STROBE Statement—Checklist of items that should be included in reports of cross-sectional studies

Manuscript Title: Beyond Academic Meritocracy: Mentees' Multi-Disciplinary Evaluation of a Peer Mentoring Program and the Relational-Scaffolding Mentorship Model (RSMM)

Item No.	Recommendation	Section & Location in Manuscript	Reported Content / Description
Title and Abstract			
1	*(a)* Indicate the study's design with a commonly used term in the title or the abstract	**Title & Abstract** (Background / Methods)	The cross-sectional, multi-disciplinary evaluative survey design is clearly stated in the Abstract.
	(b) Provide in the abstract an informative and balanced summary of what was done and what was found	**Abstract** (Background, Methods, Results, Conclusions)	Balanced presentation of programmatic objectives, sample size (N), disciplinary subgroups, key relational predictors, and model synthesis.
Introduction			
2. Background / Rationale	Explain the scientific background and rationale for the investigation being reported	**Introduction** (Paras 1–4)	Explores peer mentoring paradigms, academic elitism/meritocracy limitations, disciplinary socialization differences, and theoretical gaps (Vygotsky's ZPD, Communities of Practice).
3. Objectives	State specific objectives, including any prespecified hypotheses	**Introduction** (Study Rationale & Objectives)	Explicitly formulates evaluation of mentee feedback across communicative, academic, and psychosocial domains, cross-disciplinary comparisons, relational predictors, and synthesis of the RSMM framework.
Methods			
4. Study Design	Present key elements of study design early in the paper	**Methods** (Study Design & Setting)	Cross-sectional, institutional evaluative study of the 2025–2026 academic cohort across multiple disciplines.
5. Setting	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	**Methods** (Setting & Program Description)	Islamic Azad University, Yazd Branch; post-intervention administration across five disciplines (Medicine, Nursing, Psychology, Anesthesiology, Biology) following a full-semester mentoring intervention.

6. Participants	Give the eligibility criteria, and the sources and methods of selection of participants	**Methods** (Participants & Sampling)	First-year undergraduate/professional entry mentees paired with senior mentors; census/convenience sampling with clear inclusion criteria (completion of ≥1 full semester of participation) and exclusion criteria.
7. Variables	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	**Methods** (Variables & Operational Definitions)	Outcome variables: Mentee satisfaction and domain scores (communicative, academic, psychosocial). Predictors/exposures: Meeting frequency, interaction duration, mentor GPA, disciplinary affiliation.
8. Data Sources / Measurement	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	**Methods** (Instrument & Measurement)	Structured survey instrument assessed on a Likert scale; psychometric properties (construct validity, Cronbach's alpha α>0.80); institutional mentor demographic/GPA verification records.
9. Bias	Describe any efforts to address potential sources of bias	**Methods** (Mitigation of Bias / Ethical Considerations)	Anonymized responses, independent third-party administration to reduce social desirability/acquiescence bias; voluntary participation without grade dependencies.
10. Study Size	Explain how the study size was arrived at	**Methods** (Sample Size & Sampling)	Post-hoc power verification and census invitation across all eligible mentor-mentee dyads within the participating schools.
11. Quantitative Variables	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	**Methods** (Statistical Analysis)	Categorization of meeting duration (short vs. extended deep interactions), frequency, and discipline tracks; continuous handling of GPA and composite domain indices.
12. Statistical Methods	*(a)* Describe all statistical methods, including those used to control for confounding	**Methods** (Statistical Analysis)	Descriptive statistics (means, SDs, percentages), comparative inferential tests (ANOVA/Kruskal-Wallis across disciplines), correlation analyses, and multiple regression models.
	(b) Describe any methods used to examine subgroups and interactions	**Methods** (Statistical Analysis)	Subgroup analyses stratified across 5 disciplinary cohorts; interaction tests between mentor GPA and evaluation metrics.

	© Explain how missing data were addressed	**Methods** (Statistical Analysis)	Complete case analysis; verification that missing data represented <5% of items without systematic attrition.
	(d) If applicable, describe analytical methods taking account of sampling strategy	**Methods** (Statistical Analysis)	Clustered dyads acknowledged; independent variance verified.
	(e) Describe any sensitivity analyses	**Methods** (Statistical Analysis)	Assessment of non-parametric vs. parametric assumptions across skewed Likert distributions.
	Software Specification	**Methods** (Statistical Analysis)	IBM SPSS Statistics for Windows, Version 27.0 (IBM Corp., Armonk, NY, USA).
Results			
13. Participants	*(a)* Report numbers of individuals at each stage of study—e.g., numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	**Results** (Participant Characteristics)	Response rate reported, total invited vs. eligible vs. completed surveys analyzed across each disciplinary stream.
	(b) Give reasons for non-participation at each stage	**Results** (Participant Characteristics)	Incomplete submissions, opt-outs, or failure to meet minimum session exposure criteria.
	© Consider use of a flow diagram	**Results** (Participant Flow / Textual Summary)	Enrolment flow outlined transparently in narrative/tabular summary.
14. Descriptive Data	*(a)* Give characteristics of study participants (e.g., demographic, clinical, social) and information on exposures and potential confounders	**Results** (Table 1: Demographics & Baseline Characteristics)	Breakdown by sex, discipline, cohort size, mentor-mentee dyad configurations, baseline characteristics.
	(b) Indicate number of participants with missing data for each variable of interest	**Results** (Table 1 footnote / Text)	Item-level missingness reported.
15. Outcome Data	Report numbers of outcome events or summary measures	**Results** (Domain Scores & Tables)	Mean scores, standard deviations, and percentage positive ratings for communicative, academic, and psychosocial mentoring domains.
16. Main Results	*(a)* Give unadjusted estimates and, if applicable, confounder-adjusted	**Results** (Inferential Analysis &	Effect sizes, F-statistics, p-values, beta coefficients, and 95% CIs reported for duration, frequency, and GPA predictors across disciplines.

	estimates and their precision (e.g., 95% confidence intervals). Make clear which confounders were adjusted for and why they were included	Regression Tables)	
	(b) Report category boundaries when continuous variables were categorized	**Results** (Tables & Text)	Defined cut-offs for session durations (<30 min, 30–60 min, >60 min) and GPA quartiles/tiers.
	© If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A	Cross-sectional non-risk educational evaluative study.
17. Other Analyses	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses	**Results** (Subgroup Disciplinary Comparisons)	Paradoxical findings regarding mentor GPA vs. relational rapport in medical vs. non-medical cohorts; communication inertia indices.
Discussion			
18. Key Results	Summarise key results with reference to study objectives	**Discussion** (Para 1: Summary of Findings)	Synthesizes depth/duration primacy over session count, academic meritocracy paradox, and disciplinary variations.
19. Limitations	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	**Discussion** (Strengths & Limitations)	Single-institution setting, self-reported perception metrics, cross-sectional design preventing long-term outcome tracking, potential selection bias of voluntary participation.
20. Interpretation	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	**Discussion** (Theoretical Integration & RSMM Framework)	Grounded in Vygotskian Scaffolding, Safe Failure, and Relational Agency; introduces the Relational-Scaffolding Mentorship Model (RSMM) as an alternative to rigid merit-based matching.
21. Generalisability	Discuss the generalisability (external validity) of the study results	**Discussion** (Implications for Practice & Generalizability)	Relevance to higher health and basic science institutions transitioning away from purely GPA-driven peer mentoring frameworks.
Other Information			
22. Funding	Give the source of funding and the role of	**Declarations** (Funding Statement)	Explicitly stated

	the funders for the present study		
Ethics Approval	State institutional review board approval and ethical standards	**Declarations** (Ethics approval and consent to participate)	Ethics Committee of Islamic Azad University, Yazd Branch (IR.IAU.YAZD.REC.1404.089); written informed consent obtained from all participants.