating in the Lifetime Fitness Activities at WSU campus.

Role: Principal Investigator

Patterns of Physical Activity, Cognition and Functional Fitness in Stroke Survivors (2016 - 2017)

A cross sectional study examining level and pattern of physical activity, cognitive functioning and functional fitness in stroke survivors.

Role: Principal Investigator

Comparing Physical Activity Monitors against Energy Expenditure assessed using a Cardiovascular Fitness Test (2015-2016)

A study comparing estimates of energy expenditure from a variety of activity monitors (Basis®, FitBit®, Polar®, Actigraph®, JawBone®) at low, moderate, and high intensities against cardiorespiratory energy expenditure in a sample of college students.

Role: Principal Investigator

Stretching & Yoga Exercise Trial (SAY Exercise Trial – dissertation 2012-2013)NCT01650532

A randomized controlled trial examining the effects of an 8-week intensive yoga intervention on cognition and functional fitness in older adults in comparison to an attentional control stretching group.

Role: Principal Investigator

Advisor: Edward McAuley

Study of Aerobic and Yoga Exercise (SAY Exercise – independent study 2011-2012)

A pilot study investigating acute effects of 20-minute yoga and aerobic exercise sessions on cognition and affect in college students.

Role: Principal Investigator

Advisor: Edward McAuley

Fit & Active Seniors Trial (NCT01472744 – FAST, 2011-2013)

A 6-month randomized controlled exercise intervention examining the effects of an aerobic dance program and a stretching, strengthening, and balance program on brain structure and function, cardiorespiratory fitness, physical function, and quality of life in older adults.

Principal investigators: Arthur Kramer, Edward McAuley

Role: Research assistant

Activity, Gait, and Efficacy (NCT01030419 - AGE-II, 2009-2013)

A randomized controlled trial examining the effects of a DVD-delivered, home-based exercise program consisting of flexibility, toning, and balance exercises on functional limitations and quality of life among older adults.

Principal investigator: Edward McAuley

Role: Research assistant

Healthy, Active, Lifestyle Trial (HALT, 2007-2009)

A 12-month randomized controlled exercise intervention examining the effects of aerobic activity on fitness, cognitive function, immunological markers, and psychosocial factors in older

adults.

Principal investigators: Arthur Kramer, Edward McAuley

Role: Research assistant

Peer-Reviewed Publications

1. **Gothe, N.P.** (2017, in press). Correlates of Physical Activity in Urban African American Adults and Older Adults: Testing the Social Cognitive Theory. *Annals of Behavioral Medicine*.
2. Engels, H.J., Kendall, B., Fahlman, M.M., **Gothe, N.P.**, & Bourbeau, K. (2017, in press). Salivary Immunoglobulin A in Healthy Adolescent Females: Effects of Maximal Exercise, Physical Activity, Body Composition, and Diet. *The Journal of Sports Medicine and Physical Fitness*. DOI: 10.23736/S0022-4707.17.07845-8
3. Burzynska, A. Z., Jiao, Y., Knecht, A. M., Fanning, J., Awick, E. A., Chen, T., **Gothe, N.P.**, Voss, V.W., McAuley, E. & Kramer, A. F. (2017). White matter integrity declined over 6-months, but dance intervention improved integrity of the fornix of older adults. *Frontiers in Aging Neuroscience*, 9. DOI: 10.3389/fnagi.2017.00059
4. **Gothe, N.P.**, Kramer A.F & McAuley, E. (2017). Hatha Yoga Practice Improves Attention and Processing Speed in Older Adults: Results from an 8-week Randomized Control Trial. *Journal of Alternative and Complementary Medicine*, 23(1), 35-40. DOI: 10.1089/acm.2016.0185
5. **Gothe, N.P.**, Keswani, R. & McAuley, E. (2016). Yoga Practice Improves Cognition by Attenuating Stress Levels. *Biological Psychology*, 121, 109-116. DOI: 10.1016/j.biopsycho.2016.10.010
6. Fanning, J., Porter, G., Awick, E.A., Wójcicki, T.R., **Gothe, N.P.**, Roberts, S.R., Ehlers, D.K., Motl, R.W., & McAuley, E. (2016). Effects of a DVD-delivered exercise program on patterns of sedentary behavior in older adults: a randomized controlled trial. *Preventive Medicine Reports*, 3, 238-243. DOI: 10.1016/j.pmedr.2016.03.005
7. Fanning, J., Awick, E.A., Wójcicki, T.R., **Gothe, N.P.**, Roberts, S.A., Ehlers, D.K., Motl, R.W., & McAuley, E. (2016). Effects of a DVD-delivered exercise intervention on maintenance of physical activity in older adults. *Journal of Physical Activity and Health*, 13(6), 594-598. PMID:26595937, DOI: 10.1123/jpah.2015-0173
8. Oberlin, L.E., Verstynen, T.D., Burzynska, A.Z., Voss, M.W., Prakash, R.S., Chaddock-Heyman, L., Wong, C.N., Fanning, J., Awick, E., **Gothe, N.P.**, Phillips, S.M., Mailey, E., Ehlers, D., Olson, E.A., Wojcicki, T., McAuley, E., Kramer, A.F., Erickson, K.I. (2016). White matter microstructure mediates the relationship between cardiorespiratory fitness and spatial working memory in older adults. *NeuroImage*, 131, 91-101. DOI:10.1016/j.neuroimage.2015.09.053
9. Voss, M.W., Weng, T.B., Burzynska, A., Wong, C.N., Cooke, G.E., Clark, R., Fanning, J., Awick, E., **Gothe, N.P.**, Olson, E.A., McAuley, E., & Kramer, A.F. (2016) Fitness, but not

- physical activity, is related to functional integrity of brain networks associated with aging. *NeuroImage*, 131, 113-125. DOI:10.1016/j.neuroimage.2015.10.044
10. **Gothe, N.P.** & McAuley, E. (2016) Yoga is as good as Stretching-Strengthening Exercises in Improving Functional Fitness Outcomes: Results from a Randomized Controlled Trial. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 71 (3): 406-411. DOI:10.1093/gerona/glv127
 11. Kendall, B.J. & **Gothe, N.P.** (2015). The Effect of Aerobic Exercise Interventions on Mobility among Stroke Patients: A Systematic Review. *American Journal of Physical Medicine & Rehabilitation*, 95(3):214-224. DOI: 10.1097/PHM.0000000000000416
 12. Burzynska, A.Z., Wong, C.N., Chaddock-Heyman, L., Olson, E.A., **Gothe, N.P.**, Knecht, A., Voss, M.W., McAuley, E. & Kramer, A.F. (2016). White matter integrity, hippocampal volume, and cognitive performance of a world-famous nonagenarian track-and-field athlete. *Neurocase*, 22(2), 135-144. DOI: 10.1080/13554794.2015.1074709
 13. **Gothe, N.P.** & Kendall, B. (2016). Barriers, Motivations and Preferences for Physical Activity among African American Older Adults. *Gerontology and Geriatric Medicine*, 2, 1-8 DOI: 10.1177/2333721416677399.
 14. **Gothe, N.P.** & McAuley, E. (2015). Yoga and Cognition: A Meta-analysis of Chronic and Acute Effects. *Psychosomatic Medicine*. 77(7), 784-797. DOI: 10.1097/PSY.0000000000000218
 15. **Gothe, N. P.**, Wójcicki, T. R., Olson, E. A., Fanning, J., Awick, E., Chung, H. D., Zuniga, K.E., Mackenzie, M.J., Motl, R.W. & McAuley, E. (2015). Physical activity levels and patterns in older adults: the influence of a DVD-based exercise program. *Journal of Behavioral Medicine*, 38, 91-97. DOI: 10.1007/s10865-014-9581-6
 16. Burzynska, A.Z., Wong, C.N., Voss, M.W., Cooke, G.E., **Gothe, N.P.**, Fanning, J., et al. (2015) Physical Activity Is Linked to Greater Moment-To-Moment Variability in Spontaneous Brain Activity in Older Adults. *PLoS ONE* 10(8): e0134819. DOI:10.1371/journal.pone.0134819
 17. **Gothe, N. P.**, Kramer, A. F., & McAuley, E. (2014). The Effects of an 8-Week Hatha Yoga Intervention on Executive Function in Older Adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 69(9), 1109-1116. DOI: 10.1093/gerona/glu095
 18. Mailey, E., **Gothe, N.P.**, Wójcicki, T.R., Szabo, A.N., Olson, E.A., Mullen, S.P., Fanning, J.T., Motl, R.W. & McAuley, E. (2014). Influence of allowable interruption period on estimates of accelerometer wear time and sedentary time in older adults. *Journal of Aging and Physical Activity*. 22(2), 255-260. DOI: 10.1123/japa.2013-0021
 19. **Gothe, N.P.**, Fanning, J., Awick, E., Chung, D., Wójcicki, T.R., Olson, E.A., Mullen, S.P., Voss, M., Erickson, K.I., Kramer, A.F. & McAuley, E. (2014). Executive function processes predict mobility outcomes in older adults. *Journal of the American Geriatrics Society*, 62(2), 285-290. DOI: 10.1111/jgs.12654

20. Burzynska, A.Z., Chaddock-Heyman, L., Voss, M.W., Wong, C.N., **Gothe, N.P.**, Olson, E.A., Knecht, A., Lewis, A., Cooke, G., Wojcicki, T.R., Fanning, J., Chung, H.D., Awick, E., McAuley, E., Kramer, A.F. (2014). Physical activity and cardiorespiratory fitness are beneficial for aging white matter. *PLOS One*. 9(9):e107413 DOI: 10.1371/journal.pone.0107413
21. Leckie, R. L., Oberlin, L. E., Voss, M. W., Prakash, R. S., Szabo-Reed, A., Chaddock-Heyman, L., Phillips, S.M., **Gothe, N.P.**, Mailey, E., Vieira-Potter, V.J., Martin, S.A., Pence, B.D., Lin, M., Parasuraman, R., Greenwood, P.M., Fryxell, K.J., Woods, J., McAuley, E., Kramer, A.F. & Erickson, K. I. (2014). BDNF mediates improvements in executive function following a 1-year exercise intervention. *Frontiers in Human Neuroscience*, 8, 985. DOI: 10.3389/fnhum.2014.00985
22. Voss, M.W., Heo, S., Prakash, R.S., Erickson, K.I., Alves, H., Chaddock, L., Szabo, A.N., Mailey, E.L., Wójcicki, T.R., White, S.M. and **Gothe, N.P.**, (2013). The influence of aerobic fitness on cerebral white matter integrity and cognitive function in older adults: Results of a one-year exercise intervention. *Human Brain Mapping*, 34(11), 2972-2985. DOI: 10.1002/hbm.22119
23. Mullen, S.P., Wójcicki, T.R., Mailey, E.L., Szabo, A.N., **Gothe, N.P.**, Olson, E.A., Fanning, J., Kramer, A. and McAuley, E., 2013. A profile for predicting attrition from exercise in older adults. *Prevention Science*, 14(5), 489-496. DOI: 10.1007/s11121-012-0325-y
24. McAuley, E., Wójcicki, T.R., **Gothe, N.P.**, Olson, E.A., Szabo, A.N., Fanning, J., Mailey, E.L., Phillips, S.M., Motl, R.W., Mullen, S.P. (2013). Effects of a DVD-Delivered Exercise Intervention on Physical Function in Older Adults. *Journal of Gerontology: Medical Sciences*, 68(9), 1076-1082. DOI: 10.1093/gerona/glt014
25. **Gothe, N.P.**, Pontifex, M.B., Hillman, C.H. & McAuley, E. (2013). The Acute Effects of Yoga on Executive Function. *Journal of Physical Activity and Health*, 10(4), 488-495. PMID: 22820158
26. Voss, M.W., Erickson, K.I., Prakash, R.S., Chaddock, L.C., Kim, J.S., Alves, H., Szabo, A., White, S.M., Wójcicki, T.R., Mailey, E.L., Olson, E.A., **Gothe, N.P.**, Potter, V.V., Martin, S.A., Pence, B.D., Cook, M.D., Woods, J.A., McAuley, E., & Kramer, A.F. (2013). Neurobiological markers of exercise-related brain plasticity in older adults. *Brain, Behavior, and Immunity*, 28, 90-99. DOI: 10.1016/j.bbi.2012.10.021
27. Mullen, S.P., **Gothe, N.P.**, McAuley, E. (2013). Evaluation of the factor structure of the Rosenberg Self-Esteem Scale in older adults. *Personality and Individual Differences*. 54(2), 153-157. DOI: 10.1016/j.paid.2012.08.009
28. McAuley, E., Wójcicki, T.R., White, S.M., Mailey, E.L., Szabo, A.N., **Gothe, N.P.**, Olson, E.A., Mullen, S.P., Fanning, J., Motl, R.W. and Rosengren, K., 2012. Physical activity, function, and quality of life: Design and methods of the FlexToBa™ trial. *Contemporary clinical trials*, 33(1), 228-236. DOI: 10.1016/j.cct.2011.10.002
29. Verstynen, T., Lynch, B., Miller, D., Voss, M., Prakash, R., Chaddock, L., Basak, C., Szabo, A., Olson, E., Wojcicki, T., Fanning, J., **Gothe, N.P.**, McAuley, E., Kramer, A., & Erickson,

- K. R. (2012). Caudate nucleus volume mediates the link between cardiorespiratory fitness and cognitive flexibility in older adults. *Journal of Aging Research*, 2012:939285 DOI: 10.1155/2012/939285
30. Mullen, S. P., Olson, E. A., Phillips, S. M., Szabo, A. N., Wójcicki, T. R., Mailey, E. L., **Gothe, N.P.**, Fanning, J. T., Kramer, A.F. & McAuley, E. (2011). Measuring enjoyment of physical activity in older adults: invariance of the physical activity enjoyment scale (PACES) across group and time. *International Journal of Behavioral Nutrition and Physical Activity* 2011, 8:103. DOI: 10.1186/1479-5868-8-103
 31. Szabo, A. N., McAuley, E., Erickson, K. I., Voss, M., Prakash, R. S., Mailey, E. L., Wójcicki, T. R., White, S. M., **Gothe, N.P.**, Olson, E. A. & Kramer, A. F. (2011). Cardiorespiratory fitness, hippocampal volume, and frequency of forgetting in older adults. *Neuropsychology*, 25(5), 545-553. DOI: 10.1037/a002273
 32. McAuley, E.M., Mullen, S. P., Szabo, A. N., White, S. M., Wójcicki, T. R., Mailey, E. L., **Gothe, N.P.**, Olson, E. A., Voss, M., Erickson, K., Prakash, R., & Kramer, A. (2011). Self-regulatory processes and exercise adherence in older adults: Executive function and self-efficacy effects. *American Journal of Preventive Medicine*, 41(3), 284-290. DOI: 10.1016/j.amepre.2011.04.014
 33. **Gothe, N.P.**, Mullen, S.P., Wójcicki, T.R., Mailey, E.L., White, S.M., Olson, E.A., Szabo, A.N., Kramer, A.F., & McAuley, E. (2011). Trajectories of change in self-esteem in older adults: Exercise intervention effects. *Journal of Behavioral Medicine*, 34, 298-306. DOI: 10.1007/s10865-010-9312-6
 34. McAuley, E., Szabo, A. N., Mailey, E. L., Erickson, K. I., Voss, M., White, S. M., Wójcicki, T. R., **Gothe, N.P.**, Olson, E. A., Mullen, S. P., & Kramer, A. F. (2011). Non-exercise estimated cardio-respiratory fitness: Associations with brain structure and function in older adults. *Mental Health & Physical Activity*, 4, 5-11. DOI:10.1016/j.mhpa.2011.01.001
 35. Szabo, A.N., Mullen, S.P., White, S.M., Wójcicki, T.R., Mailey, E.L., **Gothe, N.P.**, Olson, E.A., Fanning, J., Kramer, A.F., & McAuley, E. (2011). Longitudinal invariance of the Abbreviated Late Life Function and Disability Instrument in Healthy Older Adults. *Archives of Physical Medicine and Rehabilitation*, 92, 785-791. DOI: 10.106/j.ampr.2010.12.033
 36. McAuley, E., Mailey, EL., Mullen, SP., Szabo, AN., Wójcicki, TR., White, SM., **Gothe, N.P.**, Olson, E. A., & Kramer, AF. (2011). Growth trajectories of exercise self-efficacy in older adults: Influence of measures and initial status. *Health Psychology*, 30, 75-83. DOI: 10.1037/a0021567.
 37. Voss, M. W., Ruchika, S. P., Mailey, E. L., Erickson, K. I., Basak, C. Chaddock, L., Kim, J. S., Alves, H., Heo, S., Szabo, A., White, S. W., Wójcicki, T. R., **Gothe, N.P.**, Olson, E. A., McAuley, E., & Kramer, A. F. (2010). Plasticity of brain networks in a randomized intervention trial of exercise training in older adults. *Frontiers in Neuroscience*, 2(32). DOI: 10.3389/fnagi.2010.00032

Invited Review:

38. McAuley, E., Szabo, A., **Gothe, N.P.**, & Olson, E. A. (2011). Self-efficacy: Implications for physical activity, function, and functional limitations in older adults. *American Journal of Lifestyle Medicine*, 5(4), 361-369. DOI: 10.1177/1559827610392704

Book Chapter:

39. McAuley, E., Mailey, E. L., Szabo, A. N., & **Gothe, N.P.** (2012). Physical activity and the personal agency: Self-efficacy as a determinant, consequence, and mediator. In Martin Ginis, K. A. (Ed.), *Handbook of Physical Activity and Mental Health*. London: Routledge

Published Abstracts

1. Bourbeau, K. C., Kendall, B., & Gothe, N.P. (2017). Relationship Between Light Physical Activity and Functional Fitness in Stroke Survivors. *Annals Of Behavioral Medicine*, 51(Abtract Supplement), s388–s390.
2. Gothe, N. P., & Damoiseaux, J. S. (2017). Differences In Brain Structure And Function Among Yoga Experts And Controls: 836 Board#15, *Medicine & Science in Sports & Exercise*, 49(5S), 214.
3. Kendall, B. J., Bellovary, B., & Gothe, N. (2017). Reliability of Activity Monitors for Tracking Steps and Estimating Energy Expenditure during a Graded Maximal Treadmill Test. *Annals of Behavioral Medicine*, 51(Abtract Supplement), s1307–s1308.
4. Renn, B. N., Gothe, N., Aguinaga, S., Awick, E., Bourbeau, K. C., & Winter, S. J. (2017). Physical Activity and Wellness: Implications for Interventions in Aging Populations. *Annals of Behavioral Medicine*, , 51(Abtract Supplement), s385.
5. Snapp, E., Kendall, B. J., & Gothe, N. (2017). Physical Activity, Self-reported Physical Functioning, and Quality of Life in Stroke Survivors. *Annals of Behavioral Medicine*, 51(Abtract Supplement), s1328–s1329.
6. **Gothe, N.** (2016) Accelerometer and Self-Reported Physical Activity among African American Older Adults. *Annals of Behavioral Medicine*, 50(Abtract Supplement), s284
7. Kendall, B. & **Gothe, N.** (2016) Barriers, Motivations and Preferences for Physical Activity among African American Older Adults. *Annals of Behavioral Medicine*, 50(Abtract Supplement), s320
8. **Gothe, N.**, Aguiñaga, S., Ehlers, D., Resnick, B., & Rejeske, J. (2016) Aging Well: Optimizing Physical Function and Cognitive Health. *Annals of Behavioral Medicine*, 50(Abtract Supplement), s204
9. Ehlers, D., Fanning, J., **Gothe, N.**, Awick, E., Cooke, G. Burzynska, A., Wong, C., Kramer, A. & McAuley, E. (2016). Does Baseline Executive Function Predict change in

- Lower-body Strength in Older Adults Enrolled in an Exercise Trial? *Annals of Behavioral Medicine*, 50(Abtract Supplement), s204
10. Winter, S., McMohan, S., **Gothe, N.** & Castro-Sweet, C. (2016). There's an App for that – Seniors Getting Active! Using Technology to Promote Physical Activity in Older adults. *Annals of Behavioral Medicine*, 50(Abtract Supplement), s283
 11. **Gothe, N.** (2015). Physical activity, mobility and cognitive performance among African American older adults. *The Gerontologist*, 55(S2):212.
 12. **Gothe, N.** & McAuley, E. (2015). Working memory and inhibitory control predict mobility outcomes in middle aged and older adults. *Annals of Behavioral Medicine*, 49(Abtract Supplement), s251
 13. Kendall, B & **Gothe, N.** (2015). The effect of aerobic exercise interventions on mobility among stroke patients: A review and meta-analysis. *Rapid Communications Abstract, Society of Behavioral Medicine*, 101
 14. **Gothe, N.**, McAuley, E. & Kramer, A. (2014). The Effects of an 8-week Hatha Yoga Intervention on Executive Function in Older Adults. *Annals of Behavioral Medicine*, 47(Abtract Supplement), s179
 15. **Gothe, N.**, Wojcicki, T., Olson, E., Fanning, J., Awick, E., Motl, R. & McAuley, E. (2014). Physical Activity Levels and Patterns in Older Adults: The Influence of a DVD-Delivered Exercise Program. *Annals of Behavioral Medicine*, 47(Abtract Supplement), s130
 16. **Gothe, N.**, Keswani, R. & McAuley, E. (2013) Yoga Practice Improves Working Memory Capacity by Attenuating Stress Levels. *The Gerontologist*, 53(S1):317.
 17. **Gothe, N.**, Fanning, J., Awick, E., Chung, D., Wójcicki, T.R., Olson, E.A., Mullen, S.P., Voss, M., Erickson, K.I., Kramer, A.F. & McAuley, E. (2013). Executive function processes predict mobility outcomes in older adults. *The Gerontologist*, 53(S1):7.
 18. Awick, E., Wójcicki, T., **Gothe, N.**, Olson, E., Fanning, J., Kramer, A., & McAuley, E., (2013). Exercise training interventions improve health related quality of life but not global quality of life. *Annals of Behavioral Medicine*, 45(Abtract Supplement), s227.
 19. Fanning, J. T., Wójcicki, T., **Gothe, N.**, Olson, E., Motl, R. W., & McAuley, E. (2013). Trajectories of change in exercise self-efficacy in a home-based physical activity trial. *Annals of Behavioral Medicine*, 45(Abtract Supplement), s254.
 20. Wójcicki, T. R., **Gothe, N.**, Olson, E. A., Fanning, J. T., Awick, E., Chung, H. D., Motl, R. W., & McAuley, E. (2013). Functional limitation in older adults: The influence of self-efficacy, physical activity, and functional performance. *Society of Behavioral Medicine, Rapid Communications*, 122.

21. Weinstein, A. M., Verstynen, T. D., Prakash, R. S., Voss, M. W., Chaddock, L., Szabo, A., Wójcicki, T. R., **Gothe, N. P.**, Olson, E. A., Fanning, J., McAuley, E., Kramer, A. F., & Erickson, K. I. (2012). Gray matter volume, cardiorespiratory fitness, and cognitive function: A whole brain, voxel-based mediation analysis [abstract]. *Society of Neuroscience*, 693.01.
22. Wong, C. N., Voss, M. W., Chaddock, L., Baniqued, P. L., Cooke, G., Monti, J. M., Szabo, A. N., Wójcicki, T. R., **Gothe, N.**, Olson, E. A., Fanning, J., McAuley, E., & Kramer, A. F. (2012). Age-related shifts in cognitive control strategies [abstract]. *Society of Neuroscience*, 805.16.
23. Wong, C.N., Voss, M.W., Chaddock, L, Baniqued, P.L., Cooke, G., Monti, J.M., Szabo, A.N., Wójcicki, T.R., **Gothe, N.**, Olson, E.A., Fanning, J., McAuley, E., & Kramer, A.F. Cognitive control related brain function is altered by aerobic fitness level in older adults. Society for Neuroscience, (October, 2012), New Orleans, LA.
24. Burzynska, A.Z., Chaddock-Heyman, L., Wong, C.N., Voss, M.W., Olson, E., **Gothe, N.**, Lewis, A., Wojcicki, T., Fanning, J., Chung, H.D., Awick, E., McAuley, E., & Kramer, A.F. *Positive effects of physical exercise and aerobic activity on white matter in old age.* Poster presented at the 23rd Annual Neuroscience Conference, 'Brain Plasticity & Neurorehabilitation, Toronto, Canada, March 2013.
25. **Gothe, N.** & McAuley, E. Yoga practice improves attention in older adults: Preliminary results from a pilot RCT. *Annals of Behavioral Medicine* 45(2), (Abstract Supplement), s250.
26. **Gothe, N.**, Mullen, S.P. & McAuley, E. The Effects of Yoga on Cognition: A Meta-analysis of Chronic and Acute Yoga Effects. *Annals of Behavioral Medicine* 45(2), (Abstract Supplement), s138.
27. **Gothe, N.** & McAuley, E. (2012) Yoga Offers Similar Functional Benefits as Stretching-Strengthening Exercises: A Pilot RCT. *The Gerontologist*, 52(S1), p809.
28. Monti, J.M., Voss, M.W., Wong, C.N., Szabo, A.N., Cooke, G., Chaddock, L., Baniqued, P.L., Wójcicki, T. R., **Gothe, N.**, Olson, E.A., Fanning, J.F., McAuley, E., Cohen, N. & Kramer, A.F. Physical activity and aerobic fitness are associated with greater relational memory and hippocampal function in older adults. Poster presented at the Annual Meeting of the Society for Neuroscience, New Orleans, LA, October 2012.
29. **Gothe, N.**, Hillman, C.H. & McAuley, E. (2012) The Effect of Acute Yoga and Aerobic Exercise on Word Memory and Anxiety. *BMC Complementary and Alternative Medicine* 12 (Supplement 1), p127
30. **Gothe, N.**, Hillman, C.H. & McAuley, E. (2012) Acute Yoga versus Aerobic Exercise: Effects on Inhibition and Working Memory. *Annals of Behavioral Medicine*, 43(Abstract Supplement), s39

31. Mullen, S. P., Wójcicki, T. R., Mailey, E. L., Szabo, A. N., **Gothe, N.**, Olson, E. A., Fanning, J. T., Kramer, A., & McAuley, E. (2012) A Profile for Predicting Attrition from Exercise in Older Adults. *Annals of Behavioral Medicine*, 43(Abstract Supplement), s120
32. Olson, E. A., Wójcicki, T. R., Szabo, A. N., Mailey, E. L., Mullen, S. P., **Gothe, N.**, Fanning, J. T., & McAuley, E. (2012) Advanced Lower Extremity Function in Older Adults: Intervention Effects. *Annals of Behavioral Medicine*, 43(Abstract Supplement), s79
33. Mailey, E. L., **Gothe, N.**, Motl, R. W., & McAuley, E. (2011) Accelerometer data reduction: Is there an optimal interruption period for older adults? *The Gerontologist*, 51, 604
34. Wong, C. N., Voss, M. W., Basak, C., Prakash, R., Erickson, K. I., Chaddock, L., Kim, J., Phillips, S. M., Wojcicki, T. W., Mailey, E. L., Szabo, A., **Gothe, N.**, Olson, E., McAuley, E., & Kramer, A. F. *A Profile of Brain Activation as a Function of Aerobic Fitness in the Dual-Task*. Poster presented at The Society for Neuroscience Annual Meeting, Washington D.C., November 2011.
35. McAuley, E., Wójcicki, T. R., White, S. M., Mailey, E. L., Szabo, A. N., **Gothe, N.**, Olson, E. A., Mullen, S. P., Fanning, J. T., Motl, R. W., Rosengren, K., & Estabrooks, P. *Physical Activity, Function, and Quality of Life: Design and Methods of the FlexToBa™ Trial*. Presented at the HEPA Europe 7th Annual Meeting, Amsterdam, Netherlands, October 2011
36. Voss, M. W., Erickson, K. I., Prakash, R. S., Basak, C., Chaddock, L., Kim J. S., Alves, H., Heo, S., Szabo, A. N., White, S. M., Wójcicki, T. R., Mailey, E. L., Olson, E. A., **Gothe, N.**, Potter, V. V., Martin, S. A., Pence, B. D., Cook, M. D., Woods, J.A., McAuley, E., & Kramer, A. F. *Neurobiological markers of plasticity of brain networks in a randomized intervention trial of exercise training in older adults*. Health: Attitudes, Biology, Information, Technology, Society Initiative at the Beckman Institute, Campaign, Illinois, April 2011.
37. **Gothe, N.**, Mullen, S.P., Wójcicki, T.R., Mailey, E.L., White, S.M., Olson, E.A., Szabo, A.N., Kramer, A.F., & McAuley, E. (2011) Trajectories of change in self-esteem in older adults: Exercise intervention effects. *Annals of Behavioral Medicine*, 41(Abstract Supplement), s227.
38. **Gothe, N.**, & McAuley, E. (2011) Physical Activity and Self Efficacy patterns: Cross cultural differences in American and Indian college students. *Annals of Behavioral Medicine*, 41(Abstract Supplement), s224.
39. Mullen, S. P., Mailey, E. L., White, S. M., Wójcicki, T. R., Szabo, A. N., **Gothe, N.**, Olson, E. A., Kramer, A. F., & McAuley, E. (2011) Physical activity, self-efficacy, and functional limitations in older adults: A randomized control trial. *Annals of Behavioral Medicine*, 41(Abstract Supplement), s185

40. Mailey, E. L., Szabo, A. N., Wójcicki, T. R., **Gothe, N.**, White, S. M., Olson, E. A., Kramer, A. F., & McAuley, E. Physical activity and social support in older adults. Poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, May 2010.
41. White, S. M., Mailey, E. L., Wójcicki, T. R., Szabo, A. N., **Gothe, N.**, Olson, E. A., Kramer, A. F., & *McAuley, E.* Physical activity and physical function in older adults. Poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, May 2010.
42. Voss, M.W., Prakash, R.S., Erickson, K.I., Basak, C., Chaddock, L., Kim, J.S., Alves, H., Heo, S., Szabo, A., White, S.M., Wojcicki, T.R., Mailey, E.L., **Gothe, N.**, Olson, E.A., McAuley, E., & Kramer, A.F. Plasticity of brain networks in a randomized intervention trial of exercise training in older adults. Poster presented at the Cognitive Aging Conference, Atlanta, GA, May 2010.
43. **Gothe, N.**, Klamm, E.L., Wójcicki, T.R., White, S.M., Szabo, A.N., & McAuley, E. (2010) Physical Activity, Self-Efficacy and Self-Esteem: Hierarchical and longitudinal relationships as a function of an exercise intervention. *Annals of Behavioral Medicine*, 39(Abstract Supplement), s30.
44. **Gothe, N.**, Szabo, A. N., Klamm, E. L., Wójcicki, T.R., White, S. M. & McAuley, E. Independent Effects of Environment, Self-Efficacy and Self-Regulation on Physical Activity in Older Women. Poster presented at The Annual Meeting of the Society of Behavioral Medicine, Montréal, QC, April 2009.
45. Diwan, N., **Gothe, N.**, Narayanan, A., Raut, A. & Majumdar, A. *Aging and Quality of Life*. Paper presentation at PSYCON 2003, the University Grants Commission (UGC) Conference held at Swami Vivekanand College, Mumbai, India

Research Grants and Funding

- | | |
|---|--|
| <p>Office of the Vice President for Research, Wayne State University
Greenwald & Naar-King (Co-Is)
Diabetes Obesity Team Science
<i>Project: Physical Activity in Minority Youth: Effects on Eating, Cognition, and Metabolism</i>
An integrative analysis of the dose-dependent (lower vs. higher intensity) effects of acute exercise (vs. sedentary control condition) on metabolism, cognition and food choice/intake in 40 adolescents with current Class I and II obesity (BMI: 30-40 kg/m²).
Budget: \$65,000 direct costs</p> | <p>06/2015 – 11/2016
Gothe, N. (Co-I)</p> |
| <p>Office of the Vice President for Research, Wayne State University
MRI Pilot Project Program: Developmental Award
<i>Project: Effects of Long-term Yoga Practice on Cognition, Brain Structure and Function</i></p> | <p>03/2015 – 12/2015
Gothe, N. (PI)</p> |

A cross sectional study examining the differences in cognitive functioning, assessed using neuropsychological tests and magnetic resonance imaging techniques among yoga experts and age-, sex-matched control participants.

Budget: \$8,865 direct costs

National Institutes of Health, P30 AG015281 Jackson, J. (PI) 09/2012 – 06/2017
Michigan Center for Urban African Aging Research Pilot Grant

Gothe, N. (PI-pilot) 09/2014 – 06/2015

Project: Correlates of Physical Activity and Functional Fitness in Urban African American Older Adults

A cross sectional study designed to improve our understanding of the individual and environmental factors that influence physical activity in African American older adults living in urban settings.

Budget: \$20,000 direct costs

National Institute on Aging, 1R01AG053952 09/2016 -05/2021

Co-PIs: Erickson, K., McAuley, E., Kramer, K.F., & Burns, J.

Gothe, N. (Consultant)

Project: Investigating Gains in Neurocognition in an Intervention Trial of Exercise.

A 12 month monitored exercise intervention with 3 arms 1) 150 minutes/week aerobic exercise, 2) 225 minutes/week aerobic exercise and 3) stretching and strengthening control, that investigates improvements in brain health in cognitively normal older adults.

Budget: \$21,994,979 direct costs

National Institute of Nursing Research, 1R01NR016093-01A1 02/2017 – 12/2021

PI: Larson, J.

Gothe, N. (Consultant)

Project: This project examines the effects of an exercise and behavioral program, called Active-Life, to promote physical activity in people with chronic obstructive pulmonary disease. A sedentary lifestyle is very common in older people with chronic disease and if this program is successful it will be used to promote physical activity and improve the health of people with chronic obstructive pulmonary disease.

Budget: \$349,380 (Y1) direct costs

Teaching Experience

University of Illinois at Urbana Champaign

2018-present **KIN 140 – Social Science of Human Movement**

This is one of the core courses in Kinesiology and is a course that meets general education requirements in the social and behavioral sciences: social sciences. The purpose of this class is to introduce students to the basic theoretical and practical concepts involved in the social scientific study of physical activity and sport.

2017-present **KIN 448 – Health and Exercise Psychology**

Graduate and undergraduate core course that provides an overview of physical activity as it relates to health and well-being including personality, anxiety, stress, cognition, depression, quality of life; epidemiology of physical activity in the US and across the world, theory and interventions of behavior change.

Wayne State University

- 2014-2017 **KIN 6310 - Physical Activity and Cognition**
 Graduate core course examining the role of physical activity in improving cognitive functioning across the lifespan, explore measures of physical activity and neuropsychological test batteries, review studies examining the effect of physical activity on cognition across children, adults and older adult populations, and examining the underlying mechanisms
- 2014-2017 **KIN 5523 - Physical Activity and Exercise Psychology**
 Graduate and undergraduate core course that provides an overview of physical activity as it relates to health and well-being including personality, anxiety, stress, cognition, depression, quality of life; epidemiology of physical activity in the US and across the world, theory and interventions of behavior change.
- 2013 **KIN 5522 - Health Psychology**
 Graduate and undergraduate core course that provides the foundations of health, research methods, biological foundations of health/illness, stress, nutrition, obesity, eating disorders, substance abuse and health, cardiovascular disease, diabetes and health, exercise and cancer; HIV, AIDS, and health; pain management and patient behavior, complementary and alternative medicine, health psychology across the life span

University of Illinois at Urbana Champaign

- 2011 **CPSC 542 - Applied Statistical Methods II** (Teaching Assistant)
 Principles of designing experiments and methods of analysis for various kinds of designs, experimental (completely randomized, randomized complete block, split plots, Latin square) and treatment (complete factorial); covariate analysis; use of SAS
- 2010 **CPSC 440 - Applied Statistical Methods I** (Teaching Assistant)
 Statistical methods involving relationships between populations and samples; collection, organization, and analysis of data, techniques in testing hypotheses with an introduction to regression, correlation, analysis of variance (limited to the completely randomized and randomized complete-block designs); use of SAS
- 2008-2009 **KIN 247 - Introduction to Sport Psychology** (Teaching Assistant)
 Analysis of the competitive sport process, with study of how personality and situational variables affect motivation, anxiety, and aggression in sport. Attention is given to the psychological skills needed by coaches and athletes for successful and enjoyable sports participation.

S.I.E.S. College of Arts, Science and Commerce, India

- 2007-2008 Lecturer in the department of Psychology. Courses taught:
 i) **Psychological Testing and Statistics**
 ii) **Counseling Psychology**
 iii) **Industrial and Organizational Psychology**

Guest Lectures

“Cognition and Exercise: Is there a link?” Community Outreach Talk via the University of Michigan and Wayne State University’s Michigan Center for Urban African American Aging Research Center (MCUAAAR), Healthier Black Elders Center, Boulevard Temple Rehabilitation, Detroit, Michigan, May 2016

“Physical Activity Interventions and Health Outcomes: Evidence from RCTs” Henry Ford Health Systems, General Epidemiology Meeting, Detroit, Michigan, March 2016

“Physical Activity Interventions and Health Outcomes: Evidence from RCTs” Karmanos Cancer Institute, Detroit, Michigan, January 2016

“Kinesiology – Evidence for Yoga and Exercise Psychology” Department of Applied Psychology, University of Mumbai, Kalina, Mumbai, India, June 2015

“Kinesiology – Evidence for Yoga and Exercise Psychology” Department of Psychology, D.G. Ruparel College, Mumbai, India, July 2015

“Physical Activity Interventions and Psychosocial Outcomes” Department of Psychology, Eastern Michigan University, Ypsilanti, Michigan, December 2014

“Physical Activity Interventions and Health Outcomes in Older Adults” Institute of Gerontology, Wayne State University, Detroit, Michigan, September 2014

“Health, Physical Activity and Fitness: Concepts and Measurement.” Department of Psychology, D. G. Ruparel College, Mumbai, India, June 2011

“Health and Exercise Psychology.” Department of Psychology & Department of Neuroscience, Sophia College, Mumbai, India, June 2011

Advising and Mentoring

Masters Students

Committee Chair:

Gianna Hill, MS Kinesiology, University of Illinois at Urbana Champaign

Derrick Palma, MEd Kinesiology, Wayne State University

Doctoral Students - Committee Member:

Nicholas Siekirk, PhD Kinesiology, Wayne State University

Aiman Sarhan, PhD Kinesiology, Wayne State University

Truc-Phuong Thi Vo, PhD Psychology, Wayne State University

Shannon Clark, PhD Psychology, Wayne State University

Bonita Jones, Doctor of Nursing Practice, Frontier Nursing University

James Scholar Honors Project (Undergraduate - UIUC)

Eunice Kim, KIN 140 – Spring 2018

Madison Catalano, Kin 140 – Spring 2018

Constantine Kass, Kin 448 - Fall 2017

Nicole Alberto, Kin 448 - Fall 2017

Masters in Kinesiology - Program Advising (WSU)

Shawn Zohr
Bryan Polce
Derrick Palma

Independent Study (Graduate and Undergraduate -WSU)

Manasi Mahajan, Fall 2016
Alicia Barcume, Fall 2016
Scott Pummill, Winter 2016
Bryan Polce, Winter 2016
Danielle Cantwell, Fall 2015
Shannon Hilton, Fall 2015
Anne VanTubergen, Fall 2014
Karen Sharkey, Fall 2014
Kari Kischnick, Fall 2014

Professional Service

University:

2015-2017 *Curriculum Committee - Member, College of Education, Wayne State University*
2014-2016 *Grievance Committee - Member, College of Education, Wayne State University*
2014-2015 *Graduate Professional Scholarship, Graduate School Selection Committee
Member, Wayne State University*
2015 *Scholarship Committee - Member, College of Education, Wayne State University*
2011-2012 *Advisory Council Member, Women's Resources Center, University of Illinois at
Urbana Champaign*
2011 *Facilitator, Center for Teaching Excellence, Graduate Academy for College
Teaching, University of Illinois at Urbana Champaign*

Professional Organizations:

2017-2019 *Co-chair, Aging Special Interest Group (SIG) The Society of Behavioral
Medicine – re-elected*
2016 *Chair, Awards Committee – Complementary and Integrative Medicine Special
Interest Group (SIG), The Society of Behavioral Medicine*
2014-2016 *Co-chair, Aging Special Interest Group (SIG) The Society of Behavioral
Medicine*

Grant Reviewer:

Israel Ministry of Science, Technology & Space, Track: *"Science, Technology and Innovation
for the Benefit of the Aging Population"* February 2015, September 2015

External Reviewer:

2016-present External Doctoral Committee of Life Science at Swami Vivekananda Yoga
Anusandhana Samsthana (S-VYASA University) Bangalore, India

Editorial Board:

2017-present Associate Editor, *BMC Complementary and Alternative Medicine*

2016-present Associate Editor, *BMC Geriatrics* (Section: Physical functioning, physical health and activity)

Journal Peer-Reviewer:

Canadian Journal of Aging, Sport Exercise and Performance Psychology, Journal of Physical Activity and Health, Journal of Sport and Exercise Psychology, Journal of Applied Sport Psychology, Journal of the American Aging Association, Journal of Alternative and Complementary Medicine, Medicine and Science in Sport and Exercise, Cancer Medicine, European Journal of Sport Science, Annals of Behavioral Medicine, Quality of Life Research

Abstract Reviewer:

2012-present - *Annual Meeting of the Society of Behavioral Medicine,*

2015-present - *Annual Meeting of the Gerontological Society of America,*

2015-present - *Researchers of Biobehavioral Health in Urban Settings Today (RoBUST) Symposium (Wayne State University).*

Honors and Awards

- ♦ ***Faculty Mentor Award*** – Wayne State University, Undergraduate Research Opportunities Program (UROP), March 2016
- ♦ ***Outstanding Student/Trainee Award*** in Evidence-Based Behavioral Medicine for abstract titled “*The Effects of an 8-week Hatha Yoga Intervention on Executive Function in Older Adults*”. Society of Behavioral Medicine, April 2014
- ♦ ***Paul D. Doolen Scholar Award*** in the Behavioral-Social Sciences, University of Illinois, 2013
- ♦ ***Laura J. Huelster Award Recipient***, Department of Kinesiology and Community Health, UIUC, March 2013
- ♦ ***Outstanding Student Abstract Award*** for dissertation abstract titled “*Yoga practice improves attention in older adults: Preliminary results from a pilot RCT*”. Physical Activity Special Interest Group (PA-SIG), Society of Behavioral Medicine, March 2013
- ♦ ***Outstanding Aging Research Poster Award*** for poster titled “*The Effects of Yoga on Cognition: A Meta-analysis of Chronic and Acute Effects*”. Aging Special Interest Group (Aging-SIG), Society of Behavioral Medicine, March 2013
- ♦ ***Meritorious Student Abstract Award*** for the dissertation abstract titled “*Yoga practice improves attention in older adults: Preliminary results from a pilot RCT*”. The Annual Meeting of the Society of Behavioral Medicine, March 2013
- ♦ ***Travel Grant Recipient***, University of Illinois Graduate College, Nov 2012, March 2013

- ♦ **Laura J. Huelster Award Recipient**, Department of Kinesiology and Community Health, UIUC, March 2012
- ♦ **Global Health Initiative Award Recipient**: Elected from the College of Applied Health Sciences to join a team of faculty and graduate students for a two-week observational experience in Ghana centered on healthcare in a resource limited setting and build partnerships in interdisciplinary global health research. UIUC, January 2012
- ♦ **Graduate Teaching Certificate**, Center for Teaching Excellence, UIUC, March 2011
- ♦ **Meritorious Student Abstract Award** for the abstract titled “*Trajectories of change in self-esteem in older adults: Exercise intervention effects*”. The Annual Meeting of the Society of Behavioral Medicine, April 2011
- ♦ **Instructor and Course Evaluation System: Outstanding Instructor** for CPSC 542 – Applied Statistical Methods II, UIUC, May 2011
- ♦ **Instructor and Course Evaluation System: Outstanding Instructor** for CPSC 440 – Applied Statistical Methods I, UIUC, December 2010
- ♦ **Travel Grant Recipient**, University of Illinois Graduate College, March 2009
- ♦ Prabhadevi J.P. Narayan Trophy for **Overall Proficiency**, D.G. Ruparel College, Mumbai, India (Academic Year 2004-2005)
- ♦ Late Nityanand Hankonkar Trophy for the **Best Leadership Qualities**, D.G. Ruparel College, Mumbai, India (Academic Year 2003- 2004)

Professional Memberships

2017-present: American College of Sports Medicine
2016-present: International Association of Yoga Therapists
2009-present: The Gerontological Society of America
2008-present: Society of Behavioral Medicine
2005-present: Bombay Psychological Association

Updated February 2018