A Rapid-Review on the Barriers & Facilitators Early Career Doctors Face When Developing Academic Research Skills

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Background

Many early-career doctors struggle to engage in research due to limited time, skills, mentorship, funding, and unclear pathways, despite strong perceived value of academic work and teaching; women disproportionately report barriers such as insufficient flexibility, lack of role models, and mentoring gaps.[1]
A growing group of pre-CCT (pre-Certificate of Completion of Training) doctors transition into full-time medical education, citing better work-life balance and meaningful scholarly development but facing stigma, unclear routes, and fewer opportunities than post-CCT (post-Certificate of Completion of Training) peers.[4]

Aim

To explore barriers and facilitators for early-career doctors entering clinical academic work, and present practical models (collaboratives, fellowships) and implementation steps to build capacity.[1 4]

Methods

- Secondary synthesis of peer-reviewed studies and grey literature (blogs, conference materials), done with the aid of 4 researcher alongside the use of the Covidence platform

- Appraisal: JBI Critical Appraisal Tools for qualitative designs; MMAT (Mixed methods Appraisal Tool)for mixed-methods.

- Sample search string : AB("early career clinical academic research*" OR "resident doctor" OR "junior doctor*" OR "trainee doctor*") OR TI("early career clinical academic research*" OR "junior doctor*" OR "trainee doctor*") OR ("junior general practitioner" OR "trainee general practitioner" OR "clinical research fellow*" OR "clinical research" OR "trainee physician*") AND AB(research*) AND AB(development OR training OR skills OR pathway) AND AB(barrier* OR facilit* OR enable* OR obstacle*).

- Primary inclusion criteria - only data based on Early Career Clinical Doctors had been chosen

Facilitators

- Enjoyment, intellectual stimulation, variety, satisfaction in research/teaching, and advancing medicine; improved work-life balance compared to pure clinical work for some.[1]

- Education roles perceived as "upstream", with diverse scholarly pathways (eg:- research).[4]

- Collaborative research experiences build capability, confidence, and publication outputs.[2 3]

Barriers Faced

- Time/protected SPAs (Supporting Professional Activity) for research/teaching insufficient; competing service pressures limit academic development. [1]

- Funding scarcity and job insecurity; shortage of fellowships/posts; pay differentials vs. clinical roles; limited local opportunities. [1] - Mentoring gaps, especially for women; lack of visible role models; challenges in part-time/flexible routes. [1]

- Pressure to publish/grants; unclear or fragmented career structures; administrative constraints. [1]

- Training system inflexibility; lack of guidance when transitioning to education-focused roles; perceived lower status of education careers among peers.1

Proven Models

Early Career doctors face many issues when trying to change career paths but certain structured models help make that transition easier, some of which I had come across during my research.[2]

1) Trainee-led research collaboratives (eg. West Midlands Research Collaborative (WMRC), Birmingham, UK[2])

principles: committed trainees, clear authorship credit, senior mentor, trainee leadership, strong links to trials units/research networks, efficient administration, and regional partnerships.[2]

2) Clinical Research Fellowship (CRF) programmes

- Structured 12-week model: critical appraisal, systematic searching, statistics, EBP implementation, writing/presenting; protected time; facilitator support.[3]

- Impacts: confidence, interdisciplinary collaboration, presentations/publications, progression to higher degrees; practice changes.[3] - Success factors: organisational sponsorship (fund backfill), visible mandates, implementation expertise; team-based project selection aligned to safety/quality priorities.[3] 3)

Transition pathways into medical education (pre-CCT) - Pull factors: work-life balance, identity alignment, meaningful impact; identity milestones via MMedEd/PGCert and research outputs.[4] - Needs: clear guidance, parity of esteem with clinical roles, transparent criteria for senior educator posts not solely based on CCT; supportive networks to counter stigma.[4]

To conclude, we should support and promote structured models like trainee-led research collaboratives and clinical research fellowships to build research capability, confidence, and outputs. [2,3]

Reference

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