Is academic medicine prepared to teach about the intersection of childhood experiences and health? A survey of faculty

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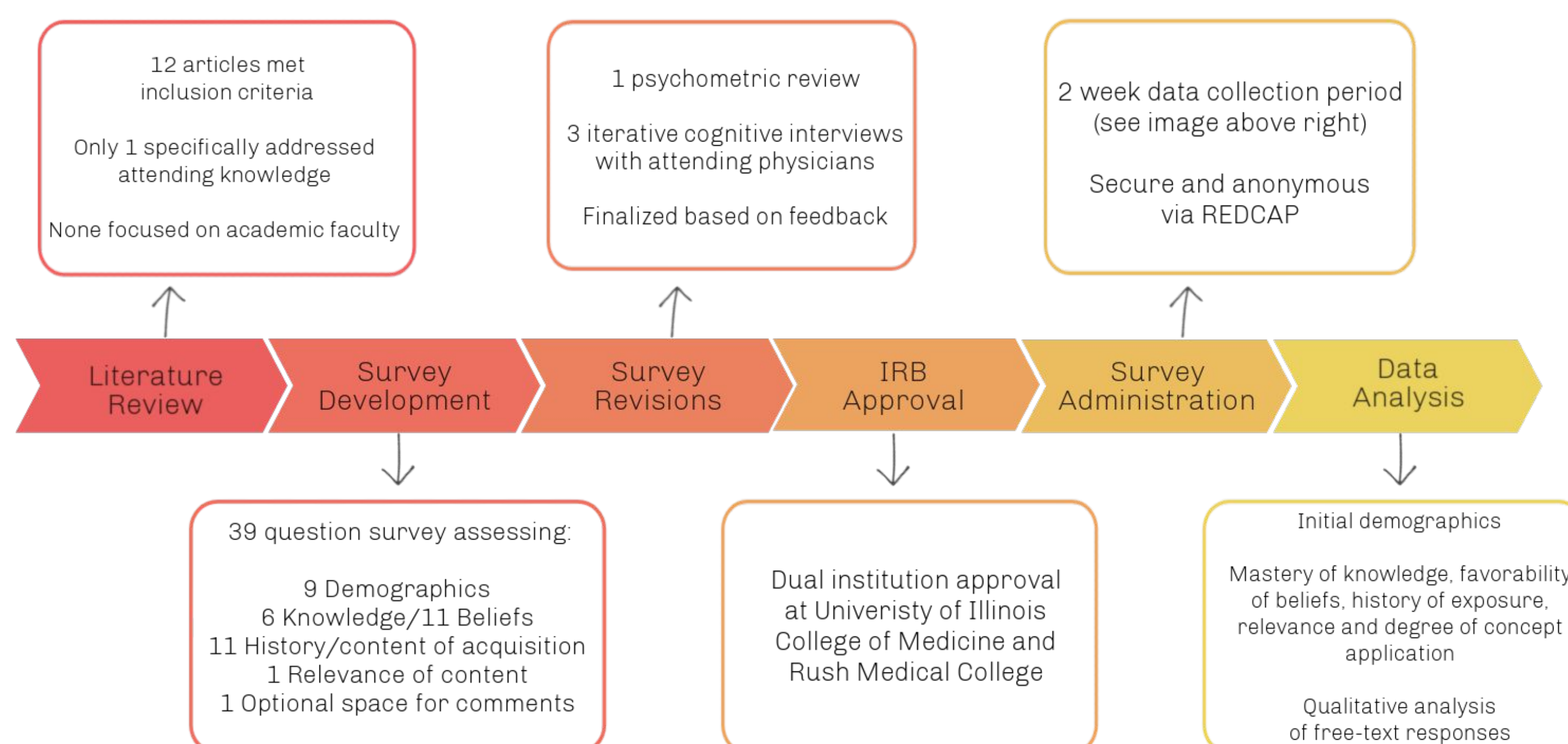[5] Rush University, Department of Internal Medicine

Introduction

Childhood adversity and trauma is a common, preventable, root cause of disease and health disparities across the lifespan.[1,2] Evidence-informed prevention and treatment strategies are emerging.[3] Nevertheless, most practicing physicians studied have not mastered this information.[4]

What is the current state of medical faculty knowledge and beliefs, the timing and route of knowledge acquisition, and are there faculty characteristics associated with mastery?

Methodology

- 12 articles met inclusion criteria
- Only 1 specifically addressed attending knowledge
- None focused on academic faculty

- 1 psychometric review
- 3 iterative cognitive interviews with attending physicians
- Finalized based on feedback

- 2 week data collection period (see image above right)
- Secure and anonymous via REDCAP

Literature Review → Survey Development → Survey Revisions → IRB Approval → Survey Administration → Data Analysis

- 39 question survey assessing:
  - 9 Demographics
  - 6 Knowledge/11 Beliefs
  - 11 History/content of acquisition
  - 1 Relevance of content
  - 1 Optional space for comments

- Dual institution approval at University of Illinois College of Medicine and Rush Medical College

- Initial demographics
- Mastery of knowledge, favorability of beliefs, history of exposure, relevance and degree of concept application
- Qualitative analysis of free-text responses

References

1. Felitti VJ, Anda RF, Nordenberg D. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med* 1998;14(4)
2. Stillerman A. Childhood Adversity and Lifelong Health: from Research to Action. *J Fam Pract.* 2018. Nov;67(11):690-699. https://www.ncbi.nlm.nih.gov/pubmed/30481245
3. Jones NL, Gilman SE, Cheng TL, Drury SS, Hill CV, Geronimus AT. Life Course Approaches to the Causes of Health Disparities. *Am J Public Health.* 2019;109(S1):S48-S55. doi:10.2105/AJPH.2018.304738
4. Szilagyi M, Kerker BD, Storfer-Isser A, et al. Factors Associated With Whether Pediatricians Inquire About Parents' Adverse Childhood Experiences. *Acad Pediatr.* 2016;16(7):668-675. doi:10.1016/j.acap.2016.04.013

Results

- Response rate: 8.8% (n=81, 72 out of 81 report teaching)
  - UIC>Rush
  - Peds>FM>IM>Surgery>Psych>OB/GYN
- Mastery/Favorability (≥80% correct/favorable):
  - 65% achieved mastery - knowledge questions
  - 42% achieved favorability - beliefs questions
  - 19% achieved both mastery and favorability
- Overall, performance did not significantly differ between institutions/depts/race/sexuality/year of training completion
  - Exceptions: More females (76%) achieved knowledge mastery than males (48%) (p = 0.013)
  - More pediatricians achieved both high knowledge and belief scores compared to all other specialties (45% vs. 24%, P = 0.047).
- Exposure to concepts
  - 52% described exposure to ≥9/11, but only 21% through a formal route
  - Institution, gender, specialty, or year of training completion did not significantly affect exposure scores
- 96% believe study concepts are relevant to practice; yet only 22.2% report full incorporation into work
  - 94% of full incorporaters had been exposed to ≥9/11 concepts (p<0.01)
  - Respondents who believed concepts were relevant but were not applying them indicated time was a limitation (P=0.001)
- Open-ended responses aligned with responses to the rest of the survey

Response Rate
by Department

OBGYN Psych Surgery IM FM Peds
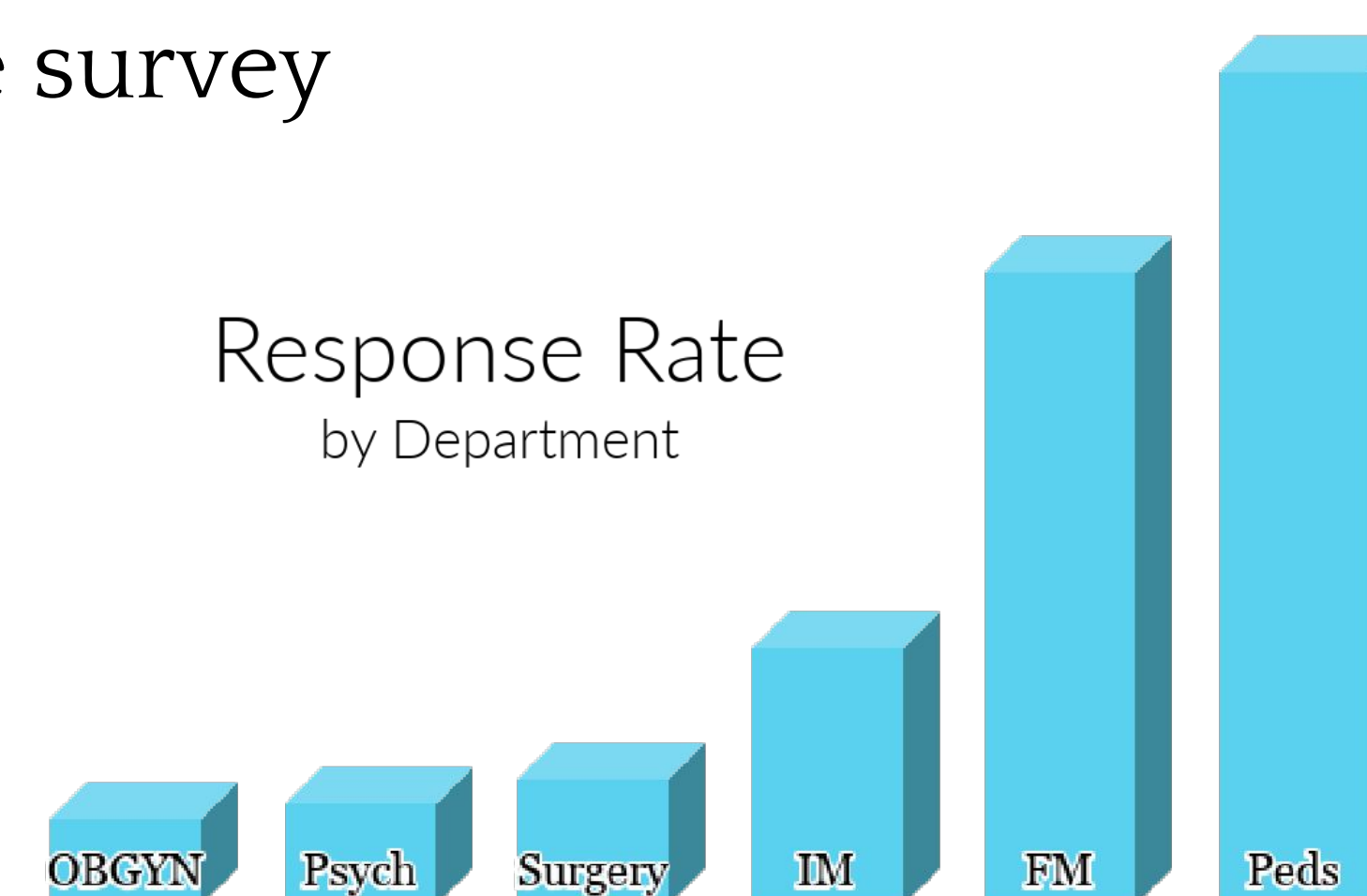
Discussion

- **Most** respondents have **mastered** study **concepts**; the **overwhelming Majority believe** they are **relevant**; **Few** are **fully incorporating** them. **Academic faculty are on their way but not there yet.**
- **Few significant demographic differences** exist for mastery, suggesting **all faculty can learn and apply this material.**
- **Confidence** to **fully incorporate/apply** these concepts is **most strongly associated** with **exposure to content.**
- **Learning this content in formal training** is likely an **important** route to **achieving mastery**.
- Results suggest **intentional faculty development** will be **pivotal** to adequately arm current faculty with tools necessary **to employ these concepts in teaching and clinical care..**

Future Directions

This survey is **the first of its kind** and can propel future research in this essential arena. Next steps include:
1) Expanding the survey sample size and number of institutions after validation
2) Assessing the impact of geography and career-stage of exposure/education on provider comfort and implementation scores
3) Developing and evaluating core competencies and curricula
4) Addressing the multilayer concerns of time constraints and insufficient resources

Curated Resource Link for Faculty