Anshul Kumar

Curriculum Vitae as of September 9 2025

Contact Information

Health Professions Education Department
School of Healthcare Leadership
MGH Institute of Health Professions
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Employment

MGH Institute of Health Professions

Department of Health Professions Education

Assistant Professor — *April 2019 – Present*

Part-Time Lecturer — *January 2019 – March 2019*

Department of Genetic Counseling

Assistant Professor — *April 2019 – Present*

Tufts University

Department of Community Health

Part-Time Lecturer — *January 2019 – May 2019*

Global Health Education and Learning Incubator, Harvard University and
Center for Health Decision Science, Harvard School of Public Health

Postdoctoral Research Fellow — *February 2018 – March 2019*

Education

Graduate School of Arts and Sciences, Harvard University

PhD in Sociology — *May 2018*

A.M. in Sociology — *May 2014*

College of Arts and Sciences, Cornell University

B.A. in Sociology, B.A. in Economics — *May 2009*

Written Works

Peer-reviewed publications

Rimmel, L., Taglieri-Noble, K., Pham, R., Tolland, J., Doshi, S., Capobianco, N., & Kumar, A. (2025). Investigating disparities in physical therapy utilization: An intersectionality perspective. *Archives of Rehabilitation Research and Clinical Translation*, 7(3), Article 100465. https://doi.org/10.1016/j.arrct.2025.100465.

Maaz, S., Obeidat, S., Mosher, C. J., Palaganas, J. C., Alshowaier, N., Almashal, M., Abu Alsaud, K., Kumar, A., & Al-Wabil, A. (2025). Prompt design and comparing large language models for healthcare simulation case scenarios. *Journal of Healthcare Simulation*, advance online publication, 1–15. http://doi.org/10.54531/QZGO9534.

Kruse, S. W., Getch, S. E., Kumar, A., & Roffler, M. (2025). Required art-based curriculum improves essential qualities in medical students: A three-year study with in-person and remote art observation experiences. Cureus, 17(4), e82022. https://doi.org/10.7759/cureus.82022.

Kinney, A., Nordon-Craft, A., Kardong-Edgren, S., Kumar, A., & Thompson, A. (2025). Digital recordings of a clinical encounter facilitate reflection in physical therapy students and clinicians. *Frontiers in Medicine*, 11, 1516724. https://doi.org/10.3389/fmed.2024.1516724.

Arja, S. B., Kumar, A., White, B. A., & Thompson, A. (2025). Did the students' satisfaction rates at Avalon University School of Medicine correlate with the occurrence of accreditation site visits? *Medical Teacher*, 47(4), 653–659. https://doi.org/10.1080/0142159X.2024.2359967.

Mousavian, M., Ranganathan, K., Keuroghlian, A. S., Park, Y. S., & Kumar, A. (2024). What are the barriers to health professionals' training on gender-affirming care from patients' and clinicians' perspectives? *Social Science & Medicine*, 351, 116983. http://doi.org/10.1016/j.socscimed.2024.116983.

Klein, R., Snyder, E. D., Koch, J., Volerman, A., Alba-Nguyen, S., Julian, K. A., Thompson, V., Ufere, N. N., Burnett-Bowie, S.-A. M., Kumar, A., White, B. A. A., Park, Y. S., & Palamara, K. (2024). Analysis of narrative assessments of internal medicine resident performance: are there differences associated with gender or race and ethnicity? *BMC Medical Education*, 24(1). https://doi.org/10.1186/s12909-023-04970-2.

Klein, R., Julian, K. A., Koch, J., Snyder, E. D., Jassal, S., Simon, W., Millard, A., Uthlaut, B., Burnett-Bowie, S.-A. M., Ufere, N. N., Alba-Nguyen, S., Volerman, A., Thompson, V., Kumar, A., White, B. A., Park, Y. S., Palamara, K., & Gender Equity in Medicine Workgroup. (2024). Gender differences in clinical performance assessment of internal medicine residents: A longitudinal analysis of the influence of faculty and trainee gender. *Academic Medicine*, 99(12), 1413–1422. https://doi.org/10.1097/ACM.0000000000005884.

Klein, R., Snyder, E. D., Koch, J., Volerman, A., Alba-Nguyen, S., Julian, K. A., Thompson, V., Ufere, N. N., Burnett-Bowie, S.-A. M., Kumar, A., Adair White, B. A., Park, Y. S., & Palamara, K. (2023). Exploring gender and thematic differences in qualitative assessments of internal medicine resident performance. *BMC Medical Education*, 23, 932. https://doi.org/10.1186/s12909-023-04917-7. Correction: https://doi.org/10.1186/s12909-023-05000-x.

Yeo, M. M., Lim, S. H., Kumar, A., & Thompson, A. W. (2023). Calculator for predicting the probability of faculty promotion in an academic medical centre. *BMJ leader*, 06 October. http://doi.org/10.1136/leader-2023-000861.

Kumar, A., DiJohnson, T., Edwards, R. A., & Walker, L. (2023). The application of adaptive minimum match k-nearest neighbors to identify at-risk students in health professions education. *The Journal of Physician Assistant Education*, 34(3), 171-177. DOI: http://doi.org/10.1097/JPA.0000000000000513. Pre-print: https://doi.org/10.35542/osf.io/wtuv6 and https://arxiv.org/abs/2108.07709.

Jafri, F. N., Yang, C. J., Kumar, A., Torres, R. E., Ahmed, S. T., Seneviratne, N., Zarowin, D., Bajaj, K., & Edwards, R. A. (2023). In situ simulation as a tool to longitudinally identify and track latent safety threats in a structured quality improvement initiative for SARS-CoV-2 airway management: a single-center study. *Simulation in Healthcare*, 18(1), 16-23. https://doi.org/10.1097/SIH.0000000000000633.

Mousavian, M., Ranganathan, K., & Kumar, A. (2022). State of educational modalities employed in gender-affirming surgery amongst surgical residencies. *Global Surgical Education*, 1. https://doi.org/10.1007/s44186-022-00065-6.

Jafri, F. N., Dadario, N. B., Kumar, A., Silverstein, S. R., Quintero, F., Larsen, E. A., Fasciglione, K., Mirante, D., Ellsworth, K., Amicucci, B., & Ricca, J. (2021). The addition of high-technology into the Stop The Bleed program among school personnel improves short-term skill application, not long-term retention. *Simulation in Healthcare*, 16(6), e159-e167. https://doi.org/10.1097/sih.0000000000000546.

Jafri, F. N., Mirante, D., Ellsworth, K., Shulman, J., Dadario, N. B., Williams, K., Yu, S., Thomas, J., Kumar, A., Edwards, R. A., Torres, R. E., & Straff, D. J. (2021). A microdebriefing crisis resource management program for simulated pediatric resuscitation in a community hospital: a feasibility study. *Simulation in Healthcare*, 16(3), 163-169. http://doi.org/10.1097/sih.0000000000000480.

Marks, B. E., Waldman, G., Reardon, K., Terrio, S., Kumar, A., Stafford, D. E. J., Garvey, K. C., & Wolfsdorf, J. I. (2020). Improving pediatric endocrinology trainees' knowledge about insulin pumps and continuous glucose monitors with online spaced education: Technology Knowledge Optimization in T1D (TeKnO T1D). *Pediatric Diabetes*, 21(5), 814-823. https://doi.org/10.1111/pedi.13010.

Kumar, A. (2019). Cultures of learning in developing education systems: Government and NGO classrooms in India. *International Journal of Educational Research*, 95, 76-89. https://doi.org/10.1016/j.ijer.2019.02.009.

Teaching materials

Kumar, Anshul. 2024. *Responsible applied statistics in R for behavioral and health data (working title)*. Textbook used for course HE-902 at MGHIHP. https://bookdown.org/anshul302/HE902-MGHIHP-Spring2020/ or http://tinyurl.com/he902stats.

Kumar, Anshul. 2024. *Introductory predictive analytics and machine learning in education and healthcare*. Course book for HE-930 at MGHIHP. https://bookdown.org/anshul302/paml/

Kumar, Anshul. 2021. *MGHIHP HE-802, Spring 2021*. Course book. https://bookdown.org/anshul302/HE802-MGHIHP-Spring2020/.

Kumar, Anshul, et al. Equal first authorship. *Coronavirus Vaccine /* कोरोनावाइरस वैक्सीन. (COVID-19 vaccine information and resources for Indian audiences). https://globalhealtheducation.github.io/.

Software, code, and tools

Project director: Anshul Kumar. Developers: Dennis Eum, Lei Chen, Mohib Jafri. Adaptive Learner App. https://educ-app-2.vercel.app/.

Kumar, Anshul & Edwards, Roger. 2021. AdaptiveLearnalytics: Adaptive Predictive Learning Analytic Tools. https://github.com/readcreate/AdaptiveLearnalytics.

Kumar, Anshul. 2021. Predictive analytics tutorial: identify groups in your data using unsupervised machine learning. http://tinyurl.com/AnshulCluster1.

Unpublished research

Taylor-Drigo, C. A., & Kumar, A. (2025). *Strengths and limitations of using ChatGPT: A preliminary examination of generative AI in medical education.* medRxiv. https://doi.org/10.1101/2025.03.12.25323842.

Kumar, Anshul. 2018. *Innovating in Education: NGO Interventions in New Delhi Government Schools.* PhD Dissertation. Committee: Chris Winship, Orlando Patterson, Katherine Merseth.

Kumar, Anshul. 2013. “The organization and behavior of HIV-affected families in 18 African countries.” (Graduate Qualifying paper). Committee: Martin Whyte, Gunther Fink, Nicholas Christakis.

Kumar, Anshul. 2009. “Food and Nutrition in Kabula – a Qualitative Examination in Western Kenya.” Sociology Honors Thesis at Cornell University. Advisor: David Brown.

Student advising and mentorship

Current graduate students

- Rachel Cox Simms (chair of PhD dissertation committee)
- Emma D'Arpino (chair of PhD dissertation committee)
- Solomon Germossa (chair of PhD dissertation committee)
- Rosemary Samia (PhD dissertation committee member)
- Farrukh Jafri (PhD dissertation committee member)
- Ayman Mohamed (MS scholarly project advisor)
- Abdullah Sakkat (MS scholarly project advisor)
- Lisa-Marie O'Brien (MS scholarly project advisor)
- Janelle Lambert (MS scholarly project advisor)
- Minyang Chow (MS scholarly project advisor)
- Charlotte Taylor-Drigo (MS scholarly project advisor)
- Yan Jiang (MS scholarly project advisor)
- Christopher Chillura (MS scholarly project advisor)
- Joel Yee (MS scholarly project advisor)
- Alisha Williams (MS scholarly project advisor)

Alumni

- Mohammad Mousavian (chair of PhD dissertation committee, MS scholarly project advisor)
- Peter Stallo (PhD dissertation committee member)
- Robin Klein (chair of PhD dissertation committee)
- Sateesh Arja (PhD dissertation committee member)
- Toby Kinney (PhD dissertation committee member)
- May May Yeo (PhD dissertation committee member)
- Egide Abahuje (PhD dissertation committee member)
- Jabeen Fayyaz (PhD dissertation committee member)
- Wed Almutairi (MS scholarly project advisor)
- Schoen Kruse (MS scholarly project advisor)
- Brianna Vaa Stelling (MS scholarly project advisor)
- Margaret Mitchell (MS scholarly project advisor)

Selected Projects

COVID-19 Education and Community Health Worker Training in India
Principal investigator, with Claudia Rosu March 2020 – Present

- Collaboration of 30-40 people from Sinchan Education & Rural Entrepreneurship Foundation, Lahanti Club community group, Universidad Anáhuac Mexico, Tufts University, Harvard University, MGHIHP.

- Delivery of COVID-19 educational lessons and evaluation instruments regarding COVID-19 basics, mask usage, hand hygiene, vaccine, nutrition myths/facts, and MIS-C.
- Mass General Brigham IRB protocols #2020P003752 (PI: Claudia Rosu) and #2020P003554 (PI: Anshul Kumar).
- Partially funded by a $5,000 COVID-19 Small Grant from MGHIHP

Water and Sanitation in Gulu, Uganda July 2018 – Aug 2019
Advisor to organization Water and Health for All

- Advised organization on processing, analysis, and interpretation of survey data related to water quality in Gulu, Uganda.

Pre-Texts for India May 2018 – May 2019
Principal Investigator, with Polly Lauer and Jahnvi Singh

- Conducting one-year controlled pilot to bring Pre-Texts teaching methodology to a network of schools in Coimbatore, Tamil Nadu, India, with specific focus on literacy, math, and health.
- Funded by a $5,000 seed grant from the Lakshmi Mittal and Family South Asia Institute at Harvard University.
- Supervised by Professor Doris Sommer.

Teaching

Courses taught as instructor

- Advanced Statistical Modeling for Health Professions Education (HE902), MGHIHP, Spring, 2020-2025.
- Advanced Quantitative Methods and Measurement (HE802), MGHIHP, Spring, 2019-2021
- Statistics/Predictive Analytics for Health Professions Education (HE930), MGHIHP, Summer, 2020-2024.
- Pharmacy Research Methods Certificate Program, MGHIHP, 2021-2023.
- Introduction to Community Health (CH1), Tufts University, Spring 2019

Courses taught as teaching assistant

Harvard University

- Fundamental Concepts of Public Health (GHP556) with Suerie Moon and Julio Frenk; summer 2015
- Global Health Challenges: Complexities of Evidence-Based Policy (SW24) with Professor Sue Goldie; spring 2014
- Life and Death in the USA (SOC190) with Professor Nicholas Christakis; spring 2012, spring 2013
- The American Family (SOC107) with Professor Marty Whyte; fall 2011, fall 2012, fall 2013

Peer Review

- 4th International Conference on Physics, Mathematics and Statistics. December 2020.

- Fourth International Conference on Social Science Public Health and Education, August 2021.

Additional Skills and Training

Data and Computer Skills

- Proficient in data analysis and manipulation in R, Python, Stata, Google Drive API, Google Colab.
- Statistical and demography training from National Science Foundation Research Experience for Undergraduates Program in Minority Group Social Demography; Population Research Center, University of Texas, Austin. Summer 2008.
- Relevant coursework:
    - Harvard University: Advanced Quantitative Research Methods (taught by Chris Winship), Social Network Analysis (Peter Marsden),
    - Cornell University: Computational Methods for Complex Networks (Gueorgi Kossinets), Population Dynamics (David Brown).
    - San Diego College of Continuing Education: Full-stack web developer certificate (completed spring 2024).

Other selected graduate-level coursework: Charter Schools (with Katherine Merseth and Nelson Smith), Sociology of Development (Martin Whyte), Sociology of Families and Kinship (Martin Whyte).

Language abilities: Native English, intermediate Hindi and French.

Nationality: USA