BEYOND TRADITION: INNOVATIVE MENTORSHIP MODELS FOR HIGHER EDUCATION

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As higher education institutions and the people who learn, work, and live within them, continue to face challenges, it is critical to foster safe, inclusive, and respectful cultures of learning and growth. Numerous mentorship models can be meaningfully integrated into campus culture to support professional and personal learning and development across various disciplines and career stages. In this paper, I introduce several mentorship models, present some of the challenges experienced across various career stages, and discuss a variety of evidence-based mentorship models that may be introduced and strengthened in different stages and personal contexts across higher education.

Mentoring relationships can be meaningful across the many roles and disciplines in higher education (Johnson, 2016). As a relational practice, mentorship can support the creation of a safe, inclusive, and respectful culture of learning and growth through self-exploration, reflection, curiosity, and identity formation (Lunsford & Baker, 2016). Across disciplines, research has demonstrated that those who engage in mentorship have higher levels of scholarly productivity, feel a greater degree of satisfaction in their careers, display increased confidence and competence in various academic skills, and have greater levels of career success and advancement (Nowell at al., 2016; Pethrick et al., 2020). Mentorship also supports the development of stronger collegial work and social relationships that can help students persist in their studies (Lorenzetti et al., 2020) and faculty to stay at their institution (Kanaskie, 2006). When mentorship is meaningfully integrated into campus culture, it can support the development of teaching, research, supervision and leadership practices, and ultimately improve student experiences (Grimes & White, 2015).

Mentoring relationships in higher education may include students, postdoctoral scholars, faculty, academic leaders, and others who seek to grow and develop personally and professionally. While both formal and informal mentoring relationships can be found throughout higher education, these relationships are complex and can take many forms. In this paper, I introduce several mentorship models, present some of the challenges experienced across various career stages, and discuss evidence-based mentorship models that may be introduced and strengthened in different stages and personal contexts across higher education.

Mentorship Models

Several mentorship models can be found across mentoring literature and authors often use interchangeable terms to describe similar mentorship types (Lasater et al., 2014; Nowell et al., 2017). Although mentorship models may lack consistent terms and definitions, the benefits of mentorship for mentors and mentees are abundant in the literature (Lorenzetti et al., 2019;

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Nowell et al., 2016; Oddone Paolucci et al., 2021; Pethrick et al., 2020). Below I provide an overview of dyad, peer, group, distance, and constellation models to guide a further exploration of how these models can be used across higher education contexts.

Dyad Mentorship Model

The most traditional mentorship model is a dyad model where a mentee is paired with a more experienced mentor, frequently with institutional support. These mentoring relationships can be formal or informal, pre-assigned by a department, or self-selected by the mentors or mentees. Successful dyad mentoring relationships require active participation, with equal responsibility shared between mentors and mentees (Nowell et al., 2017). Dyad mentorship can last for decades or have a pre-defined time limit. In higher education, dyad mentorship models are often used in graduate studies or postdoctoral fellowships where graduate students or postdoctoral scholars are paired with supervisors to speak about challenges and professional learning and development opportunities in a supported environment.

Peer Mentorship Model

Peer mentorship is a developmental and reciprocal relationship between peers at the same level of training, rank, or experience who regularly interact to share knowledge and provide emotional support (Oddone-Paolucci et al., 2021). This type of model can take many forms, including informal lunches, peer support groups, career counseling sessions, or purposeful learning opportunities run by an expert. A peer mentorship model can be used across disciplines and career stages to support individual growth and development while assisting peers at equal career stages in doing the same.

Group Mentorship Model

Group mentorship is where one or more mentors support a group of interdependent mentees who hold themselves individually and collectively accountable to a common purpose of learning and development (Nowell et al., 2017). Group mentoring provides opportunities for discussion, socialization, encouragement, and support and may involve several layers of mentors and mentees who vary by rank and experience. In this model, participants engage in conversation to share experiences, ideas, and tips. This model can also be used successfully when there are greater numbers of mentees than mentors. In higher education settings, group mentorship models are commonly used in research labs where undergraduate students, graduate students, research coordinators, and coinvestigators work and learn together.

Distance Mentorship Model

Distance mentoring is where the mentee and mentor are in different locations or faculties (Lasater et al., 2014). This form of mentorship can be particularly valuable for those located at satellite campuses and for those wishing to obtain guidance from mentors who may be at different institutions or faculties. The onset of COVID-19 forced social distancing and pushed most mentoring relationships into a distance online mentoring model (Gotian, 2020). The learning from the rapid pivot to distance mentorship may be something that is carried forward across mentoring practices in a post-COVID landscape.

Constellation Mentorship Model

Constellation mentoring is when one mentee has multiple mentors who take active interest and action to advance the mentee's development (Nowell et al., 2017). Constellation mentoring allows mentees to experience mentors with different styles of mentoring and leadership, providing rich and in-depth understandings of multiple facets of a career and providing mentees with greater opportunities to expand their networks (Higgins & Thomas, 2001). This model can also be viewed as a longitudinal landscape of career mentoring. In academia, one may have a mentor, a teaching mentor, a mentor for graduate supervision, and a mentor for long-term career goals. Each mentor can serve a different purpose for growth and development.

Various Career Stage Challenges and Potential Mentorship Models

Universities are key locations to promote the growth and development of the people who learn, work, and live within them, including undergraduate students, international students, graduate students, postdoctoral scholars, faculty, and academic leaders. While universities often develop cultures that demand high performance, excellence, and achievement, they also present increased challenges across various career stages.

Undergraduate Students

New undergraduate students need to rapidly adapt to academic and socio-cultural changes (Morosanu et al., 2010). They often experience challenges related to being away from home for the first time, exposure to professional practice, and limited support systems due to leaving family and friends (Porteous & Machin, 2018). The first year is viewed as critical in ensuring that students engaging within programmes of learning are successful in achievement (Trotter & Roberts, 2006). First-year undergraduate students might benefit from a *dyad mentorship* model with a more experienced student or a resident advisor. They may benefit from engaging in or leading a *peer mentorship* model, similar to one described by Hernandez et al. (2020), to get and give support to other students in a similar discipline or educational stage. Undergraduate students interested in building technical or research skills may benefit from a *group mentorship* model with students from across similar disciplines with varying levels of experience.

Graduate Students

Research suggests that graduate students across academic disciplines can experience significant stress, anxiety, and depression during their graduate programs (Wyatt & Oswalt, 2013). The individualized nature of graduate education can negatively impact graduate students, and working alone leads some graduate students to experience feelings of isolation, loneliness, and imposter syndrome, all of which can negatively impact their academic progress and wellbeing (Lorenzetti et al., 2019; Oddone-Paolucci et al., 2021). Graduate students may benefit from a *peer mentorship* model to develop a community of learning, collaboration, and shared purpose to share essential procedural and disciplinary knowledge, develop academic and research skills, and achieve key academic milestones (Lorenzetti at al., 2020; Oddone-Paolucci et al., 2021). *Dyad mentorship* models between graduate students and supervisors can be used to provide individualized support for graduate students to develop their research skills and support their thesis development. Introducing a *constellation mentorship* model, similar to one described

by Porat-Dahlerbruch et al. (2020), could allow graduate students to experience mentors with different research interests and skills and provide further opportunities to expand their networks.

International Students

International students have unique challenges such as differences in language and culture, lack of social support, homesickness, financial difficulties, discrimination, and academic failure due to the novelty of new educational systems (Khanal & Gaulee, 2019). The language and cultural barriers experienced by international students can create a lack of social support and overall heightened feelings of loneliness and isolation (Antonio & Dwumfuo-Ofori, 2015). This isolation and homesickness can negatively impact international students' wellbeing and side-track them from their studies (Cowley, 2018). Mentorship has been shown to be an effective approach to supporting international students with their transition by providing information about campus life, engaging in academic conversations, and initiating social support networks (Poyrazli & Grahame, 2007). *Peer mentorship* models can provide valuable social interactions that support the transitional process and cultural adjustment for international students (Ragavan, 2014). International students may also benefit from a *group mentorship* model where they can receive mentorship from other graduate students as well as provide mentorship to undergraduate students or new international students. It might also be helpful for international students to engage in a *distance mentorship* model with other graduate students from other institutions and countries to connect with graduate students who share similar backgrounds.

Postdoctoral Scholars

Postdoctoral fellowships are inherently independent, with minimal guidance and clarity, and this autonomy often leads to feelings of isolation (McAlpine et al., 2017). The ambiguity of postdoctoral positions, in concert with the insecurity of term appointments, is a common concern (Nowell et al., 2019). *Constellation mentorship* models can be used to support community development amongst postdoctoral scholars who value opportunities to engage in cross-disciplinary conversations with colleagues with similar interests (Nowell et al., 2020). *Dyad mentorship* models with experienced supervisors can support professional socialization through learning the norms, attitudes, behaviours, skills, roles and values of a profession (Nowell et al., 2021). Being a mentor to others is an important skill to develop, and as senior research team members, postdocs can provide *group mentorship* to graduate and undergraduate students in the lab to develop proficiency in listening, giving and receiving feedback, responding perceptively, and building interpersonal relationships (Nowell et al., 2021).

New Faculty

Starting an academic career can be complex and challenging. New faculty often enter academia because they have a passion for the work with an understanding that their contribution has the potential to reach far beyond the boundaries of the classroom setting (Manning & Neville, 2009). Yet, new faculty often experience feelings of loss, inadequacy, and lack of confidence in a new and sometimes alien culture and are too often left to figure things out on their own, making the transition to their new role even more difficult (Andrew et al., 2009; McArthur-Rouse, 2008). Accessing a mentor and having the opportunity to reflect can all normalize the anxieties inherent in moving from expert back to a novice (Manning & Neville, 2009). New instructors might benefit from a one on one *dyad mentorship* model with a more experienced instructor, maybe even from another faculty or from a *peer mentorship* model with

other new instructors both in their home faculty and across campus. A *group mentorship* model, such as that described by Waddell et al. (2016), may be helpful where more experienced faculty members provide mentorship to a group of new faculty. This may even overlap and expand on both the peer and dyad mentorship models.

Mid-Career Faculty

Mid-career is the lengthy period of time between earning tenure and preparing for retirement where faculty are expected to maintain high levels of performance while taking on new roles and duties related to service, leadership, and advising (Grant-Vallone & Ensher, 2017). Similar to mid-career employees in other professions, faculty at this stage also face challenges related to caring for ageing parents and children while trying to find and maintain a work-life balance (Baker-Fletcher et al., 2005). Mid-career faculty might benefit from a *group mentorship* model, but this time as a mentor. Research suggests that providing mentorship can be a great way to reinvigorate a career, explore new ideas, and create an environment where the mentees and mentor learn from each other (Bickel, 2016). Mid-career might also be the perfect time to seek out a *dyad mentorship* model with a senior faculty member whose career they admire and who has already come through this career stage. As well established academics, mid-career faculty have made national and international connections providing opportunities for *distance mentorship* models to help refresh research and teaching through exploring fresh insights. A Faculty Mentoring Leadership Program, described by Tsen et al. (2014), was develop specifically for mid-career faculty to help increase the quality of mentoring relationships, encourage leadership in mentoring, and cultivate a interdisciplinary community of faculty mentors.

Academic Leaders

Academic leaders must manage internal university issues as well as relationships with external stakeholders in the private and public sectors (Etzkowitz, 2016). With ongoing resource constraints, leaders are challenged with finding new ways of proving the value of universities to society and their entitlement to available resources (Gibb & Hannon, 2006). Other emergent challenges include integrating entrepreneurship in the university curriculum and preparing for the global market (Leitch, 2006). A *group mentorship* model may be helpful for academic leaders looking for mentorship and guidance from their leadership team who have the institutional history needed to make informed decisions. Being in a high-profile position has specific challenges, and academic leaders may benefit from a *constellation mentorship* model where a variety of mentors in various leadership roles can support the development of essential leadership skills. For university leaders who strive to become presidents and or provosts, they may benefit from a *dyad mentorship* model with others in the leadership roles they aspire to hold one day.

Conclusion

As higher education institutions and the people who learn, work, and live within them continue to face challenges, it is critical to foster safe, inclusive, and respectful cultures of learning and growth. Various mentorship models can be meaningfully integrated into campus culture to support professional and personal learning and development. I encourage everyone across the many roles and disciplines in higher education to explore the numerous opportunities

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to build strong formal and informal mentoring relationships using an open and inclusive approach.

References

Andrew, N., Ferguson, D., Wilkie, G., Corcoran, T., & Simpson, L. (2009). Developing professional identity in nursing academics: The role of communities of practice. *Nurse Education Today*, *29*(6), 607-611. https://doi.org/10.1016/j.nedt.2009.01.012

Antonio, S.M.L & Dwumfuo-Ofori, C. (2015). Understanding communication dynamics among international and domestic students: A case study of a global living-learning community. *The Journal of College and University Student Housing*, *42*(1), 128-143.

Baker-Fletcher, K., Carr, D., Menn, E., & Ramsay, N. J. (2005). Taking stock at mid-career: Challenges and opportunities for faculty. *Teaching Theology and Religion*, *8*(1), 3-10. https://doi.org/10.1111/j.1467-9647.2005.00217.x

Bickel, J. (2016). Not too late to reinvigorate: How midcareer faculty can continue growing. *Academic Medicine*, *91*(12), 1601-1605. https://doi.org/10.1097/acm.0000000000001310

Cowley, P., & Hyams–Ssekasi, D. (2018). Motivation, induction and challenge: Examining the initial phase of international students' educational sojourn. *Journal of International Students*, *8*(1), 109-130. https://doi.org/10.32674/jis.v8i1.154

Etzkowitz, H. (2016). The entrepreneurial university: vision and metrics. *Industry and Higher Education, 30*(2), 83-97. https://doi.org/10.5367/ihe.2016.0303

Gibb, A., & Hannon, P. (2006). Towards the entrepreneurial university. *International Journal of Entrepreneurship Education, 4*(1), 73-110.

Gotian, R. (2020). Mentoring during the COVID-19 pandemic. *Nature.* https://doi.org/10.1038/d41586-020-01028-x

Grant-Vallone, E.J., & Ensher, E.A. (2017). Re-crafting careers for mid-career faculty: A qualitative study. *Journal of Higher Education Theory and Practice, 17*(5), 10-24.

Grimes, C. L., & White, H. B. (2015). Passing the baton: Mentoring for adoption of active-learning pedagogies by research-active junior faculty. *Biochemistry and Molecular Biology Education*, *43*(5), 345-357. https://doi.org/10.1002/bmb.20885

Hernandez, P.R., Adams, A.S., Barnes, R.T. (2020). Inspiration, inoculation, and introductions are all critical to successful mentorship for undergraduate women pursuing geoscience careers. *Communication Earth Environ*ment, 1(7). https://doi.org/10.1038/s43247-020-0005-y

Higgins, M. C., & Thomas, D. A. (2001). Constellations and careers: Toward understanding the Leiteffects of multiple developmental relationships. *Journal of Organizational Behavior*, *22*(3), 223-247. https://doi.org/10.1002/job.66

Johnson, W. B. (2016). *On being a mentor: A guide for higher education faculty* (2nd ed.). Routledge.

Kanaskie, M. L. (2006). Mentoring—A staff retention tool. *Critical Care Nursing Quarterly*, *29*(3), 248-252. https://doi.org/10.1097/00002727-200607000-00010

Khanal, J., & Gaulee, U. (2019). Challenges of international students from pre-departure to post-study. *Journal of International Students*, *9*(2), 560-581. https://doi.org/10.32674/jis.v9i2.673

Lasater, K., Young, P. K., Mitchell, C. G., Delahoyde, T. M., Nick, J. M., & Siktberg, L. (2014). Connecting in distance mentoring: Communication practices that work. *Nurse Education Today*, *34*(4), 501-506. https://doi.org/10.1016/j.nedt.2013.07.009

Leitch, S. (2006). Prosperity for all in the global economy-world class skills, HMSO Norwich, UK.

Lorenzetti, D. L., Nowell, L., Jacobsen, M., Lorenzetti, L., Clancy, T., Freeman, G., & Oddone Paolucci, E. (2020). The role of peer mentors in promoting knowledge and skills development in graduate education. *Education Research International*, *2020*, 1-9. https://doi.org/10.1155/2020/8822289

Lorenzetti, D. L., Shipton, L., Nowell, L., Jacobsen, M., Lorenzetti, L., Clancy, T., & Paolucci, E. O. (2019). A systematic review of graduate student peer mentorship in academia. *Mentoring & Tutoring: Partnership in Learning*, *27*(5), 549-576. https://doi.org/10.1080/13611267.2019.1686694

Lunsford, L.G., & Baker, V. (2015). Great mentoring in graduate school: A quick start guide for protégés. *Occasional Paper Series No. 4. Council of Graduate Schools.* https://cgsnet.org/ckfinder/userfiles/files/CGS_OPS_Mentoring2016.pdf

Manning, L., & Neville, S. (2009). Work-role transition: from staff nurse to clinical nurse educator. *Nursing praxis in New Zealand*, *25*(2), 41–53.

McArthur-Rouse, F. J. (2008). From expert to novice: An exploration of the experiences of new academic staff to a department of adult nursing studies. *Nurse Education Today*, *28*(4), 401-408. https://doi.org/10.1016/j.nedt.2007.07.004

McAlpine, L., Wilson, N., Turner, G., Saunders, S., & Dunn, B. (2017). How might we better design support for postdocs? *International Journal for Academic Development*, *22*(4), 375-379. https://doi.org/10.1080/1360144x.2017.1375414

Morosanu, L., Handley, K., & O'Donovan, B. (2010). Seeking support: Researching first-year students' experiences of coping with academic life. *Higher Education Research & Development*, *29*(6), 665-678. https://doi.org/10.1080/07294360.2010.487200

Nowell, L., Norris, J. M., Mrklas, K., & White, D. E. (2016). Mixed methods systematic review exploring mentorship outcomes in nursing academia. *Journal of Advanced Nursing*, *73*(3), 527-544. https://doi.org/10.1111/jan.13152

Nowell, L., Norris, J. M., Mrklas, K., & White, D. E. (2017). A literature review of mentorship programs in academic nursing. *Journal of Professional Nursing*, *33*(5), 334-344. https://doi.org/10.1016/j.profnurs.2017.02.007

Nowell, L., Grant, K. A., & Mikita, K. (2019). Postdoctoral scholars in academic development and SoTL: Making our way through collaborative self-study. *International Journal for Academic Development*, *24*(4), 305-316. https://doi.org/10.1080/1360144x.2019.1623036

Nowell, L., Laventure, A., Räisänen, A., Strzalkowski, N., & Kenny, N. (2020). Postdoctoral scholars' perceptions of a university teaching certificate program. *Studies in Graduate and Postdoctoral Education*, *11*(3), 233-248. https://doi.org/10.1108/sgpe-12-2019-0088

Nowell, L., Dhingra, S., Kenny, N., Jacobsen, M., & Pexman, P. (2021). Professional learning and development framework for postdoctoral scholars. *Studies in Graduate and Postdoctoral Education*, *ahead-of-print* (ahead-of-print). https://doi.org/10.1108/sgpe-10-2020-0067

Oddone Paolucci, E., Jacobsen, M., Nowell, L., Freeman, G., Lorenzetti, L., Clancy, T., Paolucci, A., Pethrick, H., & Lorenzetti, D. L. (2021). An exploration of graduate student peer mentorship, social connectedness and well-being across four disciplines of

study. *Studies in Graduate and Postdoctoral Education*, *ahead-of-print* (ahead-of-print). https://doi.org/10.1108/sgpe-07-2020-0041

Pethrick, H., Nowell, L., Oddone Paolucci, E., Lorenzetti, L., Jacobsen, M., Clancy, T., & Lorenzetti, D. (2020). Peer mentoring in medical residency education: A systematic review. *Canadian Medical Education Journal*. https://doi.org/10.36834/cmej.68751

Porat-Dahlerbruch, J., Arnold, O., Lamoureaux, J., Flored, D., Hodgeson, N. (2020). Implementation and preliminary evaluation of a nursing PhD constellation mentorship model. *Nursing Outlook*, https://doi.org/10.1016/j.outlook.2021.05.013

Porteous, D. J., & Machin, A. (2018). The lived experience of first year undergraduate student nurses: A hermeneutic phenomenological study. *Nurse Education Today*, *60*, 56-61. https://doi.org/10.1016/j.nedt.2017.09.017

Poyrazli, S., and Grahame, K.M. (2007). Barriers to Adjustment: Needs of International Students within a Semi-Urban Campus Community. *Journal of Instructional Psychology*, *34*(1), 28–45.

Ragavan, S. K. (2014). Peer mentoring for international students in a UK law school: Lessons from a pilot case study. *Innovations in Education and Teaching International*, *51*(3), 292-302. https://doi.org/10.1080/14703297.2013.785254

Trotter, E., & Roberts, C. A. (2006). Enhancing the early student experience. *Higher Education Research & Development*, *25*(4), 371-386. https://doi.org/10.1080/07294360600947368

Tsen, L., Borus, J., Nadelson, C., Selly, E., Hass, A., Fuhlbrigge, A. (2014). The development, implementation, and assessment of a faculty mentoring leadership program. *Academic Medicine, 87*(12), 1757-1761. https://doi.org/10.1097?ACM.0b013e3182712cff

Waddell, J., Martin, J., Schwind, J., Lapu, J. (2016) A faculty-based mentorship circle: Positioning new faculty for success. *Canadian Journal of Higher Education, 46*(4), 60-75.

Wyatt, T., & Oswalt, S. B. (2013). Comparing mental health issues among undergraduate and graduate students. *American Journal of Health Education*, *44*(2), 96-107. https://doi.org/10.1080/19325037.2013.764248