# **CURRICULUM VITAE**

# Yama (Ya-Wen) Chang, M.A.

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# **EDUCATION**

2018 – 2020	<b>Teachers College, Columbia University</b> <i>M.A. in Clinical Psychology (concentration: Research Methods), GPA: 4.0/4.0</i>	New York, NY
	<u>Master's Thesis:</u> Childhood Gender Nonconformity and Identity Development Amon Transgender Community Sample in the United States	g a Diverse
2008 – 2012	National Taiwan University B.A. in Economics	Taipei, Taiwan
2010	Stanford University Visiting Student	Palo Alto, CA

# RESEARCH INTEREST

Harnessing computational techniques, I aim to leverage large-scale behavioral and language data to extract actionable insights to improve mental health. My goal is to develop accessible, scalable, evidence-based interventions to ameliorate disparities in mental health care. I am also interested in exploring the potential of large language models and artificial intelligence in delivering timely and personalized mental health tools to individuals in need.

## PEER-REVIEWED PUBLICATION

- 1. Szkody, E., **Chang, Y.**, Schleider, J. L. (in press). Serving the Underserved? Uptake, Effectiveness, and Acceptability of Digital SSIs for Rural American Adolescents. *Journal of Clinical Child and Adolescent Psychology*. [Pre-registration] [Code]
- 2. **Chang, Y.**, Buerke, M., Galfalvy, H., & Szanto, K. (2023). Childhood Trauma is Associated with Early-Onset but not Late-Onset Suicidal Behavior in Late-Life Depression. *International Psychogeriatrics*, 1-14. PMID: 37642013 [Open Access]
- 3. Galfalvy, H., Szücs, A., **Chang, Y.**, Buerke, M., & Szanto, K. (2023). Long-Term Suicidal Ideation Profiles in Late-Life Depression and Their Association with Suicide Attempt or Death by Suicide. *The Journal of clinical psychiatry*, 84(2), 22m14469. PMID: 36791367 [PubMed]

## MANUSCRIPTS UNDER REVIEW

- \* indicates equal contribution
- 1. Paine, E., Barucco, R., **Chang, Y.**, Navalta, T., Ehrhardt, A., & Bockting, W. (Revise & Resubmit). "Too Much Trouble": Transgender and Nonbinary People's Experiences of Stigma, Discrimination, and Affirmation in the Workplace.
- 2. Schumacher, E.\*, Chang, Y.\*, Martino, R., Maheux, A., Choukas-Bradley, S., Salk, R., & Thoma, B. (Under Review). Structural Stigma and Suicidal Thoughts and Behavior Among U.S. Sexual Minority Youth.
- 3. **Chang, Y.**, Jackman, K., Dworkin, J., Singh, A., LeBlanc, A., & Bockting, W. (Under Review). Childhood Gender Nonconformity and Identity Development among a Diverse Transgender Community Sample in the United States.

- 1. **Chang, Y.**, Sotomayor, I., Szkody, E., Fox, K., & Schleider, J. L. (In Preparation). Effectiveness of an Online Single-Session Minority Stress Intervention: No Evidence for Variation by Structural Stigma or Social Support. [Pre-registration]
- 2. Sotomayor, I., Chang, Y., Szkody, E., Fox, K., & Schleider, J. L. (In Preparation). Intersectionality and a Minority Stress-Based Single-Session Intervention Benefit Multiply-Marginalized LGBTQ+ Adolescents. [Pre-registration]
- 3. Ahuvia, I., **Chang Y.**, Eberle, J., Chen, S., Shroff, A., Bringmann, L., Mullarkey, M., Schleider, J.L. Using Idiographic Symptom Networks to Predict Change in Adolescent Depression Symptoms. [Pre-registration]
- 4. Schleider, J. L., **Chang, Y.**, Friedman, S., Szkody, E., Mullarkey, M; Weisz, J. Virtual Reality and Web-Based Growth Mindset Interventions for Adolescent Depression: A Three-Arm Randomized Trial. [Pre-registration]
- 5. Grzenda, A., **Chang, Y.**, Kirchner, S., Wang, P., & Clarke, D. (In Preparation). A Systematic Review in Psychological Effects of Gender-Affirming Hormone and Surgical Treatments on Gender Diverse Youth.

# **CONFERENCE PRESENTATIONS**

# **Conference Presentations**

- 1. **Chang, Y.**, Sotomayor, I., Szkody, E., Fox, K., & Schleider, J. L. (2023, November). Effectiveness of an Online Single-Session Minority Stress Intervention: Variation by Structural Stigma? In Ahuvia, I., & McKetta, S. (Chairs), Price, M. (Discussant), *The Role of Structural Stigma in Psychopathology Among Marginalized Youth*. Symposium to be presented at the 57th annual meeting of the Association of Behavioral and Cognitive Therapies, Seattle, WA.
- 2. Sotomayor, I., **Chang, Y.**, Szkody, E., Fox, K., & Schleider, J. L. (2023, November). Intersectionality and a minority stress-based single-session intervention benefit multiply-marginalized LGBTQ+ adolescents. In A.L. Silverman & G. Ramos (Co-Chairs), A. Aguilera (Discussant), *Leveraging digital mental health interventions to increase access to care among marginalized racial and ethnic groups*. Symposium to be presented at the 57th annual meeting of the Association of Behavioral and Cognitive Therapies, Seattle, WA.
- 3. Paine, E., Barucco, R., **Chang, Y.**, Navalta, T., Ehrhardt, A., & Bockting, W. (2022, April). "Too Much Trouble": Transgender and Nonbinary People's Experiences of Stigma, Discrimination, and Affirmation in the Workplace. Paper presented at 2022 Population Association of Americas annual conference. Atlanta, GA.
- 4. Calati, R., Maisto, M., Miranda, R., Thompson, L., Lesanpezeshki, M., Baiden, P., Miller, C., **Chang, Y.**, Wang, P., Grzenda, A., Kirchner, S., & Clarke, D. E. (2021, October) Ethnic discrimination and suicidal thoughts and behaviors: an international-intercontinental collaborative project for a systematic review. In G. Zalsman (Chair), *IASR Metanalysis and Systematic Review Workshop Project*. Paper presented at the 2021 IASR/AFSP International Summit on Suicide Research (held virtually).

# Poster Presentations

- 1. **Chang, Y.**, Brown, V., Whitman, K., Dombrovski, A., & Szanto., K. (2022, April). Hippocampal MRI Volume Differences in Late-Life Suicidal Behavior. Poster presented at the IASR/AFSP International Summit on Suicide Research. Poster accepted at the Society of Biological Psychiatry (SOBP) 2022 Annual Meeting. [Poster]
- 2. Galfalvy, H., Szücs, A., Buerke, M., **Chang, Y.**, & Szanto, K. (2022, April). Long-term suicidal ideation profiles in late-life depression and their association with prospective suicide attempt and death by suicide. Poster accepted at the Society of Biological Psychiatry (SOBP) 2022 Annual Meeting.

- 3. **Chang, Y.**, & Bockting, W. (2021, November). Identity Development Trajectories and Childhood Gender Role Nonconformity Among a Gender and Racial Diverse Sample in the United States. Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies (held virtually). [Poster]
- 4. **Chang, Y.**, Galfalvy, H., Buerke, M., & Szanto, K. (2021, October). Age of Onset of First Suicidal Behavior Determines Risk Factor Profiles in Older Suicide Attempters Focus on Childhood Trauma Experiences. Poster presented at the IASR/AFSP International Summit on Suicide Research (held virtually). [Poster]
- 5. Chang, Y., Brown, V., Whitman, K., Dombrovski, A., & Szanto., K. (2021, October). Hippocampal MRI Volume Differences in Late-Life Suicidal Behavior. Poster presented at the IASR/AFSP International Summit on Suicide Research (held virtually). [Poster]
  - Nominated as a poster finalist (Top 10) for the Early Career Researcher Best Poster Award
- 6. **Chang, Y.**, Galfalvy, H., Buerke, M., & Szanto, K. (2021, October). The Relationship of Childhood Trauma Experiences with the Age of Onset of First Suicidal Behavior in Late-Life Depression. Poster presented at the Pitt Psychiatry Research Day. Pittsburgh, PA. [Poster]
- 7. **Chang, Y.**, & Chen, S. (2020, November). Identifying School-Based Intervention Targets for the Risk of Suicide Attempt Amongst Gender Questioning Youth. Poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies (held virtually). [Poster]
- 8. Tang, S., & Chang, Y. (2020, August). Mental health disparities among LGBTQ Asian and Pacific islander youth: A cross sectional analysis (held virtually). Poster presented at the American Psychological Association Convention.
- 9. **Chang, Y.**, & Bockting, W. (2020, June). Childhood gender nonconformity and identity development among a diverse transgender community sample in the United States. Poster presented at the annual Journal of Clinical Child and Adolescent Psychology (JCCAP) Future Directions Forum (held virtually). [Poster]

# **INVITED PRESENTATIONS**

- 1. **Chang, Y.** (2022, April) *Career Talk: Finding and Interviewing for Post-Bacc Positions as an International Student.* Invited talk presented at NextGen Psych Scholars Program (held virtually).
- 2. **Chang, Y.,** Schumacher, E., & Brian Thoma (2022, April) *The Relationship Between Structural Stigma and Suicidal Thoughts and Behaviors among SGM Youth.* Invited talk presented at the Enrichment Meeting at Longitudinal Research Program in Late-Life Suicide at UPMC Psychiatry, Pittsburgh, PA.
- 3. **Chang, Y.** (2021, August) *The Relationship of Childhood Trauma Experiences with the Age of Onset of First Suicidal Behavior in Late-Life Depression.* Invited talk presented at the Enrichment Meeting at Longitudinal Research Program in Late-Life Suicide at UPMC Psychiatry, Pittsburgh, PA. [Slide]
- 4. Galfalvy, H., Buerke, M., & Chang, Y. (2021, May) Suicidal Ideation Trajectories: Identifying Suicidal Subtypes. Invited talk presented at the Enrichment Meeting at Longitudinal Research Program in Late-Life Suicide at UPMC Psychiatry, Pittsburgh, PA.
- 5. Brown, V. & Chang, Y. (2021, April) Morphometric Alterations in Late-Life Suicide and Relationships with Cognitive Decline. Invited talk presented at the Enrichment Meeting at Longitudinal Research Program in Late-Life Suicide at UPMC Psychiatry, Pittsburgh, PA. [Slide]
- 6. **Chang, Y.** (2021, April) *Career Talk: How to create a position for yourself during pandemic (as an international student.* Invited talk presented at the Teachers College, Columbia University, New York, NY. [Slide]
- 7. **Chang, Y.** & O'Brien, E. (2020, August) *Discussion about "Association of Suicide Prevention Interventions with Subsequent Suicide Attempts, Linkage to Follow-up Care, and Depression Symptoms for Acute Care Settings."* Invited talk presented at the cross-department seminar at UPMC Psychiatry, Pittsburgh, PA. [Slide]

# 2022 – Present Lab for Scalable Mental Health

# Medical Social Sciences and Psychology, Northwestern University

Principal Investigator: Jessica Schleider, Ph.D.

Research Area: Digital mental health interventions, minority mental health, structural stigma

#### Data Scientist

- Serving as the primary data analyst on large-scale projects, leading to six publications /ongoing manuscripts (1 first-author, 5 second-author) in top psychology journals
- Improved 90% in solution efficiency through the implementation of data-driven analytical tools and automation
- Enhanced engagement rates by 35% and improved communication skills by 40% by identifying key metrics and conducting rigorous exploratory and statistical analysis to revamp a staff communication training program
- Developed a machine learning model for depression prediction using time-series data in a healthcare setting, resulting in a 20% improvement in diagnostic accuracy and a 15% reduction in misdiagnosis rates
- Spearheaded best practices for open data management using GitHub and Open Science Framework, including data quality checks, cleaning, dictionary creation, and statistical analysis to promote transparency, reproducibility, and data integrity

# 2020 – 2022 Longitudinal Research Program in Late-Life Suicide | R01MH085651 Department of Psychiatry, University of Pittsburgh Medical Center

Principal Investigator: Katalin Szanto, M.D.

Research Area: Suicide risk in late-life depression

## Senior Research/Data Analyst

- Published two papers (1 first-author, 1 third-author) in top psychiatry journals
- Automated the process of aggregating unstructured data using R from multiple databases, cleaning longitudinal data, transforming raw dataset into analytical base table
- Built statistical models using R for classification and prediction, communicate results to investigators using informative graphics, and write co-authorship manuscripts
- Generated and present data-driven reports using R Markdown to better inform recruitment practices for case-control study, reducing the gender gap to only 8%
- Managed clinical longitudinal databases in REDCap
- Cleaned and prepared datasets for sharing to NIMH Data Archive
- Led independent research projects, including conceptualizing research questions into hypotheses, developing and applying analytic strategies, writing first authorship manuscripts, and present research findings at national and international conferences
- Led data team of 4 individuals and oversee the training of new team members
- Mentored junior colleagues in coding and analyzing data using R programming language

# 2021 – 2022 Gender Minority Youth Study (GMY Study) | K01MH117142 Department of Psychiatry, University of Pittsburgh Medical Center

Principal Investigator: Brian Thoma, Ph.D.

Research Area: Structural stigma and suicide risk among SGM adolescents

### Data Analyst

- Designed, curated, visualized, and analyzed data from GMY Study
- Explored the relationship between structural stigma and suicidal behaviors among sexual and gender minority (SGM) youth

# 2020 – 2022 IASR Meta-Analysis and Systematic Review Workgroup Sponsored by International Academy of Suicide Research

Principal Investigator: Diana E. Clarke, Ph.D.

<u>Research Area</u>: Social determinants and health inequalities in relation to suicide risk with a focus on racial and sexual and gender minority groups

# Co-Investigator

- Conducted systematic reviews under the guidelines of PROSPERO and draft manuscripts
- Conducted preliminary searches in databases (PubMed, EMBASE, PsycINFO, Web of Science)

## 2019 Summer

# **Stress and Development Laboratory**

# Department of Psychology, Harvard University

Principal Investigator: Katie McLaughlin, Ph.D.

Research Area: Impact of childhood adversity on neurobiological mechanisms

# Summer Research Assistant

- Developed stimuli presentation programs using FaceGen and photoshop for fMRI task
- Conducted literatures reviews regrading multi-voxel pattern analysis of fMRI tasks

#### 2018 - 2020

# Program for the Study of LGBT Health | R01HD079603

Division of Gender, Sexuality, & Health

Department of Psychiatry, Columbia University Irving Medical Center

Principal Investigator: Walter Bockting, Ph.D.

Research Area: LGBTQ mental health, minority stress model

#### Research Assistant / Intern

- Collaborated with principal investigators to perform data analysis, data visualization, and presentation, as well as co-author ongoing manuscripts
- Led an independent research project, including developing conceptual framework, analytic strategy, and write first-author manuscript
- Transcribed 26 interview scripts and used Dedoose software for qualitative coding and thematic content analysis

# 2016 - 2017

## Lab of Clinical and Translational Studies

# Department of Psychiatry, Taipei City Hospital and Psychiatric Center

Principal Investigators: Po-Yu Chen, M.D., Ming-Chyi Huang, M.D., Ph.D.

# Clinical Research Coordinator

- Coordinated four national grants of major depressive disorder, schizophrenia, and substance use disorder studies
- Screened, recruited, and ran 200+ sessions with participants at inpatient and outpatient settings
- Maintained the lab's recruitment database by regularly updating participants' eligibility, interest, and participation status for ongoing studies
- Prepared and updated IRB project materials including writing annual reports

## **CLINICAL EXPERIENCES**

## 2017 - 2018

# **Taiwan LGBT Hotline Association**

Supervisor: Chia-Wei Shiu, MSW

## Crisis Counselor

- Answered to 350+ callers and committed 15+ hours a week, including writing clinical reports and attending weekly clinical supervision
- Passed a selective screening process after completing an intensive 16-week clinical training on people centered counseling techniques, crisis management, and interventions

2016 - 2017

# **Lab of Clinical and Translational Studies**

# Department of Psychiatry, Taipei City Hospital and Psychiatric Center

Advisors: Po-Yu Chen, M.D., Ming-Chyi Huang, M.D., Ph.D.

# Research Clinician (Inpatient and Outpatient Units)

- Conducted clinical interviews (SCI-PANSS, C-SSRS, HAM-A, MADRS) and cognitive tests with inpatient and outpatient participants for clinical research studies
- Observed administrations of the M.I.N.I. and the Structured Clinical Interview (SCID) for DSM-5 by licensed clinicians to psychiatric inpatients

# **TEACHING EXPERIENCES**

# 2021 R Workshop

Designed materials and developed a workshop to teach R programming for beginners. The workshop included four sessions, including introduction to R, data wrangling, tidying data, data visualization, and data analysis. Please find my slides and R scripts on my <u>GitHub.</u>

# 2017-2018 **GRE Quantitative Tutor**

Helped college student to improve their score percentile from 30% to 80% for the GRE quantitative test. [My GRE Quantitative percentile: 95% (169/170)].

# **AWARDS & HONORS**

2022	Data Science Fellowship, Correlation One
2021	Queer in STEM Scholarship (\$1250), oSTEM & Queer in AI
2021	Poster Finalist (Top 10), IASR/AFSP International Summit on Suicide Research
2020	Awarded A+ in Computational Psychiatry, Teachers College (TC), Columbia University
	<ul> <li>Only given in rare circumstances per school policy; awarded for exceptional research project</li> </ul>
2019	Program Ambassador, Dept. of Counseling and Clinical Psychology, TC, Columbia University
2019	Graduate Representative Speaker, Admitted Student Day Student Panel, TC, Columbia University
2019	Psi Chi Psychology Honors Society, TC, Columbia University
2018	Teachers College Scholarship (\$2,500, Merit-based), TC, Columbia University

# **SKILLS**

**Statistical/Programming:** R (Tidyverse, RMarkdown, Rshiny, Plotly), Python, SQL, SPSS, HTML, Bash, GitHub **Advanced Quantitative Modeling:** Gaussian mixed modeling, survival analysis, cluster analysis, logistic regression, multilevel regression analysis, supervised/unsupervised machine learning (e.g., regularized logistic regressions, decision tree, network analysis)

Research Data Management: REDCap, OSF, Qualtrics, Dedoose, Sysrev, Zotero

Neuroimaging Skills: FreeSurfer, FaceGen

Coursework: Probability and Inferential Statistics; Applied Regression Analysis; Data Science I; Computational

Psychiatry; Research Methods in Clinical Psychology; Child Psychopathology; Adult Psychopathology

Additional Coursework: HarvardX PH125.8x Data Science: Machine Learning

Languages: English, Mandarin

# PROFESSIONAL AFFILIATIONS

2022 – Present	International Society for Research on Internet Interventions (ISRII)
2019 – Present	Association for Behavioral and Cognitive Therapies; Sexual and Gender Minority Interest Group
2018 - 2020	American Psychological Association of Graduate Students; APA Division 44