

Benefits, barriers and enablers of mentoring female health academics: An integrative review

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Abstract

This integrative literature review synthesizes the primary research evidence on mentoring female health academics published from 2000 to 2018, to identify the benefits, enablers and barriers to mentoring women. The need for this review is underpinned by the magnitude of change in higher education, the high number of women in health disciplines, limited progress in advancing women's academic careers, escalating role expectations, faculty shortages and staff turnover. Data were sourced from Scopus, PubMed, EMBASE and Cumulative Index of Nursing and Allied Health Literature. Twenty-seven studies were included. Although effective mentoring facilitates personal and career development, academic craftsmanship, psychosocial support and job satisfaction, it is complicated by organizational factors and personal and relational dynamics. Enablers of mentoring are mentor availability and expertise, supportive relationships, mutuality and responsiveness. Lack of, or inadequate mentoring compromise women's job satisfaction, career development and academic productivity. Providing female health academics access to experienced, well-connected mentors with common interests who are committed to advancing their career, is an investment in optimizing potential, promoting supportive work environments and increasing productivity and retention. Realizing the institutional potential that mentoring female health academics offers, is contingent on academic leaders valuing mentorship as faculty business and understanding the role that the contemporary academic environment plays in achieving mentoring outcomes. Further empirical and longitudinal research is needed to evaluate effective approaches for mentoring women in the contemporary academic environment.

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Introduction

Academic mentorship features prominently in orientation, support of new faculty transitioning to the academic role, faculty development, career advancement, job satisfaction and retention [1–4]. However, the reforms and turnover in higher education over the past two decades [5–7] have made mentoring more challenging, particularly for women. The restructuring of the academic workforce and intensification of academic work [5, 8–10] have resulted in lower job satisfaction, increased turnover and faculty shortages [11–13]. The limited mentorship available to female academics is compounded by the continuing lack of female representation in senior academia and ageing of the professoriate [14–16]. These changes have implications for providing mentorship, particularly in faculties of health where a number of disciplines such as nursing, psychology, physiotherapy, pharmacy, and occupational therapy, are predominantly female [11, 13, 17].

The roots of mentoring lie in Greek mythology where a mentor was considered a sage and trusted counsellor [18, 19]. Traditionally in higher education, mentorship has been seen as a long-term mutually beneficial relationship between a junior and senior academic [3, 4]. While much attention has been given to traditional dyadic mentoring and the attributes of good mentors, scant attention has been given to the shifting academic environment and its influence on mentoring outcomes.

Recent changes in higher education have spawned alternative forms of mentoring such as collegial, facilitated peer, functional, online and distance mentoring [2, 20, 21]. A panel of medical academic experts in the USA concerned with the lack of conceptual clarity around mentoring, re-conceptualized it as a construct:

...that may vary along a continuum from informal/short-term to formal/long-term in which faculty with useful experience, knowledge, skills, and/or wisdom offers advice, information, guidance, support, or opportunity to another faculty member or student for that individual's professional development (p. 67) [19].

This more flexible conceptualization of mentoring reflects efforts to adapt to the restructured higher education environment which has become a corporatized global knowledge industry [6, 7, 22]. The legacies of corporatization have been casualization of the workforce, demanding workloads, declining government funding and pressure on academics to meet escalating teaching and research performance expectations [5, 8–10, 22]. Female health academics have been particularly vulnerable to casualization [13, 15, 16]. Reliance on part-time, short-term sessional or adjunct positions, have eroded working conditions and job satisfaction, created unprecedented job insecurity and led to attrition [9, 11, 23, 24].

Despite significant attention to advancing women's careers in academic medicine, only 'modest' progress has been achieved [2, 25]. As with other faculties, obstacles to women's academic advancement have included organizational barriers, staff turnover, gendered roles, family responsibilities [14, 16, 25, 26] and double standards [26]. Mentorship, though often lacking [2–4], has been proposed as a solution [1, 27]. The need for mentorship is further justified by the lack of qualified faculty and urgent need to recruit and retain new staff [2, 4, 13, 28].

In a systematic review of mentorship in academic medicine, Sambunjak et al. [4, 29] highlighted a lack of clarity about the effectiveness of strategies to enhance mentoring for women and the impact of gender on the mentoring dynamic. For this review, our aim was to synthesize the evidence available on the provision of mentoring for female health academics, identify the benefits, enablers and barriers to mentoring women, gaps in knowledge and the consequences of a lack of, or inadequate mentorship.

Methods

Review process

We adopted an integrative review process based on the five-stage process proposed by Whittemore and Knafl [30]: developing the review question, searching the literature, data collection, discussion of results and presentation of integrated findings. The integrative approach was chosen because it accommodates different methodologies and levels of evidence and provides a rigorous approach that is conducive to reviewing, analysing, and synthesising the primary research literature and generating comprehensive practical, conceptual or theoretical understanding [31, 32].

Although diversity is a key strength of the integrative review process, it renders quality appraisal somewhat problematic and limiting [30]. Whittemore and Knafl [30] argue that while issues such as methodological soundness and authenticity are important, studies should not be excluded on the grounds of quality appraisal. To capture informational value, no studies were excluded based on quality.

Review questions

Our research questions were: What are the benefits, barriers and enablers of mentoring female health academics, the consequences of a lack of, or inadequate mentoring, and the gaps in knowledge about mentoring women?

Literature search strategy

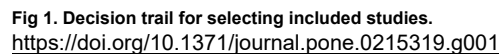
We conducted a systematic and rigorous search in July 2018 across the electronic databases considered to encompass a wide-ranging multidisciplinary span of research relevant to the healthcare domain: PubMed, EMBASE, CINAHL and Scopus. Boolean connectors AND, OR and NOT were used to combine search terms including mentor*, women, female, higher education, universit* and academi* (S1 Table).

Inclusion and exclusion criteria

Our search criteria incorporated peer-reviewed primary research on the mentorship of female health academics published in English from 2000 to July 2018. Research articles on mentorship where the majority (>90%) were female participants or those reporting gendered findings were also included. We excluded articles published prior to the year 2000 because of the significant changes occurring in higher education that have influenced the need for mentoring and women's access to mentorship. Reviews, theses, conference proceedings and editorials were excluded, as were studies involving students and clinicians.

Data collection

The database search generated 815 records. After removing duplicates, 372 potential studies were identified. Three authors independently screened the titles and abstracts of prospective papers against the inclusion criteria and identified 57 studies. In the case of disparities, consensus was achieved by examining the full-text and collaborative discussion. Through this systematic process, 34 studies were removed leaving 23 for inclusion. After scanning reference lists of included and review papers, four additional studies were identified, yielding a total of 27 (Fig 1).



A summary table was generated synthesizing the data from included studies. Data extracted included author(s), year of publication, country of origin, purpose of study, sample, design and data collection, method(s) of analysis and significant findings germane to the review aims (Table 1). Results were synthesized regardless of the level of evidence in keeping with the integrative review process which seeks to capture the breadth of evidence available [30]. To address the research questions and facilitate the synthesis of disparate data, we categorized and thematically analysed the findings to identify recurring relationships [30]. Finally, we developed a concept matrix as suggested by Torraco [32] to map thematic content to source studies.

[illegible]

system [40, 44]. The facilitated peer mentorship model [41, 47, 57] increased the academic capability and publication output of junior female faculty to such an extent that many of the participants continued to work with the original peer mentoring group after completing the program [47].

Psychosocial support.

Having a mentor fostered psychosocial support by providing encouragement, motivation, confidence, assertiveness, a sense of caring, inspiration and guidance [36, 39, 52, 59]. Additionally, mentors provided professional advocacy which facilitated social networking, inclusiveness, a supportive framework and camaraderie [39, 59].

Job-satisfaction.

Mentoring was associated with job satisfaction, tenure and retention [36, 41, 57] though not without caveats. Dutta, et al. [39] found that although mentoring positively impacted promotion and anxiety-contentment, there was no evidence that it improved job satisfaction and attributed this to the local environment and institutional turmoil. Although Jeffers and Mariani [44] reported no significant differences in career satisfaction scores and intent to stay between those who were or were not mentored, these results should be interpreted cautiously due to the low response rate.

Enablers of mentoring

Mentor availability.

The availability of mentors was key to female faculty having access to mentoring [33, 35]. Availability also involved suitable mentors being willing and having time to mentor, keeping in touch regarding progress and being responsive to mentees' needs [50, 54, 55]. Hybrid models of mentorship such as facilitated peer, group mentoring and collaborative distance mentorship effectively circumvented the lack of available senior women mentors [55, 57, 58, 60].

Mentor expertise.

Having access to an experienced mentor with expertise in clinical practice, teaching and research facilitated role modelling [36]. Mentor expertise was also associated with strategic planning, clinical and teaching experience [34], academic guidance, professional decision-making and building professional networks [50].

Supportive relationship.

The efficacy of mentorship was enhanced by having a supportive relationship [33, 40, 59], particularly when cultural expectations were honoured and mentees received ongoing support [40]. To be effective, mentors needed to respect and value the mentee as a person as well as a professional [36], listen to their ideas and concerns and help mentees develop their independent academic identity [55].

Mutuality.

Repeated references to effective mentoring necessitating a certain rapport and 'chemistry' were reinforced by studies demonstrating that matching mentors and mentees based on mutual interest and shared understanding achieved better outcomes for both [40, 51, 54]. Whereas women, especially lower ranked faculty, preferred mentors in the same department or institution, with similar career and personal interests, those from ethnic minorities and foreign-born faculty considered having the same background important [35]. For some mentees, the sensitivity of the mentor was more important than gender [45]. While some female mentees reported having no gender preference in mentors [58, 59], others wanted female mentors who were role models at different stages of life and career who could provide advice on finding a healthy work-life balance [40, 51].

Facilitated and collaborative peer mentoring were valued for taking the power out of the mentoring relationship and fostering shared understanding. A benefit of facilitated peer mentoring was that it involved senior academics overseeing peer mentors and required limited institutional resourcing. This form of peer mentoring was valued as a successful long-term strategy to provide women access to colleagues who understood their situation, shared their academic interests and sought to progress their academic skills to achieve career goals [47, 57].

Responsiveness to shifting needs.

One of the defining needs for female academics in the studies reviewed, was for mentors to be responsive to their shifting needs over time. The need for sameness between mentors and mentees reduced with age and experience [35]. There was recognition that 'shifting needs' could be addressed by multiple mentors with different skills [45]. Wasserstein, et al. [58] found that having multiple mentors achieved more than the dyadic model and related strongly to job satisfaction.

Although over two thirds of the articles reviewed provide a body of evidence supporting the value of mentoring for female health academics, there were signals that the workplace was not always conducive to mentorship or realising its potential.

Barriers to mentoring

Personal and relational dynamics.

Personal and relational barriers to mentoring for female faculty included the variable quality of available mentors and incongruent assignment of mentors [54, 55]. The often lower status and profile of female academics, together with the need to align personal factors and ensure a good match, limited the access female faculty had to quality mentors [40, 54]. Women often found it difficult

and time-consuming to find a suitable mentor with whom they shared similar interests [46] and some men reported difficulty giving criticism to women [45]. Personal and relational dynamics were compounded for some women due to their individual attributes such as age, gender, cultural differences, past experience and fluctuating needs [40, 58].

The power differential inherent in the hierarchical structure of traditional dyadic mentoring relationships represented an important relational dynamic that sometimes rendered mentees vulnerable to exploitation [37, 45, 50, 53, 56]. Inappropriate mentor behaviour such as bullying, and incivility had a significant negative impact on mentee's mental health and well-being [44]. Adopting a top-down approach to mentoring, without considering personal, cultural and relational factors was perceived counter-productive [40, 55]. Conversely, choice, facilitated peer, collaborative and collegial mentoring, were seen to alleviate power, vulnerability and exploitation [55].

Organizational factors.

Organizational barriers to mentoring female faculty included the lack of mentoring available to women [38, 46, 51, 53], lack of senior women available to mentor [45], lack of mentors with specific expertise such as research [54] and shortage of mentors with mutual interests to relate to [40, 54]. Lack of time was another impediment for mentors and mentees as often they were both too busy and over-extended [46, 55, 56]. There was variable willingness to assist less experienced staff [56], a factor potentially exacerbated by the lack of institutional support; valuing of mentoring in workloads, performance expectations and promotion criteria, and incentives to mentor such as dedicated time and remuneration [55, 56].

Consequences of a lack of or inadequate mentorship

Eleven of the 27 studies reviewed identified the consequences of a lack of, or inadequate mentoring to be decreased job satisfaction, limited career development and reduced academic productivity.

Decreased job satisfaction.

Lack of mentorship increased job stress and psychological disempowerment, limited women's networking opportunities and detracted from job satisfaction by creating a sense of isolation, discontent and discouragement [35, 43, 44, 46].

Limited career development.

Without adequate mentoring, career development, academic productivity and promotion were compromised [34, 38] and women were more likely to consider leaving academia [44, 46, 53].

Reduced academic productivity.

The studies provide evidence indicating links between the lack of or inadequate mentoring and factors that disrupt or compromise academic productivity by limiting effective transition to the academic role, networking, academic craftsmanship and collaboration [38, 44, 46, 56].

Gender issues in mentoring

More than half of the articles reviewed highlighted specific gender issues. Despite women more often considering mentoring more important than men [56], and demonstrating significantly greater improvement in professional development from mentoring [42], women were less likely to have mentors or to receive formal mentorship early in their career compared to men [43, 49].

Many studies reported not having enough senior women to mentor junior women [38, 45, 46, 53]. In general, women were more likely to be mentored by men [37, 43, 51, 54], although they preferred female mentors to seek better advice on career-life planning [61], work-life balance [51, 55], and timing of maternity leave [55]. Koopman and Thiedke [45] suggested that multiple mentors targeting career and lifestyle issues may suit female faculty.

While Wasserstein, et al. [58] found no significant differences in satisfaction with mentoring between those with a mentor of the same or different gender, Ramanan, et al. [50], considered gender issues in mentoring equally important for women and men.

Discussion

This review has synthesized the research evidence about mentorship generated in the aftermath of corporatist changes in higher education, with the specific intent to identify the benefits, enablers and barriers to female health academics accessing suitable mentorship, the consequences of the lack of, or inadequate mentorship, and gaps in knowledge. The results, though somewhat limited and the evidence variable and context-bound, reinforce the value of mentoring female health academics as an ideal strategy for improving academic craftsmanship and productivity, promoting women's career advancement, building female mentoring capacity and promoting retention, issues that resonate with the broader literature [1, 4, 16, 28].

The personal, professional and institutional benefits of mentoring women feature prominently in this review. The accrual of benefits over time are also congruent with the findings of others [1, 28] and augur well for advancing women's academic careers. These beneficial outcomes of mentoring are of strategic value to the new knowledge economy which, like other social institutions, has become preoccupied with performance expectations, measured outputs and status [8, 62].

For the 'craftsman', the driving motive for performance is mastery [62] and the pursuit of excellence requires committed physical effort, skilled engagement and communal understanding of the tacit knowledge and skills required to produce excellent outcomes [62]. The notion of 'craftsmanship' has been applied widely, including in the health sciences [62, 63]. In the management sciences, the notion of 'academic craftsmanship' has been applied to denote 'the noble and socially responsible pursuit of perfection in creating new understandings about the world of organizations' (p. 1214) [64]. In this review, academic craftsmanship was

considered as the mastery of skills associated with being a successful academic; that is, proficiency in teaching, research, manuscript and grant-writing, community service, strategic networking and collaboration, maintaining professional visibility, and ability to navigate higher education, manage difficult situations and negotiate desired outcomes. As such, the concept aligns well with outcomes that have been attributed to mentorship such as personal and professional development, academic productivity and becoming a successful academic [1].

Arguably, the notion of academic craftsmanship in the context of mentoring, fits like a hand in a glove, whereby the master academic craftsman, guides the development of a novice or junior craftsman, teaching them their craft somewhat like an apprentice; supporting, coaching, reviewing and refining their mastery of the role and promoting their status in the field [62]. However, it is salient to note that the threats to craftsmanship in the context of contemporary healthcare [62, 63], echo changes in higher education, particularly, the marginalisation and 'invisibility' of 'peripheral' sessional staff, often segregated from other staff and reliant on electronic media for guidance and connectivity [9].

Factors enabling mentoring of female health academics were the availability of a suitable mentor, mentor expertise, supportive relationships, mutuality and responsiveness to shifting needs. However, similar to our findings, others have found that women have limited access to suitable senior female mentors and that personal and relational factors compromise mentorship between men and women [2, 4]. Participants without mentors and those with unhelpful mentors sought alternatives through 'trial and error', attending nurse educators' conferences, blog sites, watching experienced faculty teach and seeking informal mentors [44]. Changes resulting from corporatizing higher education, together with the ageing of the professoriate, have compounded this already fraught situation [4] and further limited the number of senior women faculty able and willing to mentor [2, 11, 16]. The unintended legacies of these changes in higher education have exacerbated the challenges of providing mentorship; especially for women who bear the brunt of casualization, work-intensification and conflicting role priorities [9, 14, 26].

Sambunjak, et al. [4] identified a lack of clarity about the importance of the mentor's gender for women. The importance of females in academia being guided to manage work and family commitments has become particularly important in the context of casualization and work-intensification [1, 9]. Furthermore, a supportive, inclusive environment has been recognized to play an important part in addressing gender inequity [1, 65] and attrition [40, 46]. Flexible, voluntary and group mentoring models provide a solution that could enable female academics to find a mix of mentors able to address their multiple and evolving needs.

Collectively, the studies reviewed have reinforced the findings of others that a top-down approach to mentoring, whereby a mentee is assigned a senior mentor without regard for personal factors, may undermine outcomes [1, 18, 66]. The outcomes of this review emphasize the need for individual needs and preferences of the mentee to be considered and to adopt more flexible models of mentoring that account for the chemistry and complex interplay between mentors and mentees.

The structural barriers that block mentorship for female faculty reflect the higher education environment; overwhelming teaching loads, shortage of mentors and lack of time, institutional support and incentives [9, 56, 67]. Performance expectations in higher education have been increasingly geared to measured outputs [5, 8]. To 'survive', academics have needed to meet performance expectations and divest themselves of non-essential teaching and research demands [8]. Mentorship has not normally featured in workload allocations and has rarely been acknowledged by institutions [16, 66]. Though many of the organizational barriers identified in this review are not unique to women [3, 68], they are compounded by the lack of senior women available to provide mentorship. Promisingly, this review reveals a range of successful peer-supported, facilitated and co-mentoring models that could buffer the shortage of senior female mentors and the consequences of inadequate mentoring.

Consequences of inadequate mentoring

This review found the consequences of inadequate mentoring to be isolation, disempowerment, job dissatisfaction, stress and limited career development; factors conducive to burnout and attrition [3, 11, 69]. These findings are neither unique to women, nor exclusive to health faculties [1, 70], however they reinforce the need for female health academics, especially early career academics, to have access to quality mentorship [4, 29, 71]. While there have been few empirical studies that testify to the effectiveness of mentoring in health academia [4, 19], there is a broad body of evidence that supports the need for mentorship and this review provides further evidence supporting recommendations to mainstream mentoring in medicine [4] and nursing [69, 72].

Gaps in the literature

Despite the need to address gender inequities and career advancement, much of the literature on mentoring in the health sciences is generalised, the level of evidence weak and lacking in gender analysis. The gendered and work similarities between medical, nursing and other health academics suggest mentorship requires attention. Despite the prevalence of women in the health sciences, there were few studies in areas other than medicine that examined mentorship from a gendered perspective. This is an important oversight as female faculty often see themselves as 'outsiders' in the context of the academic workplace [40, 65], and regardless of clinical expertise, ill-prepared for the academic role [16, 28, 73].

Although Athanasiou, et al. [33] found few differences in results by gender they attributed the lack of significant differences in mentoring outcomes to the culture of the workplace and concerted efforts, policies and programs implemented to create a supportive culture conducive to promoting women's academic success. This reference to culture and the environment signifies another gap in the literature, the limited attention given to the workplace culture, environment, valuing of mentorship and changing priorities. While some studies and reviews of mentorship acknowledge the organizational, personal and relational factors that impact mentoring outcomes, they have largely neglected the academic environment. Arguably, the organizational structures and culture typifying the global knowledge economy may have undermined job satisfaction and potentially, an academic's ability and inclination to provide mentorship [2, 8, 56]. Similarly, although the restructuring of higher education has led to the integration of smaller institutions into large, multi-campus institutions, scant attention has been given to mentoring in the context of satellite or rural campuses. This is another important oversight because changes in staffing and role expectations of smaller satellite campuses compound the issues of access, availability and 'fit' of appropriate mentors.

Despite various models of mentoring being evaluated, no studies compared the gendered outcomes of different models of mentoring or the use of online mentoring. Most of the studies reviewed utilized cross-sectional, self-report designs with minimal use of validated instruments; factors which limited comparison across studies and precluded a meta-analysis. While six studies examined follow-up, outcomes ranging from 10 months to 6 years, only three studied the longer-term benefits of mentorship over four years or more. The dearth of longitudinal and high-level empirical studies that consider gender in the context of the contemporary higher education environment, continue to limit the evidence available about specific models of mentoring and their outcomes for women.

Limitations and strength of evidence

This review was limited to studies of mentoring of women in health faculty, published in English in peer-reviewed journals from 2000 to 2018. Though we undertook a comprehensive search of four databases deemed most likely to elicit mentoring studies in faculties of health, it is possible some relevant studies may have been missed. As this was an integrative review and we sought to include all valuable informational content, we included all studies that met our inclusion criteria, and did not undertake quality ratings. The preponderance of data from academic medicine flags a bias in understanding yet highlights the priority given to mentoring as an investment in recruiting and retaining medical academics. While the lack of conceptual clarity around the notion of mentoring limited our ability to synthesize data, it yielded rich insight into new models and varied possibilities.

Conclusion

This integrative review has synthesized what is known about the benefits, enablers and barriers to mentoring in the context of female academics in health faculties from 2000 to 2018, the effects of a lack of, or inadequate mentoring, and gaps in knowledge. In synthesising the evidence, this review provides a compelling case for institutions to invest in mentoring programs as a mechanism to support role transition, empower and retain new faculty and build female mentoring capacity. These results provide evidence that the provision of effective mentoring for female health academics is contingent on the organizational environment, specifically, workplace structures and relationships, and represents a long-term investment that can benefit academics and their mentors. Furthermore, mentorship assists higher education institutions to address faculty shortages, increase retention and productivity, advance female academics' careers and build female mentoring capacity. The urgent need to address these issues necessitate that new strategies be adopted to capture the enablers and circumvent the personal, relational and organizational impediments to mentoring. This review highlights the need for further research on academic mentorship from a gendered and environmental perspective, particularly large scale empirical studies measuring comparative outcomes of different models of mentoring, and longitudinal studies into the value of mentoring and its potential to advance women's academic careers.

Supporting information

S1 Table. Sample search strategy.

<https://doi.org/10.1371/journal.pone.0215319.s001>
(DOCX)

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