

Stanford



Michaela Kiernan

Sr Research Scholar, Medicine - Med/Stanford Prevention Research Center

Bio

ACADEMIC APPOINTMENTS

- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Invited Member, Provost's Advisory Committee for Postdoctoral Scholars, (2009-2015)

HONORS AND AWARDS

- Divisional Teaching Award, Department of Medicine, Stanford University School of Medicine (2002, 2007, 2018)
- Recognition Award for Extraordinary Service for the Advancement of Postdoctoral Fellows, Stanford University Postdoctoral Association (2012)
- Excellence in Postdoctoral Mentoring Award, Stanford University Postdoctoral Association (2009)
- Outstanding Leadership Award, Office of Community Health, Stanford University School of Medicine (2007)
- Fellow, North American Association for the Study of Obesity (2001-present)
- First Independent Research Support and Transition Award (FIRST), National Heart, Lung, and Blood Institute, National Institutes of Health (1998-2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Consulting Editor, Health Psychology (2017 - present)

PROFESSIONAL EDUCATION

- Postdoctoral fellowship, Stanford Prevention Research Center , CVD Epidemiology & Prevention (1997)
- PhD, Yale University , Health/Social Psychology (1993)
- BA, Washington University in St. Louis , Psychology (1987)

LINKS

- R01 Countdown: Tools for Writing Concise and Compelling Grants [Handouts]: <https://purl.stanford.edu/yy394gb6954>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Kiernan's research program focuses on two areas: (1) designing behavioral interventions to promote long-term weight-loss maintenance and lifestyle behavior change for high-risk subgroups; and (2) testing innovative methodological strategies to improve the design, delivery, and analysis of randomized trials.

Her intervention research challenges traditional approaches for the maintenance of health behaviors. Her NIH-funded weight-management intervention trials have clearly distinguished between skills for weight loss versus skills for weight-loss maintenance; identified a novel set of 'stability skills' for long-term weight-loss maintenance that explicitly optimize satisfaction of engaging in lifestyle behaviors thereby promoting subsequent adherence once intervention staff contact is removed; and reversed the typical sequence of acquiring maintenance skills to provide an early mastery experience of the stability skills prior to losing weight.

Dr. Kiernan's methodological research includes integrating motivational interviewing techniques into interactive orientation sessions held prior to randomization to enhance participant engagement within randomized trials as well as experimentally testing and optimizing low-cost, broad-reach strategies to improve recruitment and retention of individuals from diverse racial/ethnic backgrounds and high-risk subgroups.

Dr. Kiernan directs the R01 Countdown Program for the Stanford University School of Medicine Office of Faculty Development and Diversity. This intensive grant writing program for junior faculty has generated over \$125M in NIH funding across 14 different NIH Institutes to date. R01 Countdown handouts are available online: <https://purl.stanford.edu/yy394gb6954>.

Dr. Kiernan also teaches academic courses, skills workshops, and invited lectures on research methods, grant writing, and scientific writing at the Stanford University School of Medicine as well as numerous academic institutions and conferences across the country, including programs to increase the racial/ethnic diversity of faculty investigators in science.

CLINICAL TRIALS

- Behavioral Strategies for Weight Management, Not Recruiting
- Personal Genomics for Preventive Cardiology, Not Recruiting
- Promoting Healthy Weight With 'Stability Skills First', Not Recruiting
- Promoting Long-term Behavior Change to Reduce CVD Risk, Not Recruiting
- Stanford Healthy Heart Study, Not Recruiting

Teaching

COURSES

2024-25

- Methods in Community Assessment, Evaluation, and Research: CHPR 247, MED 247 (Spr)

2023-24

- Methods in Community Assessment, Evaluation, and Research: CHPR 247, MED 247 (Spr)

2022-23

- Methods in Community Assessment, Evaluation, and Research: CHPR 247, MED 247 (Spr)

2021-22

- Methods in Community Assessment, Evaluation, and Research: CHPR 247, MED 147, MED 247 (Spr)

Publications

PUBLICATIONS

- **Intrinsic motivation for physical activity, healthy eating, and self-weighing in association with corresponding behaviors in early pregnancy.** *Preventive medicine reports*
Brown, S. D., Kiernan, M., Ehrlich, S. F., Zhu, Y., Hedderson, M. M., Daredia, S., Feng, J., Millman, A., Quesenberry, C. P., Ferrara, A.
2023; 36: 102456

- **Casting New Light on Statistical Power: An Illuminating Analogy and Strategies to Avoid Underpowered Trials.** *American journal of epidemiology*
Kiernan, M., Baiocchi, M. T.
2022
- **Methods-Motivational Interviewing Approach for Enhanced Retention and Attendance.** *American journal of preventive medicine*
Jake-Schoffman, D. E., Brown, S. D., Baiocchi, M., Bibeau, J. L., Daubenmier, J., Ferrara, A., Galarce, M. N., Hartogensis, W., Hecht, F. M., Hedderson, M. M., Moran, P. J., Pagoto, S. L., Tsai, et al
2021; 61 (4): 606-617
- **Effects of a methodological infographic on research participants' knowledge, transparency, and trust.** *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*
Kiernan, M., Opezzo, M. A., Resnicow, K., Alexander, G. L.
2018; 37 (8): 782-86
- **The Stanford Leisure-Time Activity Categorical Item (L-Cat): a single categorical item sensitive to physical activity changes in overweight/obese women** *INTERNATIONAL JOURNAL OF OBESITY*
Kiernan, M., Schoffman, D. E., Lee, K., Brown, S. D., Fair, J. M., Perri, M. G., Haskell, W. L.
2013; 37 (12): 1597-1602
- **Promoting Healthy Weight With "Stability Skills First": A Randomized Trial** *JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY*
Kiernan, M., Brown, S. D., Schoffman, D. E., Lee, K., King, A. C., Taylor, C. B., Schleicher, N. C., Perri, M. G.
2013; 81 (2): 336-346
- **Momentary Influences on Self-Regulation in Two Populations With Health Risk Behaviors: Adults Who Smoke and Adults Who Are Overweight and Have Binge-Eating Disorder.** *Frontiers in digital health*
Scherer, E. A., Metcalf, S. A., Whicker, C. L., Bartels, S. M., Grabiniski, M., Kim, S. J., Sweeney, M. A., Lemley, S. M., Lavoie, H., Xie, H., Bissett, P. G., Dallery, J., Kiernan, et al
2022; 4: 798895
- **Introducing the MAVEN Leadership Training Initiative to diversify the scientific workforce.** *eLife*
Wang, Y. C., Brondolo, E., Monane, R., Kiernan, M., Davidson, K. W., MAVEN Leadership Team, Alfano, C. M., Diamond, B., Duer-Hefele, J., Hill-Briggs, F., Kim, J., Peacock, J., Spector, N. D., et al
2021; 10
- **R01 COUNTDOWN: TOOLS FOR WRITING CONCISE AND COMPELLING GRANTS**
Kiernan, M., Farias, R., Brown, S. D.
OXFORD UNIV PRESS INC.2021: S527
- **Downstream funding success of early career researchers for resubmitted versus new applications: A matched cohort.** *PLoS one*
Doyle, J. M., Baiocchi, M. T., Kiernan, M.
2021; 16 (11): e0257559
- **Interactive group-based orientation sessions: A method to improve adherence and retention in pragmatic clinical trials.** *Contemporary clinical trials communications*
Mayhew, M., Leo, M. C., Vollmer, W. M., DeBar, L. L., Kiernan, M.
2020; 17: 100527
- **Challenges and Opportunities for the Prevention and Treatment of Cardiovascular Disease Among Young Adults: Report From a National Heart, Lung, and Blood Institute Working Group.** *Journal of the American Heart Association*
Gooding, H. C., Gidding, S. S., Moran, A. E., Redmond, N. n., Allen, N. B., Bacha, F. n., Burns, T. L., Catov, J. M., Grandner, M. A., Harris, K. M., Johnson, H. M., Kiernan, M. n., Lewis, et al
2020: e016115
- **Applying novel technologies and methods to inform the ontology of self-regulation.** *Behaviour research and therapy*
Eisenberg, I. W., Bissett, P. G., Canning, J. R., Dallery, J., Enkavi, A. Z., Whitfield-Gabrieli, S., Gonzalez, O., Green, A. I., Greene, M. A., Kiernan, M., Kim, S. J., Li, J., Lowe, et al
2018; 101: 46-57
- **The Relationship Between the Stanford Leisure-Time Activity Categorical Item and the Godin Leisure-Time Exercise Questionnaire Among Rural Intervention Participants of Varying Health Literacy Status.** *Journal of physical activity & health*
Kružílková, N. n., Estabrooks, P. A., You, W. n., Hedrick, V. n., Porter, K. n., Kiernan, M. n., Zoellner, J. n.

2018; 15 (4): 269-78

- **The ASIBS Short Course: A unique strategy for increasing statistical competency of junior investigators in academic medicine.** *Journal of clinical and translational science*
Benn, E. K., Tu, C., Palermo, A. S., Borrell, L. N., Kiernan, M., Sandre, M., Bagiella, E.
2017; 1 (4): 235-239
- **Impact of a Genetic Risk Score for Coronary Artery Disease on Reducing Cardiovascular Risk: A Pilot Randomized Controlled Study.** *Frontiers in cardiovascular medicine*
Knowles, J. W., Zarafshar, S. n., Pavlovic, A. n., Goldstein, B. A., Tsai, S. n., Li, J. n., McConnell, M. V., Absher, D. n., Ashley, E. A., Kiernan, M. n., Ioannidis, J. P., Assimes, T. L.
2017; 4: 53
- **Applying novel technologies and methods to inform the ontology of self-regulation** *Behaviour Research and Therapy*
Eisenberg, I. W., Bissett, P. G., Enkavi, A. Z., Poldrack, R. A.
2017; 46-57
- **Putting the brakes on the "drive to eat": Pilot effects of naltrexone and reward-based eating on food cravings among obese women** *EATING BEHAVIORS*
Mason, A. E., Laraia, B., Daubenmier, J., Hecht, F. M., Lustig, R. H., Puterman, E., Adler, N., Dallman, M., Kiernan, M., Gearhardt, A. N., Epel, E. S.
2015; 19: 53-56
- **Outreach to diversify clinical trial participation: A randomized recruitment study** *CLINICAL TRIALS*
Brown, S. D., Partee, P. N., Feng, J., Quesenberry, C. P., Hedderson, M. M., Ehrlich, S. F., Kiernan, M., Ferrara, A.
2015; 12 (3): 205-211
- **Minority recruitment into clinical trials: Experimental findings and practical implications** *CONTEMPORARY CLINICAL TRIALS*
Brown, S. D., Lee, K., Schoffman, D. E., King, A. C., Crawley, L. M., Kiernan, M.
2012; 33 (4): 620-623
- **Treatment matching for obesity: identifying mediators of psychosocial and behavioral intervention components.** *International journal of obesity supplements*
Kiernan, M.
2012; 2: S23-S25
- **Randomized Trial of Personal Genomics for Preventive Cardiology Design and Challenges** *CIRCULATION-CARDIOVASCULAR GENETICS*
Knowles, J. W., Assimes, T. L., Kiernan, M., Pavlovic, A., Goldstein, B. A., Yank, V., McConnell, M. V., Absher, D., Bustamante, C., Ashley, E. A., Ioannidis, J. P.
2012; 5 (3): 368-376
- **Social Support for Healthy Behaviors: Scale Psychometrics and Prediction of Weight Loss Among Women in a Behavioral Program** *OBESITY*
Kiernan, M., Moore, S. D., Schoffman, D. E., Lee, K., King, A. C., Taylor, C. B., Kiernan, N. E., Perri, M. G.
2012; 20 (4): 756-764
- **Practices Associated with Weight Loss Versus Weight-Loss Maintenance Results of a National Survey** *AMERICAN JOURNAL OF PREVENTIVE MEDICINE*
Sciamanna, C. N., Kiernan, M., Rolls, B. J., Boan, J., Stuckey, H., Kephart, D., Miller, C. K., Jensen, G., Hartmann, T. J., Loken, E., Hwang, K. O., Williams, R. J., Clark, et al
2011; 41 (2): 159-166
- **Outcome expectations and realizations as predictors of weight regain among dieters** *EATING BEHAVIORS*
Moore, S. D., King, A. C., Kiernan, M., Gardner, C. D.
2011; 12 (1): 60-63
- **The Jade Ribbon Campaign: A Model Program for Community Outreach and Education to Prevent Liver Cancer in Asian Americans** *JOURNAL OF IMMIGRANT AND MINORITY HEALTH*
Chao, S. D., Chang, E. T., Le, P. V., Prapong, W., Kiernan, M., So, S. K.
2009; 11 (4): 281-290
- **How and why criteria defining moderators and mediators differ between the Baron & Kenny and MacArthur approaches** *HEALTH PSYCHOLOGY*
Kraemer, H. C., Kiernan, M., Essex, M., Kupfer, D. J.
2008; 27 (2): S101-S108

- **Concerns about infertility risks among pediatric oncology patients and their parents** *PEDIATRIC BLOOD & CANCER*
Oosterhuis, B. E., Goodwin, T., Kiernan, M., Hudson, M. M., Dahl, G. V.
2008; 50 (1): 85-89
- **Use of a community mobile health van to increase early access to prenatal care** *MATERNAL AND CHILD HEALTH JOURNAL*
Edgerley, L. P., El-Sayed, Y. Y., Druzin, M. L., Kiernan, M., Daniels, K. I.
2007; 11 (3): 235-239
- **Image-guided robotic radiosurgery for spinal metastases** *RADIOTHERAPY AND ONCOLOGY*
Gibbs, I. C., Kamnerdsupaphon, P., Ryu, M., Dodd, R., Kiernan, M., Change, S. D., Adler, J. R.
2007; 82 (2): 185-190
- **Attitudes and practices of pediatric oncology providers regarding fertility issues** *PEDIATRIC BLOOD & CANCER*
Goodwin, T., Oosterhuis, B. E., Kiernan, M., Hudson, M. A., Dahl, G. V.
2007; 48 (1): 80-85
- **Characteristics of pediatric patients at risk of poor emergency department aftercare** *ACADEMIC EMERGENCY MEDICINE*
Wang, N. E., Kiernan, M., Golzari, M., Gisondi, M. A.
2006; 13 (8): 840-847
- **Innovative techniques to address retention in a behavioral weight-loss trial** *24th Annual Meeting of the Society-of-Behavioral-Medicine*
Goldberg, J. H., Kiernan, M.
OXFORD UNIV PRESS.2005: 439-47
- **Sentinel lymph node biopsy for cutaneous melanoma - The Stanford experience, 1997-2004** *ARCHIVES OF DERMATOLOGY*
Berk, D. R., Johnson, D. L., Uzieblo, A., Kiernan, M., Swetter, S. M.
2005; 141 (8): 1016-1022
- **Is a Web survey as effective as a mail survey? A field experiment among computer users** *AMERICAN JOURNAL OF EVALUATION*
Kiernan, N. E., Kiernan, M., Oyler, M. A., Gilles, C.
2005; 26 (2): 245-252
- **Physical activity as a nonpharmacological treatment for depression: A review** *Complementary Health Practice Review*
Phillips WT, Kiernan M, King AC
2003; 8: 139-152
- **Men gain additional psychological benefits by adding exercise to a weight-loss program** *OBESITY RESEARCH*
Kiernan, M., King, A. C., Stefanick, M. L., Killen, J. D.
2001; 9 (12): 770-777
- **Is parental control over children's eating associated with childhood obesity? Results from a population-based sample of third graders** *OBESITY RESEARCH*
Robinson, T. N., Kiernan, M., Matheson, D. M., Haydel, K. F.
2001; 9 (5): 306-312
- **Do logistic regression and signal detection identify different subgroups at risk? Implications for the design of tailored interventions** *PSYCHOLOGICAL METHODS*
Kiernan, M., Kraemer, H. C., Winkleby, M. A., King, A. C., Taylor, C. B.
2001; 6 (1): 35-48
- **Methodologic issues in measuring physical activity and physical fitness when evaluating the role of dietary supplements for physically active people** *Workshop on Role of Dietary Supplements for Physically Active People*
Haskell, W. L., Kiernan, M.
AMER SOC CLINICAL NUTRITION.2000: 541S-550S
- **Identifying patients for weight-loss treatment - An empirical evaluation of the NHLBI obesity education initiative expert panel treatment recommendations** *ARCHIVES OF INTERNAL MEDICINE*
Kiernan, M., Winkleby, M. A.
2000; 160 (14): 2169-2176

- **Using direct mail to recruit hispanic adults into a dietary intervention: An experimental study** *ANNALS OF BEHAVIORAL MEDICINE*
Kiernan, M., Phillips, K., Fair, J. M., King, A. C.
2000; 22 (1): 89-93
- **The effects of marital transitions on changes in physical activity: Results from a 10-year community study** *ANNALS OF BEHAVIORAL MEDICINE*
King, A. C., Kiernan, M., Ahn, D. K., Wilcox, S.
1998; 20 (2): 64-69
- **Characteristics of successful and unsuccessful dieters: An application of signal detection methodology** *ANNALS OF BEHAVIORAL MEDICINE*
Kiernan, M., King, A. C., Kraemer, H. C., Stefanick, M. L., Killen, J. D.
1998; 20 (1): 1-6
- **Can we identify who will adhere to long-term physical activity? Signal detection methodology as a potential aid to clinical decision making** *HEALTH PSYCHOLOGY*
King, A. C., Kiernan, M., Oman, R. F., Kraemer, H. C., Hull, M., Ahn, D.
1997; 16 (4): 380-389
- **RELATION OF LEVEL OF EXERCISE, AGE, AND WEIGHT-CYCLING HISTORY TO WEIGHT AND EATING CONCERNS IN MALE AND FEMALE RUNNERS** *HEALTH PSYCHOLOGY*
Kiernan, M., Rodin, J., Brownell, K. D., Wilmore, J. H., Crandall, C.
1992; 11 (6): 418-421