Hidden Curriculum: The Implicit Pathologizing of Minority Populations in Pre-Clinical Undergraduate Medical Education Clinical Case Vignettes

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INTRODUCTION

- Clinical decisions are impacted by implicit bias and availability heuristics[4,7,9]
- Availability heuristics play a crucial role in transforming our impressions of an individual into an impression of the group when people are presented with a high memory load[7]
- Healthcare providers are more likely to express implicit bias towards minority communities leading to differential treatment, missed diagnoses, and poorer patient outcomes due to their minority status[4,5,6]
- As a result, minority patients are more likely to report receiving less empathetic health care, being negatively labeled according to racial stereotypes, assumed to have negative behaviors, and were more likely to feel alienated when receiving healthcare[6]
- LCME core competencies require that medical students to be educated on culturally competent health care: ability of health professionals to function effectively within the context of cultural beliefs, behaviors, and needs of patients from disparate environments and communities[8]
- Medical students report case-based learning to be a more effective way to learn material[3,10]
- Furthermore, case-based learning has been shown to be an effective way for students to develop clinical reasoning skills[2]
- However, there is limited research on the impact of the hidden curriculum in medical education that may perpetuate stereotypes, pathologizing of minorities, or even prejudices[1,9]

Research Question:
Does the presentation of minority identities correlate with health conditions and social history findings in preclinical medical education clinical case study presentations?

METHODS

- Review 2020-2022 clinical case vignettes included in preclinical curriculum from Wayne State University School of Medicine (WSUSOM). Case vignettes will be identified from lectures, review sessions, clinical skills, pharmacovigilance, case-based learning and problem-based learning sessions.
- We define a case as a (1) clinical case, (2) with an inquiry on the part of the learner, in which all the information to be learned, is not presented at first, (3) enough information presented so that there is not too much time spent learning basics, and (4) a faculty teaching and guiding the discussion, ensuring that learning objectives are met

METHODS

Inclusion Criteria: Clinical cases must meet all the following criteria in order to be included in data analysis

1. Focused on a single patient
2. Containing information from real life cases/or scenarios simulating real life
3. Provide an opportunity for students to diagnose/formulate a diagnostic plan and/or treat/manage a patient
4. Gives subjective and/or objective parts of the patient's medical history
5. Open ended or multiple-choice questions proved for students to respond to

Figure 1. Inclusion Criteria

- Cases will be coded for differing demographic factors, identities, behaviors, as well as diagnosis/treatment.
  - Including: age, gender, race/ethnicity, sexual orientation, immigration status, SES, disability, religion, climate, tobacco, alcohol, drinking status, drugs, drug use status, diet, BMI, exercise, sexual history, contraception, housing, occupation, education level, income, insurance, welfare programs, safety, immunization status, access to health care, past medical history, treatments prior to income, and final disease/treatment/outcome for the clinical case vignette.
- Each identifier has predefined categories that were coded for inclusion/exclusion and free response for specific language used in case in order to eliminate coder bias
- Each case will be reviewed by two separate researchers to ensure intercoder reliability

ANALYSIS PLAN

1. Assess the total number/analyze for frequency and distribution of cases reporting:

a. Minority Status Demographics
   i. Including age, race/ethnicity, gender, sexuality, immigration status, disability status, religion, SES
      - *Meaning: what is the frequency in which these demographics/identities appear in cases compared to majority identities (i.e., frequency with which Underrepresented in Medicine (URiM) identities are presented vs. non-URiM identities)*

b. Health conditions, treatments, and outcomes

c. Social History Findings
   i. Including tobacco, alcohol, drugs, diet, exercise, sexual history, housing, occupation, education level, and safety

2. Analyze the frequency/distribution of Minority Status Demographics being presented *with* Health Conditions/Outcomes/Treatments/Social History Findings

a. Assessing for correlations with a single minority identity status

i. Preforming 2 Variable analysis
   - *Meaning: evaluate the frequency of correlations of 1 minority identity occurrence with 1 health condition/outcome/treatment or social finding (i.e., race w/ one health condition)*

ii. Preforming Multivariable Analysis
   - *Meaning: evaluate the frequency of correlations 1 minority identity occurring with multiple health conditions/outcomes/treatments or social findings (i.e., race w/ more than one social history finding)*

b. Analyze for correlations with intersectional minority identity status

i. Correlations of dual minority identities with single finding
   - *Meaning: international analysis (i.e., gender + sexuality or race + gender) w/ one health condition or social history finding*

CONCLUSIONS

- Results will be utilized to assess if a hidden curriculum exists in which minority populations are implicitly pathologized within preclinical medical education clinical case vignettes at WSUSOM
- Outcomes will be utilized to guide curriculum reform

LIMITATIONS

- No prior research assessing curriculum in this way; therefore, we had to create a new methodology
- Potential for bias and human error when coding
- Limited access to cases for data collection due to their removal from the curriculum page by individual lecturers

NEXT STEPS

- Creation of a new, more inclusive, guideline to write case-based clinical case vignettes which details when it is appropriate to include demographics/behaviors
- Assess exam questions and commonly used question banks using this method

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