# Gina Merchant, Ph.D.

## **CURRICULUM VITAE**

## gmerchant.ucsd.edu

Email: gmerchant@ucsd.edu

Foreign language: Spanish; fluency is conversational

Statistical computing: R

#### **CURRENT POSITION**

National Library of Medicine Postdoctoral Fellow University of California San Diego Department of Biomedical Informatics Department of Family Medicine & Public Health

#### **EDUCATION**

University of California, San Diego & San Diego State University **Ph.D.** Public Health, Health Behavior (2015)

California State University San Marcos

M.A. Experimental Psychology (2011)\*

\*Dean's Outstanding Graduate Award, College of the Arts & Sciences

University of California, San Diego **B.A.** Psychology (2006)

Tecnologico de Monterrey, Monterrey, MX Education Abroad, UCSD (Fall 2005)

University of Connecticut (2002 – 2003)

Cuesta Community College, San Luis Obispo, CA **A.A.** General Education (2002)

## MANUSCRIPTS IN PREPARATION/UNDER REVIEW

**Merchant, G.**, Roberts, M., Yang, J., Fowler, J., & Patrick, K. Comparing natural language processing techniques to evaluate social media posts: How weight-loss participants' posts change over the course of a two-year trial. *Submission in progress to Nature Human Behavior (June, 2017).* 

Godino, J., **Merchant, G.**, Crawford, M., Calfas, K. J., Rock, C. L., Griswold, W. G., Raab, F., Jain, S., & Patrick, K. Results of a One-year text message intervention for obese English and Spanish speaking adults: ConTxt. *Submission in progress to PLOS Medicine (June, 2017)*.

Camplain, R., Alvarez, C., Wilson, R., Sotres-Alvarez, D., Perreira, K. M., Gallo, L., Castaneda, S. F., **Merchant, G.**, Chambers, E. C., Penedo, F. J., Gellman, M. D., & Evenson, K. The association of acculturation with accelerometer-assessed and self-reported physical activity and sedentary behavior: The Hispanic Community Health Study/Study of Latinos. *Submission in progress to Preventive Medicine (June, 2017).* 

#### REFEREED PUBLICATIONS

- 17. **Merchant, G**, Weibel, N., Pina, L., Griswold, W. G., Fowler, J. H., Ayala, G. X., Gallo, L. C., Hollan, J., Patrick, K. Face-to-Face and Online Networks: College Students' Experiences in a Weight-Loss Trial (2017). *Journal of Health Communication*. http://dx.doi.org/10.1080/10810730.2016.1250847
- 16. Moller, A. C., **Merchant, G.**, Conroy, D., West, R., Hekler, E., Kuglar, K., Michie, S. Applying and advancing behavior change theories and techniques in the context of digital health interventions (**2016**). *Journal of Behavioral Medicine. DOI:* 10.1007/s10865-016-9818-7
- 15. Godino, J., Merchant, G., Norman, G. J., Donohue, M. C.,, Marshall, S. J., Fowler, J. H., Calfas, K. J., Rock, C. L., Griswold, W. G., Gupta, A. G., Raab, F., Fogg, B. J., Robinson, T. N., & Patrick, K. Results of a Two-year Randomized Controlled Social and Mobile Weight Loss Trial for Overweight and Obese Young Adults (Project SMART) (2016). Lancet Diabetes and Endocrinology. <a href="http://dx.doi.org/10.1016/S2213-8587(16)30105-X">http://dx.doi.org/10.1016/S2213-8587(16)30105-X</a>
- Xu, S. Y., Nelson, S., Kerr, J., Godbole, S., Patterson, R., Abramson, I., Merchant, G., & Natarajan, L. Statistical Approaches to Account for Missing Values in Accelerometer Data (2016). Statistical Methods in Medical Research. DOI: 10.1177/0962280216657119
- 13. Yardley, L., Spring, B. J., Riper, H., Morrison, L. G., Crane, D. H., Curtis, K., **Merchant, G**., Naughton, F., & Blandford, A. E. Understanding and Promoting Engagement with Digital Health Interventions (**2016**). *American Journal of Preventive Medicine Special Issue on Digital Health.* http://dx.doi.org/10.1016/j.amepre.2016.06.015
- 12. Kerr, J., Takemoto, M., Bolling, K., Atkin, A., Carlson, J., Rosenberg, D., Crist, K., Godbole, S., Lewars, B., Pena, C., **Merchant, G**. Two-arm randomized pilot intervention to decrease sitting time and increase sit-to-stand transitions in working and non-working older adults (**2016**). *PloS One*. doi: 10.1371/journal.pone.0145427
- 11. Vásquez, E., Strizich, G., Gallo, L., Marshall, S. J., **Merchant, G.**, Moncrieft, A. E., Murillo, R., Penedo, F. J., Salazar, C. R., Sotres-Alvarez, D., Shaw, B. A., Isasi, C. R. The role of stress in understanding differences in sedentary behavior in Hispanic/Latino: Results from the Hispanic Community Health Study/ Study of Latinos Socio-cultural Ancillary Study (**2016**). *Journal of Physical Activity and Health*. doi: http://dx.doi.org/10.1123/jpah.2014-0608
- Merchant, G., Buelna, C., Castaneda, S. F., Arredondo, E. M, Marshall, S. J., Strizich, G., Sotres-Alvarez, D., Chambers, E. C., McMurray, R. G., Evenson, K. R., Stoutenberg, M., Hankinson, A. L., Talavera, G. A. Accelerometer-measured sedentary time among Hispanic adults: Results from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) (2015). Preventive Medicine Reports. doi: 10.1016/j.pmedr.2015.09.019
- Qi, Q., Strizich, G., Merchant, G., Sotres-Alvarez, D., Buelna, C., Castaneda, S., Gallo, L., Cai, J., Gellman, M., Isai, C., Moncrieft, A., Sanchez-Johnson, L., Schneiderman, N., Kaplan, R. Objectively-measured sedentary time and cardiometabolic biomarkers in U.S. Hispanic/Latino adults: The Hispanic Community Health Study/Study of Latinos (HCHS/SOL) (2015). *Circulation*. doi: 10.1161/CIRCULATIONAHA.115.016938
- 8. Gupta, A., Calfas, K., Marshall, S. J., Robinson, T., Rock, C., Epstein, M., Servetas, C., Donohue, M., Raab, F., Fowler, J., Griswold, W., Norman, G., Fogg, B. J., **Merchant, G.**, Patrick, K. (**2015**). Clinical trial management of participant recruitment, enrollment, engagement, and retention in the SMART study using a Marketing and Information Technology (MARKIT) model. *Contemporary Clinical Trials*. doi: 10.1016/j.cct.2015.04.002

- Hill, L., Rybar, J., Styer, T., Fram, E., Merchant, G.,\* Eastman, A. (2014). Prevalence and attitudes about distracted driving in college students. *Traffic Injury Prevention*. doi: 10.1080/15389588.2014.949340
   \*Statistics consultant
- Merchant, G., Weibel, N., Patrick, K., Fowler, J., Norman, G., Gupta, A., Servetas, C., Griswold, W., Calfas, K., Raste, K., Pina, L., Donohue, M., Griswold, W., Marshall, S. (2014). Click 'Like' to change your behavior: A mixed methods study of college students' exposure to and engagement with Facebook content designed for weight-loss. *Journal of Medical Internet Research 16 (6), e158.* doi: 10.2196/jmir.3267
- Patrick, K., Marshall, S., Davila, E., Kolodziejczyk, J., Fowler, J., Calfas, K., Huang, J., Rock, C., Griswold, B., Gupta, A., Merchant, G., Norman, G., Rabb, F., Donohue, M., Fogg, BJ, Robinson, T. N. (2013). Design and implementation of a randomized controlled social and mobile weight loss trial for young adults (project SMART). Contemporary Clinical Trials 37 (1), 10-18. doi: 10.1016/j.cct.2013.11.001
- 4. Marshall, S., **Merchant, G**. (**2013**). Advancing the science of sedentary behavior measurement. *American Journal of Preventive Medicine, 44 (2),* 190-191. doi: 10.1016/j.amepre.2012.11.001
- 3. **Merchant, G.,** Pulvers, K., Brooks, R. D., Edwards, J. (**2013**). Coping with the urge to smoke: A real-time analysis. *Research in Nursing and Health, 36 (1), 3-15.* doi: 10.1002/nur.21520
- 2. Kolodziejczyk, J., **Merchant, G.,** Norman, G. (**2012**). A Systematic Review: Reliability and Validity of Child/Adolescent Food Frequency Questionnaires that Assess Foods and/or Food Groups. *Journal of Pediatric Gastroenterology and Nutrition, 55 (1), 4-13.* doi: 10.1097/MPG.0b013e318251550e
- 1. Hood, A., Pulvers, K., Carrillo, J., **Merchant, G.,** Thomas, M. (**2012**). Positive traits linked to less pain through lower pain catastrophizing. *Personality and Individual Differences, 52 (3),* 401-405. doi:10.1016/j.paid.2011.10.040

## **INVITED TALKS:**

- 7. Ethical use of mobile imaging, pervasive sensing, social media, and location tracking (MISST) technologies in research. **Panel discussion.** SBM Annual Conference; Spring 2017
- 6. Time Management Tips & Tricks. Panel discussion. SBM Annual Conference; Spring 2017.
- 5. Participant friendships: How connectivity within an RCT relates to weight loss **Seminar**. *UCSD Department of Family Medicine & Public Health, CVD Epi & Prevention; Fall 2017*
- 4. Social media and health behavior: Stimulating and analyzing the online conversation **Symposium.** SBM Annual Conference; Spring 2016
- 3. What are social network methods and analyses? How to use them in your research **Half-day workshop.** SBM Annual Conference; Spring 2015
- 2. On grant writing & writing well

Half-day workshop. Audience: 2<sup>nd</sup> year MPH students (SDSU; Spring 2014)

Using accelerometers to measure physical activity & sedentary behavior
 Half-day workshop. Audience: Junior faculty/post-doctoral investigators taking part in the Programs
 to Increase Diversity Among Individuals Engaged (PRIDE) workshop to enhance research skills in
 cardiovascular health disparities (IBACH/SDSU; Summer 2013)

#### REFEREED PRESENTATIONS

22. Crawford M, Godino JG, **Merchant G**, Rock CL, Marshall S, Arredondo E, Griswold WG, Norman GJ, Donohue MC, Kolodzeijczyk J, Raab F, Dillon L, Patrick K (2016, March). Impact of a one-year text message intervention on physical activity and diet in overweight/obese, English/Spanish-speaking

- adults: ConTxt. Presented at: Society of Behavioral Medicine's 37<sup>th</sup> Annual Meeting and Scientific Sessions; Washington, DC.
- 21. Godino JG, **Merchant G**, Norman GJ, Donohue MC, Marshall SJ, Fowler JH, Calfas KJ, Huang JS, Rock CL, Griswold WG, Gupta A, Raab F, Fogg BJ, Robinson TN, Patrick K (2015, June). Results of a two-year social and mobile weight-loss intervention for overweight and obese young adults: Project SMART. Presented at: The International Society for Behavioral Nutrition and Physical Activity's Annual Meeting; Edinburgh, Scotland.
- 20. **Merchant, G.,** Carlson, J., Godbole, S., Black, M., Kerr, J. (2014, May). Take a stand: Targeting psychosocial mediators of change to reduce older adults' sedentary behavior. Poster presented at the International Society for Behavioral Nutrition and Physical Activity Conference, San Diego, CA.
- 19. Godbole, S., Wang, L., **Merchant, G.,** Wing, D., Marshall, S., Kerr, J. (2014, May). Predicting Energy Expenditure from a wrist-worn ActiGraph GT3X+ accelerometer. Poster presented at the International Society for Behavioral Nutrition and Physical Activity Conference, San Diego, CA.
- 18. Johnson, E., Wang, L., **Merchant, G**.,\* Marshall, S., Kerr, J. (2014, May). Objective measurement of screen time in overweight women with different working status. Oral presentation at the International Society for Behavioral Nutrition and Physical Activity Conference, San Diego, CA. \*Mentored first author
- 17. **Merchant, G**., Pina, L., Black, M., Bales, E., Weibel, N., Griswold, B., Fowler, J., Patrick, K. (2014, April). Online and face-to-face: How do ad-hoc and existing networks support weight-related behavior change in young adults? Poster presented at the Society of Behavioral Medicine Conference, Philadelphia, PA.
- 16. Marinac, C. **Merchant, G.**, Godbole, S., Chen, J., Kerr, J., Clark, B., Marshall, S. (**2013**). The feasibility of using SenseCam to measure the type and context of sedentary behavior. Paper presented at the International SenseCam & Pervasive Imaging Conference, San Diego, CA and published in the Proceedings of the 4th International SenseCam & Pervasive Imaging Conference through ACM Digital Library.
- 15. Gupta, A., Calfas, K., Marshall, S., Fowler, J., Norman, G., Robinson, T., Huang, J., Epstein-Corbin, Gross, C., Merchant, G., Raab, F., Griswold, W., Rock, C., Fogg, BJ, Weibel, N., Donohue, M., Kolodziejcyk, J., Patrick, K. (2014, April). 12-Month retention and engagement in the social mobile approaches to reduce weighT (SMART) study: A 2-year RCT of a technology-based intervention for weight-loss. Poster presented at the Society of Behavioral Medicine Conference, Philadelphia, PA.
- 14. Marinac, C. **Merchant, G.,** Godbole, S., Chen, J., Kerr, J., Clark, B., Marshall, S. (2013, November). The feasibility of using SenseCam to measure the type and context of sedentary behavior. Oral paper presentation at the International SenseCam & Pervasive Imaging Conference, San Diego, CA.
- 13. Davila EP, Patrick K, Marshall S, Fowler J, Kansagara AG, Servetas C, **Merchant G.** (2013, May). A social and mobile weight control program for young adults, project SMART. Oral presentation presented at the International Society for Research on Internet Interventions, Chicago, IL.
- 12. **Merchant, G.**, Pulvers, K. (2013, March). Ready to exercise? Exercise-specific cognitions and emotions of young women. Poster presented at the Society of Behavioral Medicine Conference, San Francisco, CA.
- 11. Gupta, A., **Merchant, G**., Marshall, S., Fowler, J., Calfas, K., Patrick, K. (2013, March). Applying theory-driven behavior change principles to Facebook campaigns for weight loss. Poster presented at the Society of Behavioral Medicine Conference, San Francisco, CA.

- 10. **Merchant, G.**, Davila, E., Marshall, S., Gupta, A., Patrick, K. (2013, March). Patterns of sedentary behavior among overweight/obese college students recruited to a weight-loss intervention. Poster presented at the Society of Behavioral Medicine Conference, San Francisco, CA.
- 9. **Merchant, G.,** Parada, H., Marshall, S. J. (2012, May). Convergent validity of self-reported sedentary behavior and accelerometry: Comparing multiple cut points. Poster presented at the American College of Sports Medicine Conference, San Francisco, CA.
- 8. **Merchant, G.,** Pulvers, K., Hood, A., Carillo, J. (2012, April). Measurement issues within the stages of change for exercise. Poster presented at the Society of Behavioral Medicine Conference, New Orleans, LA.
- 7. Kolodziejczyk, J., **Merchant, G.**, Norman, G. (2012, April). A systematic review: reliability and validity of child/adolescent food frequency questionnaires that assess foods and/or food groups. Poster presented at the Society of Behavioral Medicine Conference, New Orleans, LA.
- 6. Pulvers, K., Limas, L., **Merchant, G.**, Hood, A. (2012, April). Hope is linked with positive affect during nicotine deprivation. Poster presented at the Society of Behavioral Medicine Conference, New Orleans, LA.
- 5. **Merchant, G.,** Brooks, R., Edwards, J., Pulvers, K. (2011, April). Effective strategies for coping with the urge to smoke. Poster presented at the Western Psychological Association Conference, Los Angeles, CA.
- 4. Pulvers, K., Hood, A., Carillo, J., **Merchant, G.** (2011, April). Positive traits linked less pain through lower pain catastrophizing. Poster presented at the Western Psychological Association Conference, Los Angeles, CA.
- 3. Ramirez, E. I., Norman, G. J., **Merchant, G**., Sallis, J. F., Calfas, J. K., Patrick, K. (2011, April). Multibehavioral determinants of weight loss in men and women. Poster presented at the Society of Behavioral Medicine Conference, Washington, DC.
- 2. Pulvers, K., **Merchant, G.,** Pandzic, I., Potter, R., Carlson, J., Thode, L. (2010, June). Cognitive and affective correlates of distress tolerance and smoking relapse. Poster presented at the American Psychological Association Conference, San Diego, CA.
- 1. Shepard, A., **Merchant, G**.,\* Pulvers, K. (2010, June). Does affect mediate the relationship between hope and nicotine dependence? Poster presented at the American Psychological Association Conference, San Diego, CA. \**Mentored first author*

### **TEACHING**

#### Instructor:

- Introduction to Programming in R: Data management & manipulation (Professor): UCSD;
   Undergrad; planned Winter 2018
- Health Disparities, Diversity, and Culture (Professor): CSUSM; MPH; planned Fall 2017
- Foundations of Health Systems Organization and Delivery (Professor): CSUSM; MPH; 2017
- Introduction to Psychology (Section instructor): CSUSM; Undergrad; 2011

## **Teaching Assistant:**

- Epidemiology & Biostatistics: UCSD; Undergraduate; Spring, 2014
- Primary Care & Public Health: UCSD; Undergraduate; Winter, 2014
- Advanced Statistics: CSUSM; Undergraduate; Fall, 2011
- Psychological Testing Methods: CSUSM; Undergraduate; Spring, 2010

### Teacher training:

- Center for Teaching Development's College Classroom Course: UCSD; 2013
- Teaching of Psychology course: CSUSM; 2010

#### **Guest lectures:**

• Identifying online conversations about health and how information travels in social networks: Antivaccine sentiment as a health threat

Course: Current Trends in Biomedical Informatics (UCSD; Graduate seminar; Spring, 2017)

• Sample size & power

Course: Epidemiology, Biostatistics, Medical Informatics (UCSD; MD; Fall, 2016)

- Using social media to promote and understand health behavior change Course: Digital Health (SDSU; Masters; Fall, 2015)
- Measurement considerations in social-media based interventions
   Course: Health Behavior Measurement (SDSU; PhD; Fall, 2014)
- Critical concepts in behavioral measurement

Course: Behavioral Measurement (SDSU; PhD; Fall, 2014)

• Overcoming barriers to exercise

Course: Cardiopulmonary Therapeutics (SDSU; PhD; Fall, 2014)

- Remotely delivering interventions using social media
  - Course: Health Communication (SDSU; Masters; Fall, 2014)
- Understanding adherence in studies using technology to change health behavior Course: Health Behavior Practicum Part I (UCSD; PhD; Fall, 2013)
- Using theory-driven behavior change techniques in health behavior interventions Course: Theoretical Foundations of Health Promotion (SDSU; Masters; Fall, 2013)
- Using accelerometers to objectively measure sedentary behavior
   Course: Physical Activity & Public Health Practice (SDSU; Masters; Spring, 2013)
- The role of promotoras in promoting weight-related behavior change Course: Health Promotion (SDSU; Masters; Spring, 2012)

### **GRANTS**

## T15 Ono-Machado (PI) 09/01/16 - 08/31/18

Biomedical Informatics Fellowship Funded by NLM & managed by UCSD (T15LM011271)

## T32 Criqui (PI) 09/01/13 - 08/31/14

Integrated Cardiovascular Epidemiology Fellowship Funded by NHLBI & managed by UCSD

## T32 Hovell (PI) 09/01/11 - 08/31/13

Transdisciplinary Training for Predoctoral Behavioral Scientists Fellowship Funded by NIGM & managed by SDSU

## **AWARDS / HONORS**

- R Studio Diversity Scholarship -- Conference Grant (January, 2017)
- Chancellor's Doctoral Incentive Program -- Conference Grant (2013)
- California State University Chancellor's Doctoral Incentive Program (2011 2014)
- Dean's Outstanding Graduate Award, College of the Arts & Sciences CSUSM (2011)
- Student Research Competition Finalist CSUSM (2011)
- California State University Pre-Doctoral Scholarship Runner-up CSUSM (2010)
- Big East & New England Scholar-Athlete *University of Connecticut (2003)*

Gelfenbien Family Academic Achievement Award University of Connecticut (2003)

### **PROFESSIONAL SERVICE**

## Leadership:

- **R Forwards Taskforce:** The taskforce seeks to improve gender equity in users and contributors as well as increase the presence of other underrepresented groups. Social Media & Conference team subcommittee member (2017 )
- **Human Nature Group**: A methods-focused multidisciplinary group of social and health science students and faculty. Student lead (2014 2015)
- Theories & Techniques of Behavior Change Interventions Special Interest Group with the Society of Behavioral Medicine. Junior Co-Chair (2013-2015)
- Southern CA Forum for Diversity in Higher Education. Panelist (2012 2014)
- **Student Representative** for the Health Behavior Track of the Joint Doctoral Program in Public Health (2012-2013)

## Ad-hoc reviewer:

- American Journal of Preventive Medicine
- American Journal of Public Health
- Annals of Behavioral Medicine
- Journal of Medical Internet Research
- PLOS One
- Society of Behavioral Medicine Conference abstracts
- useR! Conference Scholarship Applications

## Professional organization membership:

- Society of Behavioral Medicine
- American Medical Informatics Association

## **COMMUNITY SERVICE**

- Volunteer Graduate Assistant Coach: California State University Women's Soccer (2009-2011)
- Volunteer for the Vicalli Community Outreach Center: Monterrey, MX (Fall 2005)
- Volunteer for the California Public Interest Research Group (CALPIRG): University of California San Diego (2004) & University of Connecticut (2002)

## **PERSONAL ACTIVITIES**

- Founder of a San Diego adult running team, Prado Racing Team: www.runprt.com
- University of California San Diego Track and Field 2005: 2005 CCAA Conference Champions
- University of Connecticut Women's Soccer 2002 2003: 2003 Division I National Semi-finalists & 2002 Big East Conference Champions
- Cuesta College Women's Soccer 2000 2002: 2001-2002 Team Captain