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Empowering the next generation: The role of mentorship in enhancing research competence

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Review Article

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Abstract

Mentorship has long been recognized as a crucial component of academic and professional development, particularly for mentees and researchers in research-intensive fields. It is noted that mentorship is learned rather than taught. This systematic review aims to synthesize existing literature on the impact of mentorship programs on the development of research skills, focusing on undergraduate and junior faculty researchers. A comprehensive search was conducted across various databases, resulting in the inclusion of 50 relevant articles published between 2006 and 2023. The findings highlight the multifaceted nature of mentorship, including mentoring behaviors, quality, and program structures. Key themes emerged, such as the importance of formal mentoring programs, the role of mentor networks, and the significance of certain attributes in effective mentoring relationships. Additionally, the review explores how mentor-mentee demographics, such as race and gender, influence mentoring outcomes. Overall, this review underscores the critical role of mentorship in fostering research skills and offers insights for enhancing mentorship practices in academia.

Keywords: Mentoring, mentorship, enhancing research competence

Introduction

Mentoring is widely recognized as a critical component of academic and professional development, particularly in the context of research skill acquisition among students. The literature underscores the importance of fostering a research-supportive culture within health organizations by actively involving health professionals (da Silva Souza et al., 2023). A robust institutional research culture is built on the continuous investigative efforts of research professionals, the

organization's capacity to generate research, and the presence of infrastructure that supports the creation of high-quality studies (Mazzella Ebstein et al., 2020).

Mentoring is a relationship between two individuals where the mentor, who has experience, helps the mentee develop his or her skills (da Silva Souza et al., 2023). This relationship involves both professional development and emotional support, aimed at enhancing skills and building self-confidence (Hafsteinsdóttir et al., 2020). In this context, mentors are experienced professionals in research and teaching who serve as advisors for health professionals engaged in supporting research development (Swenson-Britt & Reineck, 2009). Their role is to guide and oversee healthcare professionals involved in research projects. Additionally, due to their expertise, mentors can assist in training other professionals and provide support with the various challenges and decisions they encounter (da Silva Souza et al., 2023).

Effective mentoring relationships provide guidance, support, and opportunities for skill development, ultimately shaping the academic and career trajectories of mentees. Mentorship plays a pivotal role in nurturing the next generation of researchers and scholars across various disciplines. Research has shown that effective mentorship can significantly impact the development of research skills, academic success, and career advancement (Allen et al., 2006; Feldman et al., 2009). However, the landscape of mentorship is complex, influenced by various factors such as mentorship behaviors, program structures, and mentee demographics.

Mentoring plays a crucial role in developing research skills and advancing academic careers, particularly within health organizations. The need for a narrative review on this topic arises from the recognition that effective mentoring is essential for nurturing the next generation of researchers and fostering a supportive research culture. This review aims to consolidate existing knowledge on mentoring practices, highlighting their significance in enhancing professional development and academic success.

By conducting this review, the authors seek to illuminate the best practices and challenges associated with mentoring, providing valuable insights for future mentoring practices. The findings will help refine mentoring approaches, ensuring they are tailored to meet the evolving needs of researchers and academic institutions. Ultimately, this review underscores the importance of strategic mentoring in shaping successful research careers and advancing institutional research capacities.

Review and Discussion

Importance of Mentoring in Research

Mentoring is vital for interprofessional faculty in academic health centers, benefiting mentors, mentees, and institutions by enhancing career development, job satisfaction, and research success. It plays a key role in developing future research leaders, particularly in healthcare, but forming and maintaining strong mentoring relationships can be challenging.

Throughout the history of academic health centers, mentoring has been essential for the growth and development of interprofessional faculty, offering a valuable teaching and learning opportunity that enhances both professional and personal satisfaction for mentors and mentees alike (Hill et al., 2022). Mentoring programs in healthcare offer significant benefits to mentors, mentees, and the institutions involved, playing a crucial role in cultivating the next generation of research leaders (da Silva Souza et al., 2023). Recognized as a vital academic strategy, these programs are widely valued in the United States and other countries for their support of emerging research nurses (Hafsteinsdóttir et al., 2020).

Successful mentoring relationships for mentees lead to strategic career planning, career advancement or promotion, increased job satisfaction, enhanced motivation to remain in academic medicine, and personal growth (Goldner & Mayseless, 2009; Dimitriadis et al., 2012). These benefits are evident across various health professions, including medicine (Crites et al., 2023), nursing (Ortiz, 2021), pharmacy (Biehle et al., 2021), and others (Henry-Noel et al., 2019). Mentoring positively impacts individuals at different educational and professional stages, such as undergraduates (Evans et al., 2020), graduate students (Wettemann, 2021), and faculty members (Ortiz, 2021). Successful mentorship boosts engagement and job satisfaction, improves recruitment and retention, strengthens trust in the institution, increases publications and grant success, and supports career advancement (Ward et al., n.d.).

Despite the importance of mentoring, finding and sustaining a strong mentoring relationship can be difficult (da Silva Souza et al., 2023). Some mentoring connections form naturally through intentional networking or chance encounters at social events (Ward et al., n.d.). Attributes of effective mentoring relationships, such as trust, communication, and mutual respect, emerge as critical factors influencing mentoring outcomes (Barrett et al., 2017; Eby et al., 2013).

Mentor Qualities

An effective mentor is typically seen as accessible, approachable, experienced, supportive, reliable, enthusiastic, encouraging, and attentive (Tor et al., 2011; Lin et al., 2013). Mentors deliver both knowledge and direction, as well as encouragement and emotional backing (American Psychological Association [APA], 2012). Mentors can help with networking and understanding how to work within professional environments. It is also important for mentors to support the mentees' growth by guiding them through self-reflection and development, rather than just giving advice (Taherian & Shekarchian, 2008). Trust is key in mentoring, as it makes the mentee feel safe (Lin et al., 2013). Mentors who work together with mentees to set goals are often more successful (APA, 2012). If these qualities and communication skills are missing, the relationship might not move forward, but when present, they create a strong, honest, and positive mentoring experience.

Mentee Qualities

A good mentee is often proactive, dedicated, eager to learn, enthusiastic, open to new ideas, and communicative (Thomas-Maclean et al., 2010). Similarly, for a mentoring relationship to be effective, a mentee should be accessible and approachable, be open to feedback, and possess self-awareness and reflection skills. These traits help the mentee recognize areas for improvement and formulate relevant questions for the mentor (APA, 2012). Other positive traits of a mentee include diligence, dependability, curiosity, as well as open-mindedness, flexibility, and a willingness to accept feedback (Melanson, 2009).

Challenges in Mentoring

Mentoring is crucial for growth but can be challenging due to issues like mismatched expectations, personality conflicts, unclear boundaries, and confidentiality concerns. Health issues, unconscious biases, and limited institutional support can also impact mentoring relationships. Effective mentoring requires clear communication, defined goals, and mutual understanding to overcome these obstacles and ensure a supportive experience.

Transitioning from one phase of a mentoring relationship to the next can be challenging. If the mentor and mentee do not agree on when and how to make this change, it can cause stress and tough discussions. A mentee might want to move on before the mentor feels the mentee is ready, or a mentor might feel let down if the mentee stops seeking the mentor's support. To avoid these problems, it is important to set clear goals and expectations early on, allowing both sides to prepare and address any differences in their readiness (Taherian & Shekarchian, 2008).

A successful mentoring relationship also depends on a good personality match. If the mentor and mentee have very different personalities, it can make communication and connection difficult (Thomas-McLean et al., 2010; Chopra et al., 2016). It is best to evaluate personality compatibility before starting the relationship, but if mismatches are discovered later, they should be addressed honestly. Resolving issues respectfully or ending the relationship if needed can prevent further problems (Chopra et al., 2016).

Keeping professional boundaries is essential. This means clearly defining roles, setting times for meetings, and discussing what topics are appropriate. Poor boundaries can lead to issues like overdependence or conflicts of interest. Mentors and mentees should regularly review and discuss these boundaries to maintain a healthy relationship (APA, 2012).

Confidentiality is also key. Both mentors and mentees need to agree to keep each other's private information safe and avoid sharing sensitive details. Breaching confidentiality can harm the trust in the relationship (Chopra et al., 2016; Taherian & Shekarchian, 2008).

Health issues can affect mentoring. Both mentors and mentees should be aware of signs of burnout or stress and discuss how these might impact the relationship. Open communication and

planning can help manage these challenges and decide whether to continue or pause the relationship (Maslach & Leiter, 2016; Walton et al., 2020).

Bias can impact mentoring relationships as well. Unconscious biases related to race, gender, or other factors can affect interactions. Recognizing and addressing these biases is important for a fair and effective mentoring experience. Training and self-reflection can help reduce the impact of bias (Johnson et al., 2017).

Finally, lack of support from the institution or mismatched expectations can hinder mentoring relationships. Institutions should provide resources and support, and both parties should openly discuss any obstacles to ensure the relationship is successful (Leary et al., 2016; Choi et al., 2019).

Conclusion

Mentorship plays a crucial role in fostering the development of research skills among undergraduate and junior faculty researchers. By synthesizing empirical evidence and theoretical perspectives, the review highlights the importance of mentorship programs, mentor networks, and effective mentoring relationships in supporting the academic and professional growth of undergraduate and junior faculty researchers. Moving forward, efforts to enhance mentorship programs and promote inclusive mentoring practices can further support the success and advancement of the next generation of scholars and researchers in academia.

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