Bruton Joe M, Cusano A, Leckie J, et al. Mentorship programs in residency: a scoping review. *J Grad Med Educ.* 2023;15(2):190-200. DOI:http://dx.doi.org/10.4300/JGME-D-22-00415.1

Supplementary Data

Search Strategy

Search of Medline (between 1940-2019) and EMBASE (Excerpta Medica Database) and between 1980 and 2019.

1. (Mentor* or Mentee* or protégé*).tw,kw
2. Exp "Internship and Residency"/
3. Education, Medical, Graduate/
4. (Fellow* or house staff or housestaff)
5. ((anaesthesiolog* or anesthesiolog* or emergency medic* or family med* or general med* or geriatric* or gynaec* or gynec* or internal med* or neurolog* obstetric* or paediatric* or pediatric* or psychiatry* or radiolog* or special* or surg*) adj10 (trainee* or training or residen*)).tw,kw.
6. ((intern* or residen*) adj10(medical or medicine)).tw,kw
7. ((graduate or postgraduate or post-graduate) adj10 (doctor* or medic*)) and (educat* or train*)).tw,kw.
8. 2 or 3 or 4 or 5 or 6 or 7
9. 1 and 8

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

Bruton Joe M, Cusano A, Leckie J, et al. Mentorship programs in residency: a scoping review. *J Grad Med Educ.* 2023;15(2):190-200. DOI:http://dx.doi.org/10.4300/JGME-D-22-00415.1

Data Extraction Tool

Extraction		• Data extracted • Data extractors • Include article (Yes/No) Date of reconciliation
Study demographics		• Paper Title • First Author • Year • Journal • Publication Type (abstract, original research article, letter, opinion, review, etc.) • Study Type (survey, interview, descriptive, cohort, RCT, etc.) • Country where study was conducted • No. of participating centers • Funding • Conflicts of interest
Eligibility	Inclusion	• Formal mentorship program (Yes/No) • Canada or US (Yes/No) • Resident Population (Yes/No) • Addresses either design, implementation, evaluation of program or any resident experience with program (Yes/No) • If surgical paper, mentor must do more than simply supervise in OR (Yes/No)
	Exclusion	• External program (not initiated by institution or residency program of interest • Goal of program not resident centered (ie, increasing institution publication rates, trying to get residents to choose a specific specialty) Yes/No • Mentorship program implemented alongside other interventions AND cannot attribute outcomes to mentorship program alone (unless addresses design, implementation, evaluation or resident experience as listed above)

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

Methods	Setting	• Study start date • Study end date • Study site(specify which hospital, clinic residency program)
	Population (specify if program participants do not equal participants in study)	• Residency program(s) being mentored • Mentee PGY(s) • Additional mentee Characteristics (women, ethnic minorities, international medical grads, etc.) • Comparison population (if applicable) • Population mentor • Notes
	Participants (in program)	• Method of recruitment • Number of mentees participating • Number of mentees invited to participate (if optional) • Number of mentee drop-outs • Number of mentors participating • Number of mentors invited to participate • Number of mentor drop outs
	Data collection	• Means of evaluation (i.e. survey, interview, objective resident outcomes such as test scores) • Distribution method (if survey)
	Response rates (in study)	• Method of recruitment into study • Mentees (n/n) • Mentees (%) • Comparison population if applicable (n, %) • Mentors (n/n) • Mentors (%) • Loss to follow-up, exclusions (specify) • Notes

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

Outcomes	Program Implementation	• Who initiated program? • Goal/reason behind program (ie, fulfill a requirement, QI, address burnout) • Basis of program design (ie, pilot program, pre-existing program, validation) • Support required/obtained for program (financial, administrative) • Steps/phases of implementation (describe) • Recruitment/selection of mentors • Integration as part of a larger program (was this a component of a larger intervention?) • If and how program obtained recognition (ie, mentors billing/receiving recognition for contribution, residents meeting educational requirements • Barriers to implementation • Notes
	Program characteristics	• Program mandatory or optional • Mentor assigned or chosen • If mentor assigned, describe methods used to match mentees with mentors • Mentor/mentee ratio • Were meetings during or after work hours? • If during work hours, was there protected time? • Site where meetings took place • Frequency of meetings per program goal • Actual frequency of meetings/attendance rates • Were meetings mandatory/attendance tracked • Does mentor receive any formal training • Length of program • How is mentoring conducted (face to face, email, phone etc.) • Measures to address failed mentor/mentee relationships • Other

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

	Program evaluation	• Methods used to evaluate program (instrument name, describe) • Pilot testing, validity of assessment tool • How often was evaluation sought • Were changes implemented after evaluation, if so what changes
Themes	Resident wellness	• Addressed (Yes/No) • Subjective (ie, a resident felt supported by mentor) • Objective (ie, improved burnout scores)
	Career progression (ie, networking, match success, employment)	• Addressed (Yes/No) • Subjective • Objective
	Improved medical knowledge	• Addressed (Yes/No) • Subjective • Objective
	Improved understanding of values/norms/ navigating environment	• Addressed (Yes/No) • Subjective • Objective
	Research	• Addressed (Yes/No) • Subjective • Objective
	Satisfaction with residency program	• Addressed (Yes/No) • Subjective • Objective
	Success of program (include barriers to success)	• Addressed (Yes/No) • Subjective • Objective
	Other	• Addressed (Yes/No) • Subjective • Objective
	Strengths of paper	• List all

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

Summary	Limitations of paper	• List all
	Summary of paper	• One to two sentences
Risk of bias assessment	Surveys [1]	• Is source population representative of the population of interest? • Is the response rate adequate? • Little missing data? • Is the survey clinically sensible? • Survey was pilot tested? • Survey was reliable and validated?
	Qualitative studies (CASP)[2]	• Was there a clear statement of the aim of the research? • Are the qualitative methods appropriate? • Was the research design appropriate to address the aims of the research? • Was the recruitment strategy appropriate? • Was the data collected in a way that addressed the research issue? • Has the relationship between researcher and participants been adequately considered? • Was data analysis sufficiently rigorous? • Is there a clear statement of findings? • Is the research valuable?
	Cohort studies[3]	• Was selection of exposed and non-exposed cohorts drawn from the same population? • Can we be confident in the assessment of the exposure? • Can we be confident that the outcome of interest was not present at the start of the study? • Can we be confident in the assessment of the presence or absence of prognostic factors? • Was the follow up of cohorts adequate? • Were co-interventions similar between groups?

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024

	Case control studies [4]	• Can we be confident in the assessment of exposure? • Can we be confident that cases had developed the outcome of interest and controls had not? • Were the cases (those who were exposed and developed the outcome of interest) properly selected? • Were cases and controls matched according to important prognostic variables or was statistical adjustment carried out for those variable?
	RCTs[5]	• Was the allocation sequence adequately generated? • Was the allocations adequately concealed? • Blinding: was knowledge of the allocated interventions adequately prevented? • Was loss to follow-up (missing outcome data) infrequent? • Are reports of the study free of selective outcome reporting? • Was the study apparently free of other problems that could put it at risk of bias?

1. CLARITY. Risk of Bias Instrument for Cross-Sectional Surveys of Attitudes and Practices. https://www.evidencepartners.com/wp-content/uploads/2017/09/Risk-of-Bias-Instrument-for-Cross-Sectional-Surveys-ofAttitudes-and-Practices.pdf
2. CASP checklist for qualitative studies. https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf
3. CLARITY. Risk of bias instrument for cohort studies. https://www.evidencepartners.com/resources/methodological-resources/tool-to-assess-risk-of-bias-in-cohort-studies-distillersr.
4. CLARITY. Risk of bias instrument for case control studies. https://www.evidencepartners.com/resources/methodological-resources/tool-to-assess-risk-of-bias-in-case-control-studies-distillersr.
5. CLARITY. Risk of bias instrument for randomized controlled trials:. https://www.evidencepartners.com/resources/methodological-resources/tool-to-assess-risk-of-bias-in-randomized-controlled-trials-distillersr

Downloaded from http://meridian.allenpress.com/jgme/article-supplement/492306/pdf/jgmed22004151/ by guest on 15 August 2024