LEE KUM SHEUNG CENTER FOR HEALTH AND HAPPINESS

ANNUAL REPORT 2021



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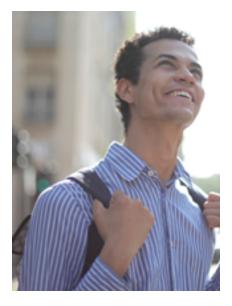
HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

CONTENTS

- Greetings from the Center Co-Directors
- A Year of Change and Resilience
- 8 Health Equity and Well-Being
- Social Relationships
- Emotional Well-Being
- Future Directions
- People
- **35** Selected Publications and Presentations







"The field of medicine has long focused on the prevention, diagnosis, treatment, and cure of disease. But health is more than the mere absence of disease. The emerging concept of positive health takes an innovative approach to health and well-being that focuses on promoting people's positive health assets—strengths that can contribute to a healthier, longer life."

Robert Wood Johnson Foundation



THE LEE KUM SHEUNG CENTER FOR HEALTH AND HAPPINESS AT THE HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH IS LEADING A SEA CHANGE IN POPULATION HEALTH, FOCUSED NOT JUST ON THE ABSENCE OF DISEASE BUT ON THE PRESENCE OF POSITIVE WELL-BEING. We are pleased to share the fifth annual report on the activities and accomplishments of the Lee Kum Sheung Center. As always, we are deeply grateful to the Lee Kum Kee family for their

generous support of our work. As COVID-19 upended lives and disrupted health and wellness across the globe, we have found a renewed sense of purpose in our mission to build a rigorous and interdisciplinary science of positive health and well-being and translate this science to influence practice and policy.

In a year defined by an unprecedented global public health crisis, we knew that our work must reach further than ever before. We hosted our Seminar Series, our Positive Health Interest Group, an annual workshop, and other programming virtually broadening the Center's reach and audience far beyond the Harvard University community, to the general public as well as to scholars and trainees around the world. In addition, the Center developed a COVID-19 Dashboard as part of the "Science and News: Communicating Health and Research" website, which includes evidence-based recommendations for maintaining positive mental well-being during the COVID-19 pandemic. We expanded resources for tracking and measuring resilience. We also grew our educational offerings, including a successful new Summer Internship Program, which launched virtually in 2020, and an academic year internship program that launched in spring of 2021. In July 2021, we will launch a virtual short course on mental well-being and physical health, co-hosted by University College London.

This year, we welcomed Stephanie Child as a new faculty member, and Georgios Kavetsos, an economist, as a visiting scientist from Queen Mary University of London. We also welcomed two research advisors, Karmel Choi and Kristen Nishimi, who have worked with us to develop, curate, and maintain our repositories of resilience-related measures and articles. We continue to foster a new generation of scholars through our annual Dissertation Research Award program. Our Innovations in Positive Health grant program supports promising research, establishing the Center as a hub for primary research and the translation of research into practice and policy. Through all these activities, we are building a network of Center affiliates and alumni— connections that will increase in reach and power over time.

The Center's affiliates, students, and fellows are frequent recipients of grants, honors, and awards. For example, Postdoctoral Research Fellow Anne-Josée Guimond received the Young Investigator Award from the American Psychosomatic Society, and Postdoctoral Research Fellow Farah Qureshi received a Telomere Research Network Pilot Award from Tulane University. Postdoctoral Research Fellow Harold Lee and Research Assistant Ruijia Chen, SD '21, each received an award from the National Institute on Aging-funded Stress Measurement Network for their respective studies examining effects of loneliness and cumulative stress on cardiovascular disease and mortality.

While our work spans multiple disciplines, this report highlights three thematic areas that guided the Center's research and programming in 2020–2021: health equity and well-being, social relationships, and emotional well-being. We also include selected publications that reflect our mission more generally and span both pillars of our research: (1) positive health and (2) translation and communication.

We are sincerely thankful for the Lee Kum Kee family's generosity in establishing the Center. Our accomplishments would not be possible without their support. In a rapidly changing world, we reaffirm our commitment to a positive health framework that will make health and well-being achievable for all.

have Hulyandy

Laura Kubzansky Co-Director, Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Social and Behavioral Sciences

sbanath

Kasisomayajula "Vish" Viswanath Co-Director, Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Health Communication

A YEAR OF CHANGE AND RESILIENCE





At the Lee Kum Sheung Center, we work toward public health that not only defends against disease, but promotes people's ability to thrive. With massive social change, economic disruption, and the myriad physical and mental health consequences of the COVID-19 pandemic, this year clearly demonstrated the need for programs that focus on fostering positive well-being and resilience. It also gave us a chance to model flexibility and healthy adaptation. During the pandemic, the Lee Kum Sheung Center transitioned to virtual platforms, while developing new programming in key areas, particularly education and outreach.

Across our programs, we build the capacity of early-career investigators, serve as a hub for positive health research, and translate and communicate critical research findings to influence practice and policy. We leverage the expertise of leaders in various disciplines. Prompted by a year of change, we also developed new and creative strategies for convening faculty, researchers, practitioners, policymakers, postdoctoral research fellows, and students across Harvard and other institutions.

2020–2021 Impact: By the Numbers



SEMINAR SERIES AND PUBLIC EVENTS Sharing Positive Health Innovations

The Center hosted its 2020–2021 Seminar Series online. These virtual seminars featured speakers from University College London, Harvard Medical School, and The University of North Carolina at Chapel Hill, among other leading institutions. Seminars followed a 50-minute format and focused on health equity and positive well-being. This event series continues to attract a wide audience of students, faculty, staff, postdoctoral research fellows, and passionate community members. Seminars were livestreamed and the recordings are available on the Center's website. A complete list of 2020–2021 Seminar Series events appears at the end of this report.

WORKSHOPS Addressing Crucial Questions

On a yearly basis, the Center convenes a multidisciplinary group of experts to address pressing questions related to measurement, novel research paradigms, the development of interventions, and the translation of science into effective policy. This year's workshop, "Interventions to Modify Psychological Well-Being: What Works, What Doesn't Work, and an Agenda for Future Research," convened virtually in April 2021 to investigate psychological well-being interventions. Workshop participants represented fields such as psychiatry, epidemiology, psychology, organizational behavior, and social and behavioral sciences.

In March 2021, Oxford University Press published an openaccess book, "Measuring Well-Being: Interdisciplinary Perspectives from the Social Sciences and the Humanities," which was a direct product of the Center's 2018 workshop on interdisciplinary approaches to understanding and measuring well-being. This book was co-edited by Center Co-Director Laura Kubzansky. Another product of the workshop was an empirical paper, published in Preventive Medicine in 2020, that provided clear recommendations on the use of wellbeing measures for health research.^{1, 2}

WORKING GROUP ON WELL-BEING MEASUREMENT Quantifying Well-Being

The Center continues to host a working group on the measurement of well-being, co-led by Center Research Scientist Claudia Trudel-Fitzgerald and Center Affiliate Tyler VanderWeele. The group explores challenges related to well-being measurement and research and the differences between various dimensions of well-being. They published a chapter in the "Measuring Well-Being" book and a research article in BMC Public Health in 2019 calling for a broad set of well-being measures, rigorous studies, and interventions focused on psychological well-being.^{1,3}

POSITIVE HEALTH INTEREST GROUP Growing a Network of Innovative Thinkers

The Center's Positive Health Interest Group invites Harvard graduate students, postdoctoral research fellows, and earlycareer researchers to convene once each month during the academic year for peer networking and discussion. The group, led by Center postdoctoral research fellows, hosts presentations by early-career scholars, spotlighting novel research with policy and program applications to improve positive health outcomes for individuals and populations. In addition, the group discusses potential ways to shift the prevailing orientation of public health from disease prevention toward positive well-being. Participants develop professional competencies—including skills related to research, presentations, and career networking—as they build a collaborative, peer-led learning and mentorship community.

¹ Lee, Matthew T., Laura D. Kubzansky, and Tyler J. VanderWeele. Measuring Well-being: Interdisciplinary Perspectives from the Social Sciences and the Humanities. Oxford University Press, 2021.

² VanderWeele, Tyler J., Claudia Trudel-Fitzgerald, Paul Allin, Colin Farrelly, Guy Fletcher, Donald E. Frederick, Jon Hall et al. Current recommendations on the selection of measures for well-being. *Preventive Medicine* 133 (2020): 106004.

³ Trudel-Fitzgerald, Claudia, Rachel A. Millstein, Christiana von Hippel, Chanelle J. Howe, Linda Powers Tomasso, Gregory R. Wagner, and Tyler J. VanderWeele. Psychological well-being as part of the public health debate? Insight into dimensions, interventions, and policy. *BMC Public Health* 19, no. 1 (2019): 1-11.

INNOVATIONS IN POSITIVE HEALTH GRANT Supporting Emerging Knowledge

The Center's Innovations in Positive Health grant supports early-stage research, communication, and translation efforts related to positive health. The competitive grant program is open to all Harvard University faculty, research scientists, and postdoctoral research fellows. The Center prioritizes projects that: (1) integrate the theories, questions, and methods of two or more disciplines; (2) involve a high payoff, opening new areas of inquiry or providing crucial preliminary data for preparing larger grant proposals; and (3) explicitly connect faculty and scholars across departments and schools. This year, three projects were awarded Innovations in Positive Health grants. Two out of the three grants have a global focus.

Aging, Frailty, and Happiness

A study of worldwide associations between happiness and frailty, a condition associated with illness and depression.

David E. Bloom and Maddalena Ferranna, Harvard Chan School; Ariela Orkaby, New England Geriatrics Research, Education, and Clinical Center; and Benjamin Seligman, U.S. Department of Veterans Affairs

Alleviating Time Poverty Among the Working Poor

An investigation into whether and how relieving time poverty—allowing people enough non-work time to take care of their needs—can have sustained psychological, economic, and health benefits.

Ashley Whillans, Harvard Business School

Countdown Global Mental Health 2030

An effort to develop an indicator list of determinants and components of positive mental health and well-being for the United Nations Sustainable Development Goals.

Vikram Patel, Harvard Medical School; Shekhar Saxena, Harvard Chan School

DISSERTATION RESEARCH AWARD Investing in the Next Generations of Researchers

Our annual Dissertation Research Award program supports critical research-related costs for Harvard doctoral students whose work has significant potential to advance positive health. The award helps develop leading researchers and scholars in the field. This year, two students received Dissertation Research Awards:

Measuring the Health Impact of Community Development Interventions

Eric Coles, DrPH '20, Harvard Chan School

An Environmental Justice Approach to Exploring the Connection between Urban Agriculture and Health in Philadelphia

Ashley Gripper, PhD '23, Harvard Chan School

INTERNSHIPS AND EDUCATION Nurturing Scholars in Positive Health

Expanding training and professional development opportunities for graduate and undergraduate students, the Center launched its Summer Internship Program in 2020. In its first year, the Center remotely hosted nine students from Harvard and other local universities. Interns gained research experience with Center scholars and affiliate scientists and participated in weekly seminars. In response to positive reviews, the Center developed an additional academic-year internship for work study-eligible Harvard graduate students in spring 2021.

The Center has also expanded its education programming to junior scholars and early-career researchers through a new summer short course launching in July 2021, co-hosted by University College London. The five-day course, "Exploring the Linkages between Mental Well-Being and Physical Health Outcomes," will provide attendees with a systematic and rigorous overview of the relationship between positive mental well-being and physical health.

PARTNERS AND RELATED PROGRAMS Extending Our Reach

To expand the impact of our work, the Center regularly collaborates with other programs and centers working in positive psychology and adjacent fields. Together with scholars from the University of California, San Francisco, and the University of California, Berkeley, the Center was recently awarded funding from the National Institute on Aging to catalyze innovation and progress of emotional well-being (EWB) research through a four-year project: Advancing Psychosocial and Biobehavioral Approaches to Improving Emotional Well-Being. Collaborators will foster a global transdisciplinary scientific community focused on the pathways by which EWB leads to healthy longevity, including social connection, positive physiology, and healthy behaviors.

Over the past year, the Center has co-sponsored events and collaborated on research with the UCSF Weill Institute for Neurosciences; Osher Center for Integrative Medicine at Harvard Medical School and Brigham and Women's Hospital; the Harvard Center for Population and Development Studies; the Center for Work, Health, and Well-Being at the Harvard Chan School; and the Human Flourishing Program at Harvard's Institute for Quantitative Social Science. The Center also amplifies affiliate work related to our mission. For example, the Center's digital channels highlight Center Affiliate and Harvard Kennedy School Professor Arthur Brooks' weekly column in The Atlantic, "How to Build a Life: A column about pointing yourself toward happiness."









HEALTH EQUITY AND WELL-BEING

The ongoing reckoning with systemic racism in the United States combined with the COVID-19 pandemic's disproportionate impact on people of color and people living on low incomes—highlights enduring health inequities in our society. Much of the Center's work this year has focused on well-being in the context of health equity. We consider how social determinants—the circumstances in which people are born, grow, live, work, and age—affect the ability to achieve well-being on individual, community, and societal levels. The Center is committed to understanding the distribution of positive well-being throughout society, key factors that influence it, and measures that could improve equity in well-being.

The Center highlights the relationship of well-being to health equity throughout its programming and in its funding priorities.

This moment is a clarion call to confront the deep social systems that make it more difficult for Black individuals, communities of color, and people who are poor and marginalized to attain a state of complete physical, mental, and social well-being. Population health cannot be achieved when some people are systematically excluded from having the social, economic, and political power to thrive.

Laura Kubzansky

Co-Director, Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Social and Behavioral Sciences; and

Kasisomayajula "Vish" Viswanath

Co-Director, Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Health Communication

SEMINAR SERIES EVENT

Letting Superwoman Rest: Using Mindfulness to Reduce Cardiometabolic Risk in African American Women



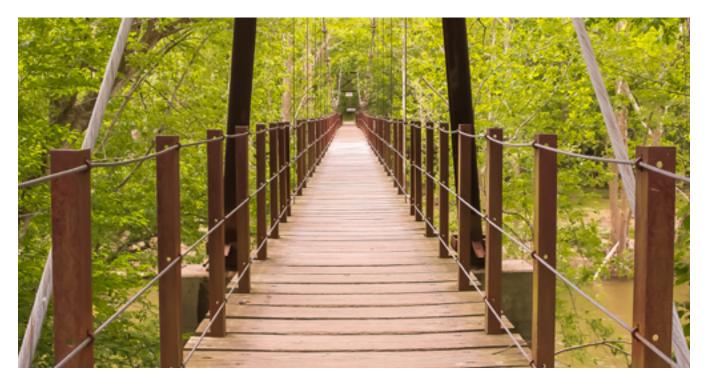
BEING EXPECTED TO FILL the "strong Black woman"/"superwoman" role influences African American women's life experiences and reported stress, according to Cheryl Giscombé, Melissa and Harry LeVine Family Professor of Quality of Life, Health Promotion and Wellness at the University of North Carolina School of Nursing, who gave a talk as part of the Center's 2020–2021 Seminar Series. In her presentation, entitled "HARMONY: The Development of a Culturally-Relevant, Randomized Controlled Mindfulness-Based Stress Management Intervention to Reduce Cardiometabolic Risk in African American Women," Giscombé discussed how her research on health disparities led her to articulate the concept of the "Superwoman Schema." She highlighted research findings suggesting that mitigating effects of this schema may reduce disparities in health—including adverse birth outcomes, lupus, obesity, and untreated depression. She also highlighted the importance of mindfulness as a promising intervention, particularly for African American women. We need to focus on reducing risk for African American women. This study is tailored to comprehensively address gender- and race-specific issues that may impact their risk. Our goal is to help them succeed and sustain their success in lifestyle modifications, weight loss, and cardiometabolic risk reduction.

Cheryl Giscombé

Melissa and Harry LeVine Family Professor of Quality of Life, Health Promotion and Wellness, University of North Carolina at Chapel Hill School of Nursing

INNOVATIONS IN POSITIVE HEALTH GRANT

Well-Being for All: Countdown Global Mental Health 2030



WITH SUPPORT FROM A 2020 INNOVATIONS IN POSITIVE HEALTH GRANT FROM THE LEE KUM SHEUNG CENTER, Shekhar Saxena,

professor of the practice of global mental health at the Harvard Chan School, and Vikram Patel, Pershing Square Professor of Global Health at Harvard Medical School, will develop and implement Countdown Global Mental Health, an ambitious global monitoring and accountability framework for mental health. Decision makers will be able to use this framework to track progress, advise future policy, and inform financial decisions in ways that improve mental health and well-being for all. Saxena and Patel will propose a list of indicators for tracking mental health, create a report based on this list, and conduct a preliminary analysis of determinants of positive mental health and well-being at the global level. Using this report, the research team will pursue additional funding from external sources. This project supports the World Health Organization's Mental Health Action Plan and efforts to reach the United Nations Sustainable Development Goals. The Countdown will highlight critical barriers to positive mental health promotion, identify areas where investment is most needed, and offer an accountability framework for projecting and assessing the returns on existing and new investments.

Shekhar Saxena

Professor of the Practice of Global Mental Health, Harvard Chan School; and

Vikram Patel

Pershing Square Professor of Global Health, Harvard Medical School

DISSERTATION RESEARCH AWARD

Sowing Health: Urban Agriculture and Environmental Justice in Philadelphia



URBAN AGRICULTURE CAN BE A TOOL for growing healthier, more empowered communities. Ashley Gripper, PhD '23, Harvard Chan doctoral candidate in the Department of Environmental Health, received a 2020–2021 Dissertation Research Award from the Center for her investigation of the connections between urban agriculture and positive mental, spiritual, and neighborhood health—as well as in building collective agency and community resilience. Gripper's research highlights positive health outcomes for people of color as a result of urban agriculture in their communities. Her research aims to identify and promote community-driven solutions to health inequities, and consider how strategies of constructive resistance to sociopolitical and economic challenges may also promote health.

Gripper presented her work at the Positive Health Interest Group meeting on November 19, 2020. During her presentation and discussion, attendees considered positive health at the level of the individual and how its principles can be applied to better serve the needs of vulnerable populations and reduce barriers to well-being. Gripper also shared key research with Center affiliates and the wider community during a work in progress seminar on March 22, 2021. My research approaches environmental health with an explicit environmental justice lens. It considers how social relationships, political factors, and historical truths work together to shape and create our various built and natural environments.

Ashley Gripper, PhD '23 Doctoral Candidate, Harvard Chan School



SOCIAL RELATIONSHIPS

CENTER FOR HEALTH AND HAPPINESS | ANNUAL REPORT 2021 | 13 LEE KUM SHEUNG



Good social relationships are positively related to health and well-being, contributing to lower rates of anxiety and depression, higher self-esteem, greater empathy, more trusting and cooperative relationships, and greater longevity.

Over the past several decades, face-to-face social interactions have dwindled in Western countries. Moreover, social distancing to slow the spread of SARS-CoV-2 has increased social isolation and mental health challenges. While prior research has suggested potential health harms associated with social media use, the COVID-19 pandemic has also focused attention on how social media networks may complement or serve as a substitute for face-to-face social interactions.

The Center seeks to understand how social relationships are connected to health and well-being, how social media can be helpful or harmful, and how such factors can contribute to health equity.

FILM SCREENING AND PANEL DISCUSSION

Helping or Harming?: The Social Dilemma



SEVEN OUT OF 10 PEOPLE IN THE UNITED STATES

currently have one or more social media accounts. Center researchers are seeking to understand the role of social media in population health, particularly for youth. On January 12, 2021, the Center hosted a virtual screening and panel discussion on "The Social Dilemma," a 2020 Netflix documentary drama that explores the rise of social media and its adverse effects on society, including its impact on mental health. The panel was moderated by Vish Viswanath, Center co-director, and included Stephanie Child, Center faculty member; Emily Weinstein, research fellow at the Harvard Graduate School of Education; and Jeffrey Hall, professor of communication studies at the University of Kansas. The panelists overwhelmingly favored a more balanced view of social media: routine, mindful use may not necessarily be a problem and could actually be beneficial for health and wellbeing. Social media may help individuals overcome barriers of distance and time to connect with others in ways not otherwise possible.

The virtual event welcomed 80 people from around the world and has been viewed nearly 200 times on the Center's YouTube channel. The Center plans to continue the conversation about social media and health through a workshop and as a thematic focus for the 2021–2022 Seminar Series.

RESEARCH PROJECT

Relationships and Rest: Social Support and Sleep Quality



SUPPORTIVE RELATIONSHIPS are an understudied predictor of sleep quality, but a new study by Center Faculty Member Stephanie Child suggests they are important. In collaboration with researchers at the University of California, Berkeley, Child assessed whether changes in social support over time are associated with sleep quality among both young and older adults. Sleep is an important aspect of overall well-being for physical and emotional health, as it can directly and indirectly affect one's ability to function effectively in the social, work, and family spheres and to take pleasure in daily activities.

This study leveraged longitudinal data from the UC Berkeley Social Networks Study. At multiple time points as part of ongoing data collection, Child obtained self-reported data on sleep quality and changes in romantic partnership status, as well as satisfaction with social support across three domains: social companionship, confidants, and practical helpers. Overall, findings suggest direct and moderating effects of social support on sleep quality. For example:

- Individuals whose desire for practical support increased over time were also more likely to experience troubled sleep.
- Changes in romantic partnership status were associated with changes in sleep quality.
- Having a romantic partner buffered harmful effects of stress on sleep quality compared to those who were not in a romantic partnership.

These findings, published in Annals of Behavioral Medicine in September 2020, suggest that efforts to improve sleep quality should explicitly consider the role of social relationships, especially during periods of stress.¹ This represents an especially promising avenue for positive health promotion in young adult populations, where results were particularly striking.

This study highlights the role of romantic partners on sleep quality. During "normal" times (i.e., in the absence of a major life event), a change to being romantically partnered or married was associated with an increase in troubled sleep, perhaps due to changes in sleep hygiene. However, romantic partnerships were protective of sleep quality during difficult times.

Stephanie Child

Faculty Member, Lee Kum Sheung Center for Health and Happiness

1 Child, Stephanie, Emily H. Ruppel, Mia Zhong, and Leora Lawton. Direct and Moderating Causal Effects of Network Support on Sleep Quality: Findings From the UC Berkeley Social Network Study. Annals of Behavioral Medicine (2020).

RESEARCH PROJECT

A Role for Social Media in Happiness?



SOCIAL MEDIA USE is not directly correlated with happiness, yet it may help people start building the social capital needed for better well-being, according to a study by Center Research Scientist Mesfin Bekalu. Working with Center Co-Director Vish Viswanath and other colleagues, Bekalu examined whether and how social media use interacts with participation in social activities and neighborhood social cohesion to influence happiness among a representative sample of adults in Massachusetts.

Results, published March 2021 in the Journal of Community Psychology, indicated that higher social participation and a perception of stronger neighborhood social cohesion were positively associated with happiness, whereas social media use was not.¹ However, the findings also suggested that social media use may help promote happiness among people who perceive their neighborhoods as less supportive, trustworthy, and close-knit. The study provides additional clarity on the influence of social circumstances, adding to a dialogue in the field of positive health about contextdependent use of social media.

Social media use has increasingly become part of our daily routines. Our findings suggest that the ways in which people are using social media may have more of an impact on their mental health and well-being than just the frequency and duration of their use.

Mesfin Bekalu

Research Scientist, Lee Kum Sheung Center for Health and Happiness

1 Bekalu, Mesfin A., Rachel F. McCloud, Sara Minsky, and Kasisomayajula Viswanath. Association of social participation, perception of neighborhood social cohesion, and social media use with happiness: Evidence of trade-off (JCOP-20-277). Journal of Community Psychology 49, no. 2 (2021): 432-446.



EMOTIONAL WELL-BEING

Recent research has demonstrated that a focus on emotional well-being may be crucial to improving population health. Studying emotional well-being can identify novel pathways for preventing and reducing the burden of chronic disease and improving overall well-being. Work in this field has the potential to inform policy and practice as we look at the role of optimism and other facets of emotional well-being, and in turn, how emotional well-being can promote resilience and greater health span.

RESEARCH SYMPOSIUM

Beyond Longevity: Achieving Well-Being in Healthy Aging

HEALTHY AGING DOESN'T JUST MEAN LIVING LONGER. It means maintaining positive mental and physical health over time. During fall 2020, the Center hosted an interdisciplinary virtual symposium entitled "Beyond Longevity: Achieving Well-Being in Healthy Aging." Co-sponsored by the Harvard Center for Population and Development Studies, the event examined aging from a positive health perspective, with a particular focus on social and psychological well-being. Expert speakers discussed the current understanding of the social and environmental factors likely to support healthy aging, the roles happiness and positive mental health play in physical health and longevity, promising interventions and policy approaches, and ideas for future research. Held over two days, the symposium gathered over 200 virtual attendees from universities, institutions, and companies around the world. The recordings from the two events have been viewed over 300 times on YouTube.

SYMPOSIUM AGENDA

A Positive Health Perspective on Aging: Social Assets (October 21, 2020)

SPEAKERS:

WELCOMING REMARKS Vish Viswanath, Lee Kum Sheung Center for Health and Happiness

KEYNOTE ADDRESS Sandro Galea, Boston University School of Public Health

PANEL DISCUSSION Laura Kubzansky, Lee Kum Sheung Center for Health and Happiness (Moderator)

Sandro Galea, Boston University School of Public Health

Tara Gruenewald, Chapman University

Claudia Trudel-Fitzgerald, Lee Kum Sheung Center for Health and Happiness

CLOSING REMARKS Michelle Williams, Harvard Chan School

A Positive Health Perspective on Aging: Psychological Assets (November 10, 2020)

SPEAKERS:

WELCOMING REMARKS Laura Kubzansky, Lee Kum Sheung Center for Health and Happiness

KEYNOTE ADDRESS Laura Carstensen, Stanford Center on Longevity

PANEL DISCUSSION Lilian Cheung, Harvard Chan School (Co-Moderator)

Vish Viswanath, Lee Kum Sheung Center for Health and Happiness (Co-Moderator)

Laura Carstensen, Stanford Center on Longevity

Anthony Ong, Cornell College of Human Ecology

Robert Waldinger, Harvard Medical School/ Massachusetts General Hospital

CLOSING REMARKS Laura Kubzansky, Lee Kum Sheung Center for Health and Happiness

RESEARCH PROJECT

Optimism Protects Health: Lowering Chronic Disease Risk

OPTIMISM IS GOOD FOR THE HEART—literally. Research conducted by Center Co-Director Laura Kubzansky, Center Research Scientist Claudia Trudel-Fitzgerald, and other colleagues demonstrated a protective effect of optimism on the risk of developing hypertension.¹ In a population of relatively young and healthy active-duty soldiers of the U.S. Army, the study found that those who reported the highest levels of optimism at the start of the study had a 22% lower risk of developing new-onset hypertension during 3 1/2 years of follow-up than those who scored the lowest. This finding was consistent across gender, racial, and ethnic groups. Because people in the military are more susceptible to earlyonset hypertension due to the stressors associated with their jobs, it was striking to see such a significant protective effect over a relatively short follow-up period. Given that early-onset hypertension can lead to many cardiac and cardiovascular problems later in life, optimism could serve as a protective factor that can be fostered early in the lifespan.

It can be hard to imagine how your state of mind might have anything to do with the plumbing in your heart, but if you're feeling happier or more hopeful, you're more likely to want to take good care of yourself by eating healthy, being active, and not smoking.

Jeff Huffman

Associate Professor of Psychiatry, Harvard Medical School; Director, Cardiac Psychiatry Research Program, Massachusetts General Hospital Our findings in the current study suggest it would be beneficial to improve levels of optimism relatively early in life. That's a very grand dream, but it's worth thinking about how to manage it.

Laura Kubzansky

Co-Director, Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Social and Behavioral Sciences

Other research suggests optimism enhances people's ability to regulate both their emotions and their behaviors. People who are more optimistic are less likely to engage in unhealthy behaviors, such as smoking and misusing alcohol, and are more likely to engage in healthy behaviors, like physical activity. Kubzansky and her team are also looking at how optimism may affect health-relevant biological processes. For example, some research suggests that optimism is associated with lower levels of inflammation and higher levels of healthy lipids. Additionally, the team hopes to gather more data on optimism's relationship to the microbiome.

Research increasingly suggests a causal link between psychological well-being and biological processes and behaviors that contribute to cardiovascular health. A scientific consensus statement, published January 2021 in the journal Circulation by Kubzansky, Center Affiliate Jeff Huffman, and a panel of other colleagues, makes a strong case that interventions focused on improving psychological health can also benefit cardiovascular health.²

1 Kubzansky, Laura D., Julia K. Boehm, Andrew R. Allen, Loryana L. Vie, Tiffany E. Ho, Claudia Trudel-Fitzgerald, Hayami K. Koga, Lawrence M. Scheier, and Martin EP Seligman. Optimism and risk of incident hypertension: a target for primordial prevention. *Epidemiology and Psychiatric Sciences* 29 (2020).

2 Levine, Glenn N., Beth E. Cohen, Yvonne Commodore-Mensah, Julie Fleury, Jeff C. Huffman, Umair Khalid, Darwin R. Labarthe et al. Psychological Health, Well-Being, and the Mind-Heart-Body Connection: A Scientific Statement From the American Heart Association. *Circulation* 143, no. 10 (2021): e763-e783.

RESEARCH COLLABORATION

Advancing Psychosocial and Biobehavioral Approaches to Improving Emotional Well-Being



TOGETHER WITH SCHOLARS from the University of California, San Francisco and the University of California, Berkeley, the Center was recently awarded funding from the National Institutes of Health to create a transdisciplinary network of scientists engaged in research on emotional wellbeing. Co-led by Kubzansky, the team is one of five research networks funded to build infrastructure to accelerate the pace of research in this field.

Over the course of four years, the emotional well-being network will build strong research capacity and move the field forward with innovative unifying models, consensus measurement, intervention resources, and mechanistic pilot data. The collaboration aims to:

- Help analyze the role of emotional well-being in long-term health, using cohort studies from 30 nations that are part of the Health and Retirement Study family of studies.
- Promote early-stage intervention research by developing sensitive measures of emotional well-being and interventions that can increase emotional well-being and drive biobehavioral change.
- Create and disseminate valuable research resources for studies of emotional well-being and physical health.

FUTURE DIRECTIONS

The Lee Kum Sheung Center at the Harvard T.H. Chan School of Public Health stands at a critical point, poised to expand our reach. Having established ourselves over the last five years as a hub for positive health research and translation at Harvard and beyond, we are bringing together renowned experts, excellent education, and leading-edge knowledge to create long-term global impact. Our sense of purpose is stronger than ever.

In the next five years, we will further build a pipeline of diverse and exceptional scholars in positive health and well-being by increasing the Center's educational offerings. We will explore opportunities to collaborate with other partners around the world. We are considering new initiatives that will expand the scope of our work, allowing us to pioneer new understanding in areas like the social determinants of well-being, develop and bring together measures and methods for generating new knowledge, and encourage large-scale national studies to begin monitoring wellbeing more directly.

We look forward to solidifying and expanding our role in advancing science—training the next generation of scholars, translating science into policy and practice, and promoting a mindset shift in public health, from a focus on reducing deficits to building assets.

LEE KUM SHEUNG CENTER FOR HEALTH AND HAPPINESS | ANNUAL REPORT 2021 | 24

PEOPLE



The generous gift from the Lee Kum Kee family that created the Center for Health and Happiness also established two professorships within the Department of Social and Behavioral Sciences at the Harvard Chan School. Endowed professorships have been a Harvard tradition for nearly 300 years. They are the highest honor bestowed upon current faculty members at Harvard University and are an essential means of attracting and retaining faculty talent. These professorships establish a permanent legacy of exceptional scholarship.

LEADERSHIP



Laura Kubzansky, PhD, MPH

Center Co-Director and Lee Kum Kee Professor of Social and Behavioral Sciences

Director, Society and Health Laboratory, Harvard Chan School; Co-Director, JPB Environmental Health Fellows Program

Laura Kubzansky has published extensively on the role of psychological and social factors in health, with a focus on stress and positive psychological assets in relation to cardiovascular disease. She also conducts research on whether stress, emotion, and other psychological factors help to explain the relationship between social status and health. Other research projects and interests include: (a) biological mechanisms linking emotions, social relationships, and health; (b) relationships among early childhood environments, resilience, and healthy aging; and (c) how psychosocial stress or assets may interact with toxic environmental exposures (e.g., lead, air pollution) to influence health.

Kubzansky has worked with numerous graduate students and postdoctoral research fellows as a mentor, academic advisor, and dissertation committee member. She is a fellow in the American Psychological Association and the Academy of Behavioral Medicine Research. Kubzansky has served as senior advisor to the Robert Wood Johnson Foundation-funded Positive Health Research program, a member of the Centers for Disease Control and Prevention Healthy People 2020 Health-Related Quality of Life and Well-Being Workgroup, and a member of the American Heart Association Science of Well-Being Expert Panel. She is a principal investigator or co-investigator on a wide variety of grants funded through the Veterans Administration, Robert Wood Johnson Foundation, Environmental Protection Agency, and National Institutes of Health, among others.



Kasisomayajula "Vish" Viswanath, PhD

Center Co-Director and Lee Kum Kee Professor of Health Communication

Professor of Health Communication, McGraw-Patterson Center for Population Sciences, Dana-Farber Cancer Institute (DFCI); Director, Center for Translational Health Communication Science, Harvard Chan School and DFCI; Director, India Research Center, Harvard Chan School; Faculty Director, Health Communication Core, Dana-Farber/Harvard Cancer Center (DF/HCC); Founding Director, Enhancing Communication for Health Outcomes (ECHO) Laboratory, DF/HCC

Kasisomayajula "Vish" Viswanath's work, drawing from literature in communication science, social epidemiology, and social and health behavior sciences, focuses on translational communication science to influence public health policy and practice. His primary research is in documenting the relationship among communication inequalities, poverty, and health disparities, and knowledge translation to address health disparities. He has published extensively on communication inequalities and health disparities, knowledge translation, public health communication campaigns, e-health and the digital divide, public health preparedness, and the delivery of health communication interventions to underserved populations.

In recognition of his academic and professional achievements, Viswanath has received several awards, including the Postdoctoral Mentor of the Year Award from the DFCI; the Joseph W. Cullen Memorial Award for excellence in tobacco research from the American Society of Preventive Oncology; the Dale E. Brashers Distinguished Mentor Award from the National Communication Association; the Outstanding Health Communication Scholar Award, jointly given out by the International Communication Association and the National Communication Association; the J. Mayhew Derryberry Award from the American Public Health Association, for his contribution to health education research and theory; and the CLA Alumni of Notable Achievement Award from the University of Minnesota.

SCIENTIFIC ADVISORY BOARD

The Center's Scientific Advisory Board provides guidance on critical Center activities, goals, research priorities, and programming. Members of the board convene twice a year to evaluate Center impact and suggest areas of investment, such as recruitment, research funding, and future collaborations.



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Associate Professor of Medicine, Harvard Medical School

SELECTED PUBLICATIONS AND PRESENTATIONS

SELECTED PEER-REVIEWED PUBLICATIONS AND BOOK CHAPTERS

*Those listed in bold are Center scholars and affiliates

Amano, H., Fukuda, Y., Baden, M. Y., & **Kawachi, I.** (2020). Is work engagement associated with healthier dietary patterns? A crosssectional study. *Journal of Occupational Health*. 62(1), e12149.

Bekalu, M. A., McCloud, R. F., Minsky, S., & **Viswanath, K.** (2021). Association of social participation, perception of neighborhood social cohesion, and social media use with happiness: Evidence of trade-off (JCOP-20-277). *Journal of Community Psychology*. 49(2), 432–446.

Boehm, J. K., Qureshi, F., Chen, Y., Soo, J., Umukoro, P., Hernandez,
R., Lloyd-Jones, D., & Kubzansky, L. D. (2020). Optimism and
cardiovascular health: longitudinal findings from the Coronary Artery
Risk Development in Young Adults study. *Psychosomatic Medicine*.
82(8), 774–781.

Child, S., Ruppel, E. H., Zhong, M., & Lawton, L. (2020). Direct and moderating causal effects of network support on sleep quality: findings from the UC Berkeley Social Network Study. *Annals of Behavioral Medicine*. kaaa082. Advance online publication.

Cuevas, A. G., **Kawachi, I.,** Ortiz, K., Pena, M., Reitzel, L. R., & McNeill, L. H. (2020). Greater social cohesion is associated with lower body mass index among African American adults. *Preventive Medicine Reports.* 18, 101098.

Dar, T., Osborne, M. T., Abohashem, S., Abbasi, T., **Choi, K. W.,** Ghoneem, A., Naddaf, N., Smoller, J. W., Pitman, R. K., Denninger, J. W., Shin, L. M., Fricchione, G., & Tawakol, A. (2020). Greater neurobiological resilience to chronic socioeconomic or environmental stressors associates with lower risk for cardiovascular disease events. *Circulation, Cardiovascular Imaging*. 13(8), e010337.

Denckla, C. A., Cicchetti, D., **Kubzansky, L. D.**, Seedat, S., Teicher, M. H., **Williams, D. R., & Koenen, K. C.** (2020). Psychological resilience: an update on definitions, a critical appraisal, and research recommendations. *European Journal of Psychotraumatology*. 11(1), 1822064.

Denckla, C. A., Gelaye, B., Orlinsky, L., & **Koenen, K. C.** (2020). REACH for mental health in the COVID19 pandemic: an urgent call for public health action. *European Journal of Psychotraumatology*. 11(1), 1762995.

Dhawan, D., Pinnamaneni, R., **Bekalu, M. A., & Viswanath, K.** (2020). Association between different types of mass media and antenatal care visits in India: a cross-sectional study from the National Family Health Survey (2015-2016). *BMJ Open.* 10(12), e042839.

Gupte, H. A., D'Costa, M., **Ramanadhan, S., & Viswanath, K.** (2021). Factors influencing implementation of a workplace tobacco cessation intervention in India: a qualitative exploration. *Workplace Health & Safety.* 69(2), 56–67.

Harling, G., Kobayashi, L. C., Farrell, M. T., **Wagner, R. G.,** Tollman, S., & **Berkman, L.** (2020). Social contact, social support, and cognitive health in a population-based study of middle-aged and older men and women in rural South Africa. *Social Science & Medicine*. 260, 113167.

Huffman, J. C., Golden, J., Massey, C. N., Feig, E. H., Chung, W.
J., Millstein, R. A., Brown, L., Gianangelo, T., Healy, B. C., Wexler,
D. J., Park, E. R., & Celano, C. M. (2021). A positive psychologymotivational interviewing program to promote physical activity in type 2 diabetes: The BEHOLD-16 pilot randomized trial. *General Hospital Psychiatry*. 68, 65–73.

Joss, D., **Lazar, S. W.,** & Teicher, M. H. (2020). Nonattachment predicts empathy, rejection sensitivity, and symptom reduction after a mindfulness-based intervention among young adults with a history of childhood maltreatment. *Mindfulness.* 11(4), 975–990.

Kim, E. S., Whillans, A. V., Lee, M. T., Chen, Y., & VanderWeele, T. J. (2020). Volunteering and subsequent health and well-being in older adults: an outcome-wide longitudinal approach. *American Journal of Preventive Medicine*. 59(2), 176–186.

Klompmaker, J. O., Hart, J. E., Holland, I., Sabath, M. B., Wu, X., Laden, F., Dominici, F., & **James, P.** (2020). County-level exposures to greenness and associations with COVID-19 incidence and mortality in the United States. NIH Preprint.

Kubzansky, L. D., Boehm, J. K., Allen, A. R., Vie, L. L., Ho, T. E.,
Trudel-Fitzgerald, C. T., Koga, H. K., Scheier, L. M., & Seligman, M.
E. P. (2020). Optimism and risk of incident hypertension: A target for primordial prevention. *Epidemiology and Psychiatric Sciences*. 29, E157.

Legler, S., **Celano, C. M.,** Beale, E. E., **Hoeppner, B. B., & Huffman,** J. C. (2020). Use of text messages to increase positive affect and promote physical activity in patients with heart disease: The Promoting Activity in Cardiac Patients via Text Messages (PACT) pilot study. *Current Psychology.* 39, 648–655.

Lianov, L. S., Barron, G. C., Fredrickson, B. L., Hashmi, S., Klemes, A., Krishnaswami, J., Lee, J., Le Pertel, N., Matthews, J. A., **Millstein, R. A.**, Phillips, E. M., Sannidhi, D., Purpur de Vries, P., Wallace, A., & Winter, S. J. (2020). Positive psychology in health care: defining key stakeholders and their roles. *Translational Behavioral Medicine*. 10(3), 637–647.

Long, K., **Kim, E. S., Chen, Y.,** Wilson, M. F., Worthington, E. L., Jr, & **VanderWeele, T. J.** (2020). The role of Hope in subsequent health and well-being for older adults: An outcome-wide longitudinal approach. *Global Epidemiology.* 2, 100018.

Long, K., Worthington, E. L., Jr, **VanderWeele, T. J., & Chen, Y.** (2020). Forgiveness of others and subsequent health and well-being in midlife: a longitudinal study on female nurses. *BMC Psychology.* 8(1), 104.

Millstein, R. A., Huffman, J. C., Thorndike, A. N., Freedman, M., Scheu, C., Kim, S., Amonoo, H. L., Barclay, M., & Park, E. R. (2020). How do positive psychological constructs affect physical activity engagement among individuals at high risk for chronic health conditions? A qualitative study. *Journal of Physical Activity & Health.* 1–10. Advance online publication.

Mohammadi, N., Aghayousefi, A., Nikrahan, G. R., King, F., 4th, Alipour, A., Sadeghi, M., Roohafza, H., **Celano, C. M.**, Gomez, P. R., & **Huffman, J. C.** (2020). The impact of an optimism training intervention on biological measures associated with cardiovascular health: data from a randomized controlled trial. *Psychosomatic Medicine*. 82(7), 634–640.

Nishimi, K., Choi, K. W., Cerutti, J., Powers, A., Bradley, B., & Dunn, E. C. (2020). Measures of adult psychological resilience following earlylife adversity: how congruent are different measures? *Psychological Medicine*. 1–10. Advance online publication. Ramanadhan, S., Galbraith-Gyan, K., Revette, A., Foti, A., Rackard James, C., Martinez-Dominguez, V., Miller, E., Tappin, J., Tracy, N., Bruff, C., Donaldson, S. T., Minsky, S., Sempasa, D., Siqueira, C., & Viswanath, K. (2021). Key considerations for designing capacitybuilding interventions to support evidence-based programming in underserved communities: a qualitative exploration. *Translational Behavioral Medicine*. 11(2), 452–461.

Regan, M., Fawzi, W. W., & **Patel**, **V**. (2020). Promoting global adolescent health: realizing the transformative potential of schools. *The Journal of Adolescent Health*. 66(5), 526–528.

Ryff, C. D., & **Kim, E. S.** (2020) Extending Research Linking Purpose in Life to Health: The Challenges of Inequality, the Potential of the Arts, and the Imperative of Virtue. In: Burrow A., Hill P. (eds) *The Ecology of Purposeful Living Across the Lifespan*. Springer, Cham.

VanderWeele, T. J., Trudel-Fitzgerald, C., Allin, P., Farrelly, C., Fletcher, G., Frederick, D. E., Hall, J., Helliwell, J. F., **Kim, E. S.,** Lauinger, W. A., Lee, M. T., Lyubomirsky, S., Margolis, S., McNeely, E., Messer, N., Tay, L., **Viswanath, V.,** Węziak-Białowolska, D., & **Kubzansky, L. D.** (2020). Current recommendations on the selection of measures for well-being. *Preventive Medicine*. 133, 106004. Advance online publication.

Victorson, D., Luberto, C., & Koffler, K. (2020). Nature as medicine: mind, body, and soil. *Journal of Alternative and Complementary Medicine*. 26(8), 658–662.

Wayne, P. M., Yeh, G. Y., & Mehta, D. H. (2020). A spoonful of mind-body medicine: If a little is good, is more better? *Journal of Alternative and Complementary Medicine*. 26(1), 4–7.

Weziak-Bialowolska, D., Bialowolski, P., Sacco, P. L., **VanderWeele, T. J.,** & McNeely, E. (2020). Well-being in life and well-being at work: Which comes first? Evidence from a longitudinal study. *Frontiers in Public Health.* 8, 103.

SELECTED PRESENTATIONS

Choi, K. (2020, October). Resilience across ontogeny and phylogeny. World Congress of Psychiatric Genetics. Originally Florence, IT [Symposium Co-Chair, Virtual].

Denckla, C. A., Shear, K., Cozza, S. (2020, September). Grief, loss and pathways to resilience. Voices of 911 Symposium, New York City, NY.

Guimond, A. J., Kubzansky, L. D., Boehm, J. K., Qureshi, F., Trudel-Fitzgerald, C. (2020, December). Trajectories of psychological well-being and their associations with cardiometabolic disease: Findings from the English Longitudinal Study of Aging. American Psychosomatic Society. [Held Virtually]

Kim, E. S. (2020, November). Volunteering and physical health. The Kellogg Company, Battle Creek, Michigan. [Held Virtually]

Kim, E. S. (2020, July). Psychological well-being and physical health in the context of an aging society and policy implications. Department of Psychology, Seoul National University, Seoul, South Korea.

Koenen, K. C., Denckla, C. A., Jha, S., Kim, H. (2020, November). Public health approaches to mitigating the toxic mental health effects of the COVID-19 pandemic. Global Collaboration in Traumatic Stress: Global COVID-19 Related Projects. International Society for Traumatic Stress Studies (ISTSS) Online, USA. [Oral paper].

Lee, H. H., Okuzono, S., Chen, R., Kubzansky, L. D. (2021, March). A cross-national comparison of the effect of loneliness on cardiovascular disease: National longitudinal studies of aging in East Asia vs. the West. NIA-UCSF Stress Measurement Network Meeting.

Qureshi, F., Derks, I. P. M., Williams, M. A., **Koenen, K. C.,** Tiemeier, H., **Kubzansky, L. D.** (2020, May). Adverse intergenerational effects of ethnically divisive social contexts on children's mental health: A prospective cohort study. SRCD Constructing the Other Meeting. Rio Grande, Puerto Rico. – *Cancelled due to COVID-19 pandemic*

Qureshi, F., Boehm, J. K., **Kubzansky, L. D.** (2020, March). Social assets in adolescence and trajectories of psychological well-being in the transition to adulthood. American Psychosomatic Society Annual Meeting, Long Beach, CA. – *Cancelled due to COVID-19 pandemic*

Trudel-Fitzgerald, C. (2020, December). Beyond mental disorders: Does psychological well-being have a place in public health? Invited lecture at the "Public Health and Well-Being" seminar series, Department of Mental Health, School of Public Health, Johns Hopkins University, Baltimore, MD. [Held Virtually]

Trudel-Fitzgerald, C., Chen, R., Lee, L. O., **Kubzansky, L. D.** (2020, December). Does adaptive and flexible coping lead to longer lives? American Psychosomatic Society. [Held Virtually]

SEMINAR SERIES 2020-2021

SEPTEMBER 23, 2020

Mika Kivimäki, University College London

Social Inequalities in Physical and Psychological Health: An Update on Current Knowledge

OCTOBER 28, 2020

Vikram Patel, Harvard Medical School Transforming Mental Health in the COVID Era

DECEMBER 2, 2020

Cheryl Giscombé, The University of North Carolina at Chapel Hill

HARMONY: The Development of a Culturally-Relevant, Randomized Controlled Mindfulness-Based Stress Management Intervention to Reduce Cardiometabolic Risk in African American Women

JANUARY 27, 2021

Ashley Whillans, Harvard Business School

Alleviating Time Poverty: Evidence from a Pre-Registered Longitudinal Experiment

FEBRUARY 24, 2021

George Ward, Massachusetts Institute of Technology Happiness at Work

MARCH 24, 2021

Michèle Lamont, Harvard University

Social Resilience, Hope, and Recognition in the New Gilded Age

APRIL 28, 2021

Jennifer Prah Ruger, University of Pennsylvania Applying the Health Capability Profile

MAY 19, 2021

Carol Graham, University of Maryland

When Twin Public Health Crises Meet: Trends in III-Being and Deaths of Despair during the COVID Pandemic