Colin A. Armstrong, Ph.D.

Office Address: Vanderbilt Dayani Center for Health and Wellness

1500 Medical Center Drive Nashville, TN 37232-8285 Office: (615) 343-2808

Education & Clinical Training

California State University, Bakersfield. Graduated June 1990.

Bachelors of Science, Major: Psychology, Minor: Behavioral Sciences

San Diego State University / University of California, San Diego Joint Doctoral Program in Clinical Psychology.

Ph.D. in Clinical Psychology. Graduated June 1998.

Specialization: Health Psychology

Doctoral Dissertation: The Stages of Change in Exercise Adopting and Adherence:

Evaluation of Measures with Self-Report and Objective Data.

Vanderbilt University and The Department of Veterans Affairs Internship in Professional Psychology (Pre-doctoral Internship). Completed August 1997.

Primary Placement: Vanderbilt Dayani Center for Health and Wellness (focused on Clinical Health Psychology Services).

Secondary Placement: Transplant Service, Nashville V.A. Hospital.

Postdoctoral Training in Clinical & Corporate Health Psychology Services

Vanderbilt Dayani Center for Health and Wellness. A Two-Year Supervised Postdoctoral Training position sigh approximately 60% clinical time and 40% corporate. Completed August 1999.

Postdoctoral Training in Health Coaching: I've completed extensive training in Health and Executive Coaching and I teach in the <u>Vanderbilt Health Coaching Program</u>.

Intrinsic Coach Health & Productivity Coach Training Program

Potentials Realized Training in Group Health Coaching

Take Courage Training in Chronic Pain Health Coaching

MI Training Today: Introductory and Advanced Training in Motivational Interviewing

Wellcoaches Core Training & Certification Program for Health & Wellness Coaches

Wellcoaches Professional Coaching Training & Certification Program

Licensed Psychologist with designation as a Health Services Provider. Licensed since 1999, State of Tennessee #2245.

Academic Appointments:

1990 – 1998	Adjunct Assistant Professor of Psychology San Diego State University
2001 – 2016	Adjunct Assistant Professor of Psychology College of Arts and Science, Vanderbilt University
2011 - Present	Assistant Professor of Clinical Psychiatry and Behavioral Sciences Vanderbilt University School Of Medicine (Primary Appointment)
2014 - Present	Assistant Professor of Physical Medicine and Rehabilitation Vanderbilt University School Of Medicine (Secondary Appointment
2018 – Present	Adjunct Assistant Professor Department of Professional and Medical Education Meharry Medical College

Leadership in Professional Organization:

Nashville Area Psychological Association (NAPA):

President 2005 – 2006

Board Member 2001 – 2007

Award:

My practice (Dayani Health Psychology) was one of 27 clinical areas at Vanderbilt University Medical Center that received a Press Ganey <u>2019 Excellence in Patient Experience</u> award in recognition of exceptional performance and commitment to service excellence.

This award honors those clinical areas above the 90th percentile nationally based upon their patients' ratings.

- **Academic Teaching Activities:** (the following are examples, not a complete listing)
- **Vanderbilt Department of Preventive Medicine:** Lectures provided to VUSM Medical Students: <u>Understanding And Promoting Treatment Adherence</u> (2004 2007)
- CME Lectures: Lectures provided as part of CME courses at area hospitals for <u>Vanderbilt's Physician Liaison Department</u> on topics such as <u>Stress Management for the Physician</u> and <u>Promoting Treatment Adherence</u> (2004 2010)
- Vanderbilt Department of Psychiatry and Behavioral: Lectures provided to 2nd Year Residents: Promoting Medication Adherence and Promoting Exercise Motivation & Adherence (2006)
- Grand Rounds Presentation: Vanderbilt Department of Psychiatry and Behavioral Sciences: <u>Understanding and Enhancing Motivation for Exercise</u> (2013)
- Grand Rounds Presentation: Vanderbilt Department of Physical Medicine and Rehabilitation: <u>Understanding Treatment Nonadherence and Enhancing Motivation for Exercise & Other Health-Promoting Changes</u> (2015)
- Vanderbilt Physical Medicine and Rehabilitation Residency Program: Lecture provided to PM&R Residents: Lifestyle Modification (2017)
- **Meharry Medical College:** Lecture provided to Meharry Medical Students: <u>The Problem of</u> Treatment Nonadherence (2018).
- Vanderbilt University School of Medicine: Lectures provided to Vanderbilt Medical Students: <u>Psychology and Health Behavior</u> as part of the Brain, Behavior and Movement course. (2018 2019)
- Vanderbilt Department of Anesthesiology, Division of Pain Medicine: Lectures provided to Residents: <u>Understanding the Nature of Treatment Nonadherence</u> (2015 2020)
- Vanderbilt University School of Medicine: Lecture to VUSM Medical Students:

 <u>A Straightforward Pathway To Adding Greater Meaning & Purpose To Your Life... And Avoiding Professional Burnout</u> (2020)
- Vanderbilt Physical Medicine and Rehabilitation Residency Program: Lecture provided to PM&R Residents: Can Understanding Treatment Nonadherence Help Prevent Physician Burnout? (2020)

Academic Teaching Activities (continued)

Vanderbilt Health Coaching Certificate Program (2014 – Present)

I am one of the three founding faculty members of the Vanderbilt Health Coaching Program.

The goal of this program is to train credentialed healthcare providers in the science and skills needed for promoting health behavior change. This comprehensive training program is approved by the International Consortium for Health & Wellness Coaching (ICHWC).

This program consists of over 100 hours of course study, typically completed over the course of 12 to 20 months. It is designed to prepare a trainee to function as an independent Nationally Board-Certified Health and Wellness Coach (NBC-HWC), a Nurse Coach-Board Certified (NC-BC), or simply to enhance their skills as a physician, nurse practitioner, registered nurse, etc.

As of October 2020, we are training our tenth cohort of healthcare professionals from across the United States.

I've also been involved in training health coaching skills to first year medical students at Meharry Medical College.

<u>Teaching Activities</u> (Continued): Workshops & Seminars provided for Corporations, Government Agencies & Community Service organizations. This list does not include dozens of workshops and seminars that I have provided at Vanderbilt University for VUMC patients and Vanderbilt employees.

*Indicates seminars and workshops that were provided during multiple years.

A.A.R.P.

Alive Hospice

ALS Association of Nashville

American Cancer Society

American General

*American Heart Association

American Lung Association

Arthur Andersen

Aspect Communications

AT & T

Baker Donelson

Bass, Berry & Sims

Bedford County Medical Center

*Belmont University

Blue Cross / Blue Shield of Tennessee

Boy Scouts of America

Broadcast Music Inc (BMI)

Caterpillar

Central Parking

City Club

CMT / MTV Networks

Cummins Inc.

Deloitte & Touche

Deloitte Business Resource Group

Diabetes In Motion

Emma Inc.

E.M.I.

Gap

Gaylord Entertainment

*General Motors / Saturn

Genesco

Girl Scouts of America

Greek Orthodox Archdiocese of America

Health Care Property Investors Inc.

*Hertz Corporation

Holt Southeast Corporation

Ingram Entertainment

Ingram Industries

ITW Dynatech

J. B. Ashtin Group

Jennie Stuart Medical Center

Lawyer's Association for Women

Leadership Nashville

Logan Aluminum

Logan's Roadhouse

Louisiana Pacific (LP)

Manchester Tank

Marriot Corporation

Marsh and McClennan

Mended Hearts

*Metro Action Committee

Metro Nashville Airport Authority

*Metro Nashville Public Schools

Metro Nashville Police Academy

Metro Social Services

Mid-South Workers Compensation Association

Nashville Electric Service (NES)

National Distribution & Contracting, Inc.

Neal & Harwell, PLC

Parum Energy

PICA Group

Psychiatric Solutions Incorporated

Red Cap Industries

Rotary International

Second Presbyterian Church

Square D

Star Manufacturing International

Teledyne Electronics

Tennessee Association of Community Action

Tennessee Electric Cooperative

Tennessee Bun

Tennessee Hospitality Association

*Tennessee State University

Tennessee Women in Medicine

The Federal Reserve Bank

*The Internal Revenue Service (IRS)

The National Security Agency (NSA)

The Human Capital Group
The Tennessean
The YMCA
Thomas Nelson Publishing
Trevecca Nazarene University
United Methodist Communications
University School of Nashville
Waller, Lansden, Dortch & Davis, LLP
Whirlpool Corporation

Major Corporate Health Promotion Projects Completed for Vanderbilt:

Similar to funded research projects, some of these were multi-year projects.

- **Hertz Corporation:** I provided multiple seminars for members of Hertz management personnel from throughout the United States as part of their leadership development training.
- **Saturn Corporation:** I provided 10-hour Stress & Worry Management Workshops to over 1200 Saturn employees over a period of approximately two years.
- **The Visibility Company:** I developed curricula for their web-based "Shaping Up" program.
- **Aegis Health Group:** I developed the survey questions and provided text on the topics of stress and depression for their Health Risk Appraisal and consumer feedback report.
- Applied Health Analytics: I headed the development and testing of their Health Risk Appraisal (HRA), as well as their Consumer Feedback Report. I also developed the questionnaire items, feedback text, and scoring algorithms for multiple areas of their HRA (e.g., stress, depression, emotional health, alcohol consumption, medication adherence, overweight / obesity, medical screenings and exams).
- **EBM Solutions:** EBM Solutions was a VUMC-affiliated startup headed by the then Vice Chancellor for Health Affairs at Vanderbilt. I developed the evidence-based treatment guidelines and wrote the text for both Health Care Providers and Patients on the topics of Stress Management and Medication Adherence.

This effort involved selected experts among the faculty of Vanderbilt University, Oregon Health & Sciences University, Washington University School of Medicine, Mount Sinai / NYU Health, Emory and Duke.

Publications in Peer Reviewed Journals

- 1. <u>Armstrong, C.A.</u>, Wolever, R.Q., Manning, L., Elam, R., Moore, M., Frates, E., Duskey, H., Anderson, C., Masemer, S., & Lawson, K. (2013). Group Health Coaching: Strengths, Challenges and Next Steps. <u>Global Advances In Health and Medicine</u>, 2(3), 73 80.
- 2. Hayden-Wade, H., Coleman, K.J., Sallis, J.S., & <u>Armstrong, C.A.</u> (2003). Validation of the telephone and in-person interview versions of the 7-Day PAR. <u>Medicine and Science in Sports and Exercise</u>, 35(5), 801-809.
- 3. Patten, C.A., <u>Armstrong, C.A.,</u> Martin, J.E., Sallis, J.S., & Booth, J., (2001). Behavioral control of exercise in adults: Studies 7 and 8. <u>Psychology and Health</u>. 15(4), 571-581.
- 4. Marcoux, M.F., Sallis, J.F., McKenzie, T.L., Marshall, S., <u>Armstrong, C.A.</u>, & Goggin, K.J. (1999). Process evaluation of a physical activity self-management program for children: SPARK. <u>Psychology and Health</u>, 14, 659-677.
- 5. Harper, W., Groves, J., Gillian, J., & <u>Armstrong, C.A.</u> (1999). Rethinking the place of psychological support groups in cardiopulmonary rehabilitation. <u>Journal of Cardiopulmonary Rehabilitation</u>, 19(1), 18-21.
- 6. <u>Armstrong, C.A.,</u> Sallis, J.F., Alcaraz, J.E., Kolody, B., McKenzie, T.L., & Hovell, M.F. (1998). Children's television viewing, body fat, and cardiovascular fitness. American Journal of Health Promotion, 12(6), 363-368.
- Armstrong, C.A., Sallis, J.F., McKenzie, T.L., Kolody, B. & Alcaraz, J.E. (1995). Children's television viewing and physical fitness: A prospective analysis. <u>Annals of Behavioral Medicine</u>, <u>17</u>, 152.
- 8. McKenzie, T.L., Sallis, J.F., & <u>Armstrong, C.A.</u> (1994). Association between direct observation and accelerometer measures of children's exercise during physical education and recess. <u>Medicine and Science in Sports and Exercise</u>, <u>26</u>, 143.
- 9. <u>Armstrong, C.A.,</u> Patten, C.A., & Martin, J.E. (1994). Exercise stages of change and cardiovascular function. <u>Annals of Behavioral Medicine</u>, <u>16</u>, 174.
- 10. Patten, C.A., <u>Armstrong, C.A.</u>, Martin, J.E., Petty, F., Demos, S., Arenas, F., Shepard, J., Vergara, A., & Zwicker, S. (1994). Behavioral control of exercise: Study 8. <u>Annals of Behavioral Medicine</u>, <u>16</u>, 174.

- 11. <u>Armstrong, C.A.,</u> Sallis, J.F., Alcaraz, J.E., Kolody, B., McKenzie, T.L., & Hovell, M.F. (1993). Children's television viewing is related to fitness and obesity. Annals of Behavioral Medicine, 15, 162.
- 12. Martin, J.E., <u>Armstrong, C.A.</u>, Fons, D., Sallis, J.F., Patten, C.A., Sherman, J., Arenas, F., & Bornyasz, M. (1993). Behavioral control of exercise: Study 7. Annals of Behavioral Medicine, 15, 162.
- 13. Suter, P., Suter, S., Roessler, J.S., Parker, K.L., <u>Armstrong, C.A.</u>, & Powers, J.C. (1994). Spatial-frequency-tuned channels in early infancy: VEP Evidence. <u>Vision</u> Research, 34(6), 737-745.
- 14. <u>Armstrong, C.A.</u>, Sallis, J.F., Hovell, M.F., & Hofstetter, C.R. (1993). Stages of change, self-efficacy, and the adoption of vigorous exercise: A prospective analysis. <u>Journal of Sport and Exercise Psychology</u>, <u>15</u>, 390-402.
- 15. Martin, J.E., Patten, C.A., & <u>Armstrong, C.A.</u> (1993). Association between physical activity and blood pressure in normotensive adults. <u>Perceptual and Motor Skills</u>, <u>76</u>, 701-702.
- 16. Suter, S., <u>Armstrong, C. A.</u>, Suter, P. S., & Powers, J. C. (1991). Spatial-frequency-tuned attenuation and enhancement of the steady-state VEP by grating adaptation. <u>Vision Research</u>, <u>31</u>(8), 1167-1175.
- 17. Suter, P.S., Suter, S., <u>Armstrong, C.A.</u>, Powers, J.C., & Bass, B.L. (1990). Binocular VEP amplitude and lateral associated phoria. <u>Investigative Ophthalmology and Visual Science</u>, <u>31</u>, 92.
- Allen, M. J., Rienzi, B., & <u>Armstrong, C. A.</u> (1990) Alumni perceptions of the impact of race/ethnicity on their university experience. <u>Higher Education</u> <u>Abstracts</u>, <u>26</u>(4), 1143.
- 19. Suter, S, Suter, P.S., <u>Armstrong, C.A.,</u> & Bass B. (1990). Spatial frequency of steady state amplitude and phase in 12 week old infants. <u>Investigative</u> <u>Ophthalmology and Visual Science</u>, <u>31</u>(4), 250.
- 20. Suter S., Suter, P.S., <u>Armstrong, C.A.,</u> Powers, J. & Lutge, MS. (1989). Spatial frequency adaptation can enhance the steady state VEP to grating. <u>Investigative Ophthalmology and Visual Science</u>, <u>30</u>(3), 515.

Book Chapter

1. Wallston, K.A. & <u>Armstrong, C.A.</u> (2001) Theoretically based strategies for health behavior change. In M. P. O'Donnell (Ed), <u>Health Promotion in the Workplace</u>, 3rd edition.

Selected Conference Presentations:

- 1. Armstrong, C.A. <u>An Introduction to Positive Psychology: Managing Stress In a StressFULL Field</u> (2015). Presented at the Annual Statewide Conference of the Tennessee Association of Cardiovascular and Pulmonary Rehabilitation. Nashville, TN. (Invited Address).
- 2. Armstrong, C.A. <u>Practical Strategies for Increasing Happiness</u> (2013). Presented at the Scientific Sessions of the National Women Survivor's Convention. Nashville, TN. (Peer-Reviewed).
- 3. Armstrong, C.A. <u>Practical Models For Understanding Patient Decision Making About Their Medications</u>. Invited Address Presented at the 2nd Annual Congress on Advancing Adherence Programs: Personalized Approaches to Deliver Improved Patient Outcomes, March 8, 2007, Philadelphia, PA. (Invited Address).
- 4. Armstrong, C.A. Working to Improve Patient Adherence To Medications. Invited Address Presented at the 2nd Annual North American ADHD Physicians Meeting. Sept 29, 2007. Phoenix, Az. (Invited Address).
- 5. Armstrong, C.A. <u>Strategies for Promoting Medication Adherence</u>. Invited Address Presented at the 14th Annual National Symposium on Patient Compliance, May 16-17, 2006 Philadelphia, PA. (Invited Address).
- 6. Armstrong, C.A. <u>Patient Motivation and Decision Making About Their Medications</u> (2005). Invited Address Presented at Annual Patient Compliance, Adherence, and Education Conference, Nov. 29-30. 2005 Philadelphia, PA. (Invited Address).
- 7. Armstrong, C.A. <u>Medication Nonadherence: An Overview of the Problem and Introduction to Treatment Options</u> (2004). Presented at the Annual Meeting of the Tennessee Psychological Association. Nashville, TN. (Peer-Reviewed).
- 8. Armstrong, C.A. <u>Managing Stress in the Age of Anxiety (</u>2004). Presented at the Annual Meeting of the Tennessee Association for the Education of Young Children. Nashville, TN. (Invited Address).
- 9. Armstrong, C.A. <u>Cognitive Patterns That Influence Diet and Exercise</u> (2003). Presented at the Annual Meeting of the Tennessee Association of Certified Diabetes Educators, Nashville, TN. (Invited Address).
- 10. Brown, A.W., Wolff, K.L., Armstrong, C.A., Groves, J., Harrison, P., Shintani, A., Schlundt, D., Root, C., Nason, E., Misra, S., Ribble, R., Graber, A., Elasy, T. (2003). <u>A Randomized Controlled Trial to Increase Daily Activity in Outpatients With Type 2 Diabetes</u>. Presented at the American Diabetes Association's 63rd Scientific Sessions, New Orleans, LA. (Peer-Reviewed).

- 11. Brown, A.W., Wolff, K.L., Schlundt, D.G., Groves, J, Armstrong, C.A., Root, C., Nason, E., Ribble, R., Graber, A. (2002). <u>Self-Management Behaviors and Barriers Predict Metabolic Outcomes in Type 2 Diabetes</u>. Presented at the American Diabetes Association's 62nd Scientific Sessions, San Francisco, CA. (Peer-Reviewed).
- 12. Armstrong, C.A. (1999). <u>Stress management for the health care provider</u>. Presented at the Fall Conference of the Tennessee Association of Cardiovascular & Pulmonary Rehabilitation. Nashville, TN. (Invited Address).
- 13. DiGenio, A., Bauman, M., & Armstrong, C.A. (1999) <u>Pre-transplant physical activity as a predictor of peak VO₂ at exit from cardiac rehabilitation following cardiac transplantation</u>. Presented at the 14th Annual Meeting of the American Association of Cardiovascular and Pulmonary Rehabilitation, Phoenix, Arizona. (Peer-Reviewed).
- 14. Armstrong, C.A. & Frieden, G. (1999). <u>A Psychologist's Role in Health Promotion</u>. Presented at the annual meetings <u>of the Southeastern Psychological Association</u>, March 1999, Savannah, Georgia. (Peer-Reviewed).
- 15. Armstrong, C.A., Sallis, J.F., & Hayden, H. (1999). The Stages of Change in Exercise Adoption and Adherence: Evaluation of Measures with Self-Report and Objective Data. Presented at the Annual Meetings of the Society of Behavioral Medicine, San Diego. (Peer-Reviewed).
- 16. Patten, C.A., Armstrong, C.A., Booth, J., Martin, J.E., & Sallis, J.S. (1998). <u>Behavioral Control of Exercise: Final adherence results of Studies 7-8</u>. Presented at the annual meeting of the Society of Behavioral Medicine, New Orleans. (Peer-Reviewed).
- 17. Patten, C.A., Armstrong, C.A., Booth, J., Martin, J.E., & Sallis, J.S. (1998). <u>Behavioral Control of Exercise: Final adherence results of Study 9</u>. Presented at the annual meeting of the Society of Behavioral Medicine, New Orleans. (Peer-Reviewed).
- 18. Hayden, H., Sallis, J.F., Armstrong, C.A., Whalen, K., & Sarkin, J. (1998). <u>Evaluation of the phone version of the Seven Day Physical Activity Recall</u>. Presented at the annual meeting of the American College of Sports Medicine, Orlando. (Peer-Reviewed).
- 19. Patten, C.A., Armstrong, C.A., & Martin, J.E. (1993, March). <u>Association between physical activity and blood pressure in normotensive adults</u>. Poster presented at the annual meeting of the Society of Behavioral Medicine, (Rapid Communications Section), San Francisco. (Peer-Reviewed).

- 20. McKenzie, T. L., Sallis, J. F., Armstrong, C.A., Condon, A., & Goggin. (1992, November). <u>Teaching children to self-manage physical activity engagement:</u> <u>Project SPARK</u>. Presented the annual meeting of Association for the Advancement of Applied Sport Psychology, Colorado Springs. (Peer-Reviewed).
- 21. Armstrong, C.A., Sallis, J.F., Hovell, M.F., & Hofstetter, C.R. (1992, March). <u>Predicting adoption of vigorous exercise: A stages of change approach</u>. Poster presented at the annual meeting of the Society of Behavioral Medicine, New York. (Peer-Reviewed).
- 22. Nyberg, K. L., Armstrong, C.A., & Heindel, K. (1990, January). Was it worth it, and is it still? CSU Alumni Evaluation of their college major. Presented at the meetings of the California State University Alumni Council. San Francisco. (Invited Address).
- 23. Allen, M. J., Armstrong, C. A., & Gutierrez, D. M. (1990, August). <u>Alumni vs.</u> faculty opinion on undergraduate psychology programs. Poster presented at the meeting of the American Psychological Association, Boston. (Peer-Reviewed).
- 24. Allen, M. J., & Armstrong, C. A. (1990, April). Would you major in psychology again? Poster presented at the meeting of the Western Psychological Association, Los Angeles. (Peer-Reviewed).
- 25. Powers, J. C., Suter, S., Suter, P. S., & Armstrong, C. A. (1990, April). <u>The CNV and visual acuity</u>. Poster presented at the meeting of the Western Psychological Association, Los Angeles. (Peer-Reviewed).
- 26. McMillan, J. D. & Armstrong, C. A. (1989, November). <u>Undergraduate majors in behavioral sciences: Ratings from an alumni follow-up survey</u>. Paper presented at the meeting of the California Association for Institutional Research, San Diego. (Peer-Reviewed).
- 27. Armstrong, C. A. (1989, April). <u>Spatial frequency selective adaptation effects in the steady-state visual evoked potential</u>. Poster presented at the Eighteenth Annual Western Psychology Conference for Undergraduate Research, Santa Clara, CA. (Peer-Reviewed).
- 28. Nyberg, K. L., Armstrong, C. A., & Heindel, K. (1988, November). <u>Quantitative</u> analyses and graphic presentations of student outcomes assessment data. Invited address to the California State University Systemwide Conference on Student Outcomes Assessment, Lake Arrowhead, CA. (Invited Address).
- 29. Allen, M. J., Armstrong, C. A., Clarin, A., & Velasquez, J. (1988, April). <u>Severity and gender effects on ratings sexual harassment</u>. Poster presented at the annual meeting of the Western Psychological Association, San Francisco. (Peer-Reviewed).

30. Armstrong, C. A. (1988, April). <u>Adaptation to sinusoidal gratings in the steady-state visual evoked potentials of infants</u>. Poster presented at the Seventeenth Annual Western Psychology Conference for Undergraduate Research, San Francisco. (Peer-Reviewed).