

ORCA - Online Research @ Cardiff

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository:https://orca.cardiff.ac.uk/id/eprint/131918/

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Desselle, Shane P., Chang, Helen, Fleming, Gail, Habib, Arian, Canedo, Joanne and Mantzourani, Efi 2021. Design fundamentals of mentoring programs for pharmacy professionals (Part 1): Considerations for organizations. Research in Social and Administrative Pharmacy 17 (2), pp. 441-448.

10.1016/j.sapharm.2020.04.015

Publishers page: http://dx.doi.org/10.1016/j.sapharm.2020.04.015

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See http://orca.cf.ac.uk/policies.html for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Design fundamentals of mentoring programs for pharmacy professionals (Part 1): Considerations for organizations

Shane Desselle

Helen Chang, The Royal Pharmaceutical Society of Great Britain, London, UK Helen.Chang@rpharms.com

Gail Fleming, The Royal Pharmaceutical Society of Great Britain, London, UK gail.fleming@rpharms.com

Efi Mantzourani*, Cardiff School of Pharmacy and Pharmaceutical Sciences, Cardiff University, Wales, UK MantzouraniE1@cardiff.ac.uk

* Corresponding author

ABSTRACT

Mentoring programs have been offered by organizations within and outside of healthcare for years. This commentary examines the literature under the prism of design fundamentals for these programs, drawing particular considerations for schemes aimed at pharmacy professionals. The central argument presented is that mentoring can be used as a vehicle to support pharmacists to learn from others and each other, to reinforce and own their professional identity so that the uniqueness of the pharmacy profession is established within a global health landscape of constant change. In this Part 1 of a series of papers, a wealth of literature, theories, and evidence are presented aiming to inform the general structure and logistical considerations for both in-person and distance mentoring programs.

Keywords: mentoring, pharmacy, pharmacist, professional development, professional identity

INTRODUCTION

This paper aims to provide a thorough, even if not exhaustive set of considerations when designing and implementing a mentoring program within a particular healthcare organization or for healthcare professionals throughout an organization that might be more geographically disparate. It seeks to leverage seminal work from mentoring studies undertaken in the 1980s and 1990s up to more recent research including several systematic and scoping reviews primarily conducted in academic settings, but also in business and professional realms. As such, it does not aim to reinvent the wheel, but rather serve as a resource for actuating a program.

Mentoring has become widely recognized as critical to the development of future health practitioners, colleagues, and all persons, in general. It has been argued that mentoring is one of the core components of the duties of medical school faculty. Similarly, nursing literature has described the greater likelihood of success among future nurses when being formally mentored. The pharmacy literature has less to

show in systematic reviews and analyses, but there is indeed a growing evidence of the need for mentoring to help ensure progression and transformation into effective health care practitioners.³ Mentorship has proven time and again to promote effectiveness for a multitude of job-related outcomes for all parties involved.⁴ Not only are task effectiveness and career mobility enhanced, but intrinsic rewards for being mentored (e.g., feelings of belonging, job satisfaction) are also improved.⁵

It is important early on that a definition of mentoring be proffered, not just for the sake of doing so, nor for the sake of arguing that one is "best". Rather, doing so provides psychological, epistemological, and pedagogical context around which we might frame the discussion and recommendations made in this paper. Anderson and Shannon define mentoring as "a nurturing process in which a more skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purpose of promoting the latter's professional and personal development. Mentoring functions are carried out within the context of an ongoing, caring, relationship between the mentor and the mentee or "protégé". The points of emphasis include the multifactorial nature of mentoring as well as the caring relationship that exists in a more holistic type of mentoring as opposed to an alternative view in which mentoring is seen merely as an exercise to improve the skills of a neophyte. Similarly, Carger describes mentoring as "a human process in which one sees, reflected in a mentor, aspects of one's self, facets not clearly in focus, potentials not fully realized." In seminal work on human development by Levinson, it is argued that "poor mentoring in early adulthood is the equivalent of poor parenting in childhood".

Mentoring, then, is seen to occur at all stages of life, including formative school years on through adulthood. Some degree or level of mentoring is apt to take place during the academic careers of students, even if informal such as the inherent interactions with other students, instructors, participation in clubs and organizations, and through the process of didactic and experiential training, in and of itself. However, formal, or even informal mentoring might not be so prevalent among those already in active practice, in spite of a growingly recognized need for this to occur. Indeed, the very ones who are charged with mentoring students quite often are in need of mentoring, themselves, both in regard to their own development as well as on how to mentor others (peers and students, alike). Development and mentorship are directly stated and inferred in several of the standards for accreditation for pharmacy programs in the U.S.¹⁰ Several professional organizations in the U.S. have created mentoring programs for junior practitioners. 11,12 A task force of the American Association of Colleges of Pharmacy identified mentorship as one of four critical issues to address in advancing pharmacy's paradigm.¹³ In the UK, mentoring is not explicitly described by the regulatory body, the General Pharmaceutical Council, in the standards for pharmacy professionals' registration, even though the concept is implicit in areas such as supervising pre-registration students. 14 Instead, the professional body for pharmacy professionals, the Royal Pharmaceutical Society, introduced a mentoring program for its members in 2010, and re-launched the program in 2019 delivered via a new online platform, with improved matching criteria that allows more mentee control over selecting an appropriate mentor. 15

Desselle attests to the need for a scholarly approach when it comes to mentoring and development of mentoring programs. ¹⁶ Specifically, it is argued that when researchers, clinicians, and other professionals seek ideas, clarity, and solutions to problems, they embrace the scientific method and leverage findings

from the extant literature in order to do so. However, it becomes tempting when dealing with a phenomenon as ostensibly familial as is mentoring and mentorship programs to resort quickly to "common sense" and appeals to authority, rather than to wade through the troves of evidence in devising effective mentoring programs and establishing mentorship cultures. As such, this paper aims to evaluate a preponderance of literature on the mentoring concept to assist in establishing programs and delineating best practices for mentorship in pharmacy professionals through the lens of the organization. A range of key mentoring program components have been identified from the literature and synthesized into themes presenting considerations (Figure 1). As having congruence with literature in other health professions' programs and with mentoring programs in business corporations, each of these will be discussed briefly. A further paper will consider issues impacting on the relationship between mentors and mentees.

Consideration 1: Mentoring models and relationships

Nature of mentoring relationships

Mentorship programs have become relatively commonplace in academia, even though their execution might not be perfect and may lack the commitment and resources for optimization. Academic medicine is a useful place to examine literature on mentoring, as there are is relatively wide swath of literature, and the mentoring programs therein are aimed at developing future prescribers who are for the most part in the early adulthood stage, having already earned baccalaureate degrees but not yet having begun their permanent career. In a systematic review on mentoring in academic medicine, Kashiwagi et al identified seven mentoring models also common in mentoring programs outside of academic medicine: dyad, peer, facilitated peer, speed, functional, group, and distance. Functional and speed mentoring are variations of the dyad model where a functional mentor provides advice on specific project and speed monitoring represents a very brief interaction aimed to spur proliferation of dyadic exchanges. Similarly, a literature review of mentorship program in academic nursing found mentoring models to include, dyad, peer, group, online, distance, learning partnerships, and constellation models, with the latter consisting of a mentee having multiple mentors serving unique purposes. ¹⁸

Mentors within vs outside of an organization

A mentoring program might consider the use of "outside" mentors to include persons outside the pharmacy program and even outside the organization.¹⁹ These "key resources" help to balance what will likely be a shorter supply of mentors than mentees within an organization, solicit assistance from the willing, having key experts in a given niche that the organization may not possess, and bring in more diverse perspectives from persons who might develop in mentees an entirely different set of skills and behaviors. Mentoring relationships with persons from two or more disparate fields could spur growth from entirely alternative perspectives, experiences and training.²⁰

Selectivity in matching dyads

Pairing of mentors and mentees has been described as an important component of any mentoring program by Kashiwagi et al in their systematic review.¹⁷ A different systematic review identified selectivity in matching dyads as an important factor.¹⁷ Finding appropriate fit is paramount for success of mentoring programs.²¹ Bryant et al report a matching process that has become increasingly prevalent and deemed to be most appropriate; that is, the consideration of needed expertise and social connections to the discipline/profession, mutually desired goals, but also expectations for levels of engagement and time commitment to the process.²² A coordinator (see later) can take a lead in the process of matching, but should probably not take it upon themselves; rather, the matching should be accomplished by a committee of persons having some responsibility for oversight or at least a vested interest in the program. Increasingly, prospective mentors and mentees complete inventories describing their preferences, type/level of engagement, career needs, life needs, and extent to which they might seek a dyadic partner interested in social camaraderie as well as projects to work on together (e.g., a new teaching inservice, quality assurance initiative, a publishable project).

Consideration 2: Delivery of schemes

At the very crux of a mentoring program's design is whether it be mandated for voluntary and whether it be formal/systematic or informal. There have been arguments against more formally structured mentoring programs, suggesting that such a program might stifle informal mentoring. However, Tam argues that formal mentoring programs inherently help an organization prepare for change management.²³ This is through the shared experiences and the opportunities availed through the mentoring program to discuss opportunities and pitfalls while clearing the air of misconceptions about impending change and even existing sacred cows. Moreover, properly trained mentors and careful oversight of the program will ameliorate egoism and encourage the mentor to provide counsel to mentees that they continue informal mentorship and further introduce them to an even greater network of informal mentors. Initial evidence suggests that more formal mentoring programs are effective in promoting the agendas and competence of both mentor and mentee, and likewise produce more effective organizational outcomes.²⁴ Additionally, there is evidence to suggest that a properly functioning formal mentoring program with mentors lacking self-centeredness actually spur *additional* informal mentoring by encouraging mentees to ask questions to anyone that might be of help and by broadening their networks of colleagues.²⁵

The literature is scarce as it pertains to voluntary or compulsory participation of mentoring programs delivered within an organization for employees. In the spirit of shared development outcomes, equity, and shared experiences, many mentoring programs appear to require participation for new employees as mentees which might be waived should the new employee already have considerable experience in the field. Even then, mentoring at least for a temporary period beyond orientation might be useful for someone who might be accustomed to an entirely different organizational culture and manner of getting things done. ²⁶ However, professional organizations administering mentoring programs for its constituents or practitioners, outside of the organization, would be unlikely to mandate participation by new, or junior members. Mandating participation by mentors is likely unwise, given that an unwilling

participant is unlikely to accept training or volunteer the appropriate amount of time. Mandated participation might even result in efforts of sabotage and create the establishment of the most inappropriate role modeling behaviors for mentees.

Administrative support

Nowell et al identified administrative support as another key component of successful mentoring programs. Having a program coordinator works with all parties involved but primarily mentors to direct each step of the mentoring process. The coordinator helps to facilitate communication, evince that the organization (or association or society) stands behind the program, and helps to collect evidence needed for outcomes evaluation of the mentoring program. Nick et al acknowledges that without authentic support from administration, mentoring programs are likely to struggle. Administrative support, in addition to provided necessary assistance in communication, organization, arrangement for food and facilities where relevant, is also a formal acknowledgement by management of their support for the program.

Technology

Given the time and resources incurred with mentoring and other development activities, technology is increasingly called upon, such as with the use of e-mentoring.²⁷ Modern technology has afforded many the opportunity for new ways to incorporate mentoring in the absence of face-to-face frequent meetings given time, financial, and/or geographical constraints. Brock et al initiated a development initiative for academic pharmacists using social media. To evaluate the program, researchers extracted data from the curriculum vitae of participants to quantify scholarly outputs.²⁸ While unable to assess these outputs against any sort of cohort, they found that participants had produced 71 scholarly works together, including peer-reviewed articles, book chapters, and international presentations, over the course of 10 years among only 10 participants. Organizations and associations might consider use of conferencing, social media, and other technologies in combination with at least some occasional opportunity for mentoring programs to meet face-to-face. It is worth noting that distance mentoring might involve not only geographical separation, but also involvement of mentors from disparate fields, as discussed above.

Communication

Jackevisius et al described lessons learned for a program implemented for an academic pharmacy organization.²⁹ Among the more critical areas is for initial communication. This might seem to some readers as common sense, perhaps almost banal. However, its importance cannot be underscored enough. Communication needs to occur between upper management providing the imprimatur to proceed with the program, though middle management that might be providing oversight over the program coordinator, the mentors and mentee participants, supervisors of the mentors and mentees, and the aforementioned administrative support staff for the endeavor to ensure everyone is one the same page.

While mentors and mentees can and should be afforded autonomy as to what best works for them, there should be at the very minimum encourage for a certain level and frequency of communication; erstwhile, the program is not really serving much of a purpose. Dyads can establish means of communication, but suggestions include regular lunch meetings, telephone calls, programming/workshops put on within the context of the program, working together on one or more endeavors, video conferencing, and joint attendance at professional events, all of which has been shown to increase not only the outcomes of but also satisfaction with the program. The closer relationships imbued by such communication reduces barriers to asking challenging questions, engenders camaraderie within and across mentor dyads and even strengthens bonds by all parties with the organization.

Cost

Along similar lines as it pertains to communication and to the previously discussed topic of having "outsiders" is agreement upon resources necessary to execute the program effectively. In fact, the appointment of a program coordinator and administrative support will incur at least some level of cost. Even use of distance mentoring via Internet technology must ensure that participants do not incur any costs related to video conferencing or telecommunications. In fact, for a multisite mentoring program, building infrastructure is necessary to support ongoing efforts through "generations" of mentors and mentees residing at different institutions and perhaps even different settings or niches of practice.³² Additional costs include remuneration for workshop/development speakers, transportation, and perhaps salary or offset for certain participants. It might be considered depending upon the nature of the program, the persons involved, the geographic dispersion, and other factors that persons involved not only in coordination, but perhaps other very active mentors receive "credit" or offset for their work. While mentors should not be induced with high levels of payment else risk jeopardizing the entire nature of the program, senior practitioners, faculty, and other key personnel might be considered to have some of their workload delegated to others in the organization or association. It is likely that these persons are those whose proverbial plates are already full, and some of their responsibilities might need to be offloaded.

Mentoring culture

This leads to yet another point about instilling a mentoring culture. McRae and Zimmerman discuss the importance of such a culture.³³ The culture instills the value of mentoring and effectively communicates it as a priority of membership and employees. It signals the interest of an organization in its valuation of human capital for their development as extraordinary employees and citizens.³⁴ Having monetary and capital investments certainly sends the right message. Additionally, organizations might consider offsetting some work responsibilities for key persons as mentioned above, rely on experts to deliver training and routine workshops, and demonstrate best practices for mentoring by placing examples of effective mentoring and mentoring outcomes onto communication such as internal newsletters and even organization websites. Organizations might also consider implementing awards and other recognition for effective mentoring just as they might for other categories of desired behaviors, for example, clinical performance, teaching, research, service, and other.³⁵ This token of appreciation helps

connote the importance of mentoring and create a level of enthusiasm for it. ³⁶ Developing a culture of mentorship, as is the case with developing a culture of most anything, requires a strong commitment by leaders at all levels as well as grassroots efforts by participants to seek out and leverage opportunities. ³⁷ The emphasis on leadership "at all levels" implies involvement not only to top executives but front-line supervisors and heads of departments within a large organization, including in such organizations or even entire settings and regions/nations that might be resource constrained. In such environments, buyin and effective execution from such supervisors is that much more critical. ³⁸ Evidence suggests that many of the most effective mentoring program participants are those who serve concomitantly as a mentor to someone and a mentee to someone else, appreciative of and absorbing information from both aspects to leverage and increase the effectiveness of the other. ³⁹ Additionally, it is important to remember that even the most junior practitioners will likely be somewhat involved in mentorship, themselves, as many pharmacy organizations have student interns or registrants working under their tutelage. ⁴⁰

Consideration 3: Goals

Program and/or individual

Another consideration is the program's perspective. The program should have overall goals, while the individuals involved should tailor their own around the overarching program goals.²² The coordinator and other program administrators might consider a more bottoms-up approach to developing goals to include the input of future participants, even while guiding them to be mindful of organizational structure, context, and mission.⁴¹ Like goal-setting in the more general sense, successful goal-setting usually occurs when there are contributions from the stakeholders, when there is accountability, and when the goals are challenging yet achievable. The findings of Esbenshade et al provide evidence that mentor-mentee pairs who established goals together at the outset reported higher success ratings of the mentoring relationships and its outcomes.⁴² Cangelosi described three expectations be addressed early in the mentoring program: (a) reciprocity, (b), time commitments, and (c) planning growth activities.⁴³ An example set of goals established for an existing academic pharmacy unit, as summarized by one of the authors (SD), is provided in Box 1.

While mentors and mentor-dyads will invariably take some form agreed upon by all parties, there is some question about whether the program goal and the mentor training should focus on developing expertise in a specific career area or take on a more holistic approach. In still another systematic review of mentoring programs in academic medicine, Sambunjank et al evaluated qualitative research on the meaning and characteristics of mentoring. ⁴⁴ The literature suggested to them that there exist programs aimed at academic/professional growth and others aimed at more personal growth to encompass the former. While difficult to measure, it would appear as though dysfunctional mentoring is more likely to occur in those programs aimed more specifically at academic growth. These stems from personal and relational factors in which competitiveness and envy might more frequently appear in more task-specific program orientation, as is the result when caring relationships are not expressly manifest.

Benefit for employers

Litano and Major argue that a whole-life approach not only helps the mentee grow outside of one's career, but is likewise more instructive for development of job effectiveness, as whole life mentoring will take into account such things as effective coping, using appropriate communication methods and channels, collegiality, time management, emotional intelligence, and other skills and behaviors that assist the contemporary knowledge worker at their jobs beyond its immediate task requirements. Hollywood et al add that more holistic approaches in mentoring will assist the organization with adapting to change. Hobson argues further that holistic mentoring which focuses on the well-being of mentors and mentees will result in a more equitable work climate and employees that are both more satisfied and engaged.

Consideration 4: Development of mentors and mentees

Preparing for mentoring

The need for training of the mentors themselves is now more widely understood. In a scoping review of mentor training programs, Sheri et al point out that clinicians are poorly trained in the art of mentoring. As A previous study by Feldman et al reported that fewer than 15% of mentors received formal training, and that mentors often failed to maximize the opportunities before them. As and that such training actually boosts that mentoring effectiveness is enhanced by mentor training and that such training actually boosts the satisfaction of the mentor. The scoping review by Sheri revealed several insightful themes: structure of mentor training that is longitudinal in nature, incorporating role plays, workshops, and small groups discussion; training content that promotes well-roundedness, teaching, clinical skills, research, networking, and caring.

Slimmer described orientation as a key component of the program, in which mentors and mentees engage one another to review the program's goals and their own goals as a dyad or community/constellation and Nowell et al identified orientation as a key mentoring program component in their literature review. The orientation program provides encouragement to all parties yet reminds them of their obligations, along with privileges, that help ensure accountability for and sincerity in participation. Loyal et al also argues that having an orientation program for the mentors and mentees is especially important, as this promotes a foundation of a strong mentoring culture; In fact, moving more widely used and available for adaptation are the use of tool kits to assist mentors and mentees. Orientation presents a great opportunity for mentors and mentees to clarify areas of concern or ambiguity, hear from various persons in the organization who might provide additional support, and reflect on how the mentoring program comports with the mission and goals of the organization.

On-going support

The evidence for "joint programming" for mentors and mentees is compelling.⁵⁵ Nowell et al found that developmental workshops can address or reinforce optimal behaviors by all parties in the mentoring

program and also can inject specific content, in the case of pharmacists, for example, newer therapies on the horizon, updates on legal issues, ethical dilemmas being confronted, quality assurance and medication safety initiatives, pharmacy and therapeutics committee activities, interprofessional opportunities, forging collaborative working agreements with prescribers, and other. A needs assessment can be used to identify other topics as well as preferred modes of delivery and/or learning strategies. Having workshops (even online) provides yet another opportunity for mentors and mentees to come together.

Facilitating socialization and networking opportunities

The inclusion of socialization aspects to the program might be among the more widely debated issues in mentoring. After all, no one can force anyone to be friends, and no one is well served by contrived circumstances. Yet, Nowell et al highlighted it as a key mentoring component and indeed social camaraderie has been demonstrated to improve professional camaraderie and the bonds that form through socialization can also help to facilitate greater networking, diversification of one's power base, and engender a more long-lasting and fruitful relationship even after the formal mentor-mentee relationship has come to a close and even upon the mentor or mentee leaving the organization for alternative employment. 18,57

Consideration 5: Evaluation

Mentee reflective journaling

White et al cited advantages to include reflective journaling opportunities for mentees.⁵⁸ It can be well argued that true learning does not take place in the absence of reflection. Indeed, Mantzourani et al summarized the literature arguing that engaging in reflective practice benefits healthcare professionals,⁵⁹ via an iterative process of stimulating thought processes, learning from strengths and weakness, and ultimately improved practice and optimal patient care.⁶⁰⁻⁶² White found that in addition to personal growth, the process of journaling actuating fostered a closer relationship by the mentee with the mentor. Of course, while not yet described in the literature, there is nothing to preclude reflective journaling by mentors, as well. After all, an effective program will see to their continued development, not just the development of mentees.

Program evaluation

The mentoring program itself must be assessed, which is no different for any other serious endeavor of an organization or association. ⁶³ Of course, the parameters used to measure effectiveness are always debatable and thus require careful thought. Unfortunately, even among the organizations that assess and monitor their programs, their doing so is based primarily upon satisfaction questionnaires of mentors and mentees. This is indeed an important outcome; however, survey instrumentation should also assess level of engagement and opportunities for improvement as well as an anonymous report of requests to change partners in a dyad or even a constellation structured program. Ideally, there should

be an evaluation of the effectiveness of the program based upon its goals. Harker et al employed a mixed methods strategy to evaluate various facets of a mentoring program that included the use of interviews and focus groups of participants. ⁶⁴ There are studies, even randomized control trials for the evidence of mentoring programs for students, at-risk youths and other populations, 65 but reports of outcomes assessment for professionals are more scarce. Assessment of the program must be considered within the context of varying needs for mentors and mentees over time, considering different stages of one's career and the varied types of coaching and support needed, including preparation and career planning for those who might become future leaders in an organization and/or profession.⁶⁶ St. Jean and Tremblay identified the positive effects of a mentoring program longitudinally by observing gains in participants' self-efficacy in a corporate environment.⁶⁷ Welsh and Dixon measured the acquisition of greater competence through a mentoring program; however, this was measured through respondent self-report.⁶⁸ Optimally, a mentoring program would include assessment of actual performance indicators, even while challenging to do so, especially given the possible confounders of participants' job effectiveness or lack, thereof. An example set of outcomes assessments for a pharmacy mentoring program, as summarized by one of the authors (SD), is provided in Box 2. Examples of outcomes for pharmacists in a mentoring program would be job/career mobility (successful promotions), professional association leadership, development of new and innovative services, participation in national or regional public health initiatives, patient ratings of care received from the pharmacist, and other as deemed appropriate by job and title.

Sheri et al in their systematic review argued for need to evaluate not only the mentor-mentee program, but also the mentor training program itself for the resultant outcomes under the auspices of a program.⁴⁸

Special Considerations for Pharmacy Professionals

This paper has discussed literature on mentoring from various arenas, much of it already gathered from health professions literature and from academia, where much of the mentoring programs and reports of those programs exist. Much of the literature on mentoring is broadly applicable; however, there are a few additional pearls and considerations for pharmacy professionals worth mentioning. Similarly to many healthcare professions, and maybe even more so, pharmacists operate within a dual culture of corporate bureaucracy versus professional bureaucracy, regardless of practice setting, where role conflict inevitably arises due to the varied demands of patients, caregivers, peers, other health professionals, corporate ownership, and any insurance sponsors or third parties.⁶⁹ To that extent, it is critical that any mentoring program in pharmacy be designed and implemented with a goal of supporting, even enhancing professional identity.⁷⁰ Professional identity has been defined in many ways, but in summary can be thought of as the oneness that individuals have with a profession and the degree to which individuals define themselves as profession members.

A lack of professional identity is likely to result individually in diminished altruism and career burnout, while on the broader scale, diminished opportunities and paradigmatic development across the

profession.⁷¹ For many years it has been argued that pharmacists have weak or incomplete professional self-identity formation, with studies suggesting this may be indicative of role ambiguity, lack of clear direction, and limited self-reflection and ownership of uniqueness of pharmacists. If one considers the radical change in pharmacy practice over the last decade in response to increasing pressures on healthcare systems internationally, ⁷²⁻⁷⁴ this perhaps may not come as a surprise. More than ever, pharmacists need to take responsibility for this expansion of roles and achieve their full scopes of practice, for improved patient outcomes.

A study of a longitudinal mentoring program across several types of clinicians aimed to promote professional identity, which fostered improvements in care; and while each professional's identity was accentuated, this actually resulted in more positive attitudes toward interdisciplinary collaboration.⁷⁴ When designed appropriately mentoring programs help participants envisage their professional identity and also assist with socialization into the profession, imbuing a greater sense of career commitment and altruism.⁷⁵ Evidence suggests that mentoring specifically to promote identity with a profession and with an organization is associated with increased satisfaction and commitment by the mentee.⁷⁶ The design of mentoring programs might correspond with a career laddering mechanism, which is critical given that often times professionals like pharmacists and other clinicians enter the profession with a high salary but feel that there is little upward career mobility after initial job entry.⁷⁷

Any opportunity for pharmacists to gain mentorship from someone outside their practice setting, even another health professional, might be seized upon, even while the importance of having mentorship from someone in a similar job is likewise important. Evidence suggests that the perspectives of peers from different departments and/or settings help to develop a broader sense of professionalism and might also open doors to new career ideas not previously entertained.⁷⁸

It also is important to develop leadership abilities among mentorship program participants, especially in science, technology, engineering and mathematics (STEM) and in professional fields, given the need for political agitation to advance scope of practice and societal position of these individuals.⁷⁹ Mentoring on professional advocacy such as with pharmacy can contribute to future gains in autonomy and provide benefits well above and beyond the growth of the mentor and mentee.⁸⁰ It has been suggested, then, that mentoring for professionals focus on transformational, as opposed to merely transactional type of leadership approaches.⁸¹ At the same time, momentous occurrences provide an opportunity for all mentoring participants to learn. An interesting study of nurses being mentored in clinical roles, with results that can be relatable to the pharmacy profession, found that strides in development occurred when the mentoring is multidimensional and incorporates development from events, rather than mentoring to be centered only around people.⁸²

Given that many pharmacists carry a significant societal burden and work many hours, mentoring them on work-life balance yet remaining professionally opportunistic is critically important.⁸³ An additional consideration is that practitioners be mentored to assist with research endeavors, even if not designing the research, themselves. There is evidence that participation in mentoring programs can encourage clinicians to join practice-based research networks (PBRNs) or similar such, which usually their involvement in demonstration projects evincing the effectiveness of practice scope expansion.⁸⁴

Furthermore, enhancing research prowess in such a way also inherently improves participants' communication skills and their prowess in evaluating peer-reviewed literature.⁸⁵

There are relatively few reports in the literature of pharmacy professional associations having begun a regional or national mentoring program, even while a review of various websites would suggest they exist. More organizations in the United States provide such programs. The American Society of Health Systems Pharmacists (ASHP) has convened a mentoring program for members specifically in the area of antimicrobial stewardship.86 It involves a seven-step process with self-assessment, telephone calls, continuing education, a one-day onsite visit, action plan, and outcome data collection and analysis. The American College of Clinical Pharmacy (ACCP) allows members to search for potential members through its database with the understanding that the mentee commit to: upholding the mentor-mentee relationship through regular communication of at least 1 hour per month; and being prepared for goalsetting upon initial contact.⁸⁷ The California Society of Health Systems Pharmacists allows each of its regional chapters to form its own mentorship program for junior pharmacists; however, seemingly only some chapters have taken advantage of the opportunity.⁸⁸ The American Association of Colleges of Pharmacy (AACP) performs mentoring through a Fellows program that incorporates occasional onsite gatherings of participants with group a group mentor model that transpires over the course of 12 months.⁸⁹ A glance at health professions websites reveals others employing some form of or at least endorsing mentorship, often employing a mix of various models and use of distance technology to the extent possible.

The Royal Pharmaceutical Society of Great Britain (RPS), the professional body for pharmacy professionals in the UK, has recently re-launched a mentoring program whereby pharmacy students and pharmacists who would like to act as mentors and/or mentees complete a registration via an online system, add details on career stage and areas they would like to mentor/be mentored in, and get paired by the system that uses algorithms to apply selectivity. Training resources are available online as directed learning, with no formal requirement to complete. Mentor and mentees are then assumed responsible for agreeing to goals and timelines as a dyad. The first phase of the program launched in October 2019, with a formal evaluation that will inform further development underway. The program is free for all registered members of the RPS.

A similar scheme is available via the Pharmaceutical Society of Australia for registered members, where mentors volunteer and mentees are required to pay a fee. Pairings are completed manually and are based on mentee requirements and mentor experience. There is mandatory training upon registration to the scheme, supplemented by additional resources to be used as necessary by the mentees and mentors.

CONCLUSION

This is the first in a series of papers providing a thorough examination of the literature to establish lessons learned from designing mentoring programs, with the goal of suggesting a reflective framework for enabling pharmacy organizations and professional bodies to enhance the mentoring culture in pharmacy professionals. There are a number of factors to consider when designing a mentoring program

and at the same time there is limited information on an optimal model. It lies within organizations looking to develop such programs to reflect on what the outcomes of the individual program would be and consider how each factor can be contextualized to support them to achieve their overarching aim. With this in mind, and within the context of rapidly evolving new roles and the associated risk on navigating through this new era for pharmacy with unscathed professional identity, this paper argues that mentorship can provide the platform for a much needed professional network, to take the profession forward in a structured yet flexible and individually tailored way.

References:

- 1. Sambunjak D, Straus SE, Marušić A. Mentoring in academic medicine a systematic review. *JAMA* 2006;296(9):1103-1115.
- 2. Huybrecht S, Loeckx W, Quaeyhaegens Y, De Tobel D, Mistiaen W. Mentoring in nursing education: Perceived characteristics of mentors and the consequences of mentorship. *Nurse Educ Today* 2011;31(3):274-278.
- 3. Ferrante AB, Lambert J, Leggas M, Black EP. Predicting Student Success Using In-Program Monitoring. *Am J Pharm Educ* 2017;81(6):111.
- 4. Sood A, Qualls C, Tigges B, Wilson B, Helitzer D. Effectiveness of a faculty mentor development program for scholarship at an academic health center. *J Contin Educ Health Prof* 2020;40(1), 58-65.
- 5. Mcdonald S, Lambert J. The long arm of mentoring: A counterfactual analysis of natural youth mentoring and employment outcomes in early careers. *Am J Community Psychol* 2014;54(3-4):262-273.
- 6. Anderson E, Shannon A. Toward a conceptualization of mentoring. *In: Kerry T, Mayes A, ed. Issues in Mentoring*. New York: Routledge; 1995:25-34.
- 7. Carger CL. The two bills: Reflecting on the gift of mentorship. *Peabody J Educ* 2003;71:22-29.
- 8. Levinson DJ. *The Seasons of a Man's Life: With Charlotte N. Darrow a. o.* New York: Knopf; 1978.
- 9. Buddeberg-Fischer B, Herta KD. Formal mentoring programmes for medical students and doctors—a review of the Medline literature. *Med Teach* 2006;28(3):248-257.
- Accreditation Council for Pharmacy Education. Accreditation standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree ("Standards 2016"). Available at: https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf. Accessed April 7, 2020.
- 11. Goodbar NH, Kayla FL. Finding and working with mentors. *Am J Health-Syst Pharm* 2015;72(11):921-922.
- 12. Parker RB, Ellingrod V, DiPiro JT, et al. Preparing clinical pharmacy scientists for careers in clinical/translational research: Can we meet the challenge? *Pharmacotherapy: The J Human Pharmacology and Drug Therapy* 2013;33(12):337-346.
- 13. Desselle SP, Peirce GL, Crabtree BL, et al. Pharmacy faculty workplace issues: Findings from the 2009-2010 COD-COF Joint Task Force on Faculty Workforce. *Am J Pharm Educ* 2011;75(4):63.

- 14. General Pharmaceutical Council. Standards for Pharmacy Professionals. Available at: https://www.pharmacyregulation.org/standards-for-pharmacy-professionals. Accessed April 5, 2020.
- 15. Royal Pharmaceutical Society. New Mentoring Service to support you. Available at: https://www.rpharms.com/about-us/news/details/New-Mentoring-Service-to-support-you. Accessed April 5, 2020.
- 16. Desselle SP. Treating mentoring programs as a scholarly endeavor. *Am J Pharm Educ* 2012;76(6):102.
- 17. Kashiwagi DT, Varkey P, Cook DA. Mentoring programs for physicians in academic medicine: A systematic review. *Acad Med* 2013;88(7):1029-37.
- 18. Nowell L, Norris J, Mrklas K, White D. A literature review of mentorship programs in academic nursing. *J Prof Nurs* 2017;33(5):334-344.
- 19. Muenke M. Mentors without Borders. Mol Genet Genomic Med 2016;4(5):489-493.
- 20. Bussey-Jones J, Bernstein L, Higgins S, et al. Repaving the road to academic success: The IMeRGE approach to peer mentoring. *Acad Med* 2006;81:674–679.
- 21. Nick JM, Delahoyde TM, Del Prato D, et al. Best practices in academic mentoring: A model for excellence. *Nurs Res Pract* 2012;2012:1-9.
- 22. Bryant AL, Aizer Brody A, Perez A, et al. Development and implementation of a peer mentoring program for early career gerontological faculty. *J Nurs Scholarsh* 2015;47(3):258–266.
- 23. Tam, M. Managing change involves changing management: Implications for transforming higher education. *Qual High Educ* 1999;5(3):227-232.
- 24. Schwerdtle P, Morphet J, Hall H. A scoping review of mentorship of health personnel to improve the quality of health care in low and middle-income countries. *Glob Health* 2017;13(1):77.
- 25. Al-Jewair T, Herbert AK, Leggitt VL, et al. Evaluation of faculty mentoring practices in seven U.S. dental schools. *J Dent Educ* 2019;83(12):1392-1401.
- 26. Metzger AH, Hardy YM, Jarvis C, et al. Essential elements for a pharmacy practice mentoring program. *Am J Pharm Educ* 2013;77(2):23.
- 27. Chong, J.Y., Ching, A.H., Renganathan, Y. et al. Enhancing mentoring experiences through ementoring: A systematic scoping review of e-mentoring programs between 2000 and 2017. *Adv Health Sci Educ* 2019;25(1):195–226.
- 28. Brock TP, Assemi M, Corelli RL, et al. A nontraditional faculty development initiative using a social media platform. *Am J Pharm Educ* 2014;78(5):105.
- 29. Jackevicius CA, Le J, Nazer L, et al. A formal mentorship program for faculty development. *Am J Pharm Educ* 2014;78(5):100.
- 30. Brannagan KB, Oriol M. A model for orientation and mentoring of online adjunct faculty in nursing. *Nurs Educ Perspect* 2014;35(2):128-130.
- 31. Hadidi NN, Lindquist R, Buckwalter K. Lighting the fire with mentoring relationships. *J Nurs Educ* 2013;38(4):157-163.
- 32. Cho DB, Cole D, Simiyu K, Luong W, Neufeld V. Mentoring, training and support to global health innovators: A scoping review. *Glob J Health Sci* 2013;5(5):162–173.

- 33. McRae M, Zimmerman KM. Identifying Components of Success Within Health Sciences-Focused Mentoring Programs Through a Review of the Literature. *Am J Pharm Educ* 2019;83(1):6976.
- 34. Desselle S, Rosenthal M, Holmes ER, et al. Components of a Measure to Describe Organizational Culture in Academic Pharmacy. *Am J Pharm Educ* 2017;81(10):6022.
- 35. Carpenter CR, Hurria A, Lundebjerg NE, Walter LC, Mody L. Leadership lessons: Developing mentoring infrastructure for GEMSSTAR scholars. *J Am Geriatr Soc* 2019;67(4):650-656.
- 36. Fawcett DL. Mentoring—what is it and how to make it work. AORN J 2002;75(5):950-954.
- 37. Choi AMK, Moon JE, Steinecke A, Prescott JE. Developing a culture of mentorship to strengthen academic medical centers. *Acad Med* 2019;94(5):630–633.
- 38. Iloh GUP, Chukwuonye ME, Onya ON, Godswill-Uko EU. Mentoring in a resource-constrained context: A single-institutional cross-sectional study of the prevalence, benefits, barriers and predictors among post-graduate medical college fellows and members in South-Eastern Nigeria. *Nigerian Postgraduate Medical Journal* 2019;26(1):38.
- 39. Boswell J, Stark MD, Wilson AD, Onwuegbuzie AJ. The impact of dual roles in mentoring relationships: A mixed research study. *J Couns Prep Superv* 2017;9(2):14.
- 40. William CR, Rodgers PT, McLaughlin JE, Angelo TA, Shepherd G. Comparing empathy levels in doctor of pharmacy students and exemplary pharmacist preceptors. *Am J Pharm Educ* 2019;84(2):17.
- 41. Reid T, Hinderer K, Jarosinski J, Mister B, Seldomridge L. Expert clinician to clinical teacher: Developing a faculty academy and mentoring initiative. *Nurse Educ Pract* 2013;13(4):288-293.
- 42. Esbenshade A, Kahalley L, Baertschiger R, et al. Mentors' perspectives on the successes and challenges of mentoring in the COG Young Investigator mentorship program: A report from the Children's Oncology Group. *Pediatr Blood Cancer* 2019;66(10):e27920.
- 43. Cangelosi PR. Mentoring program for tenure-track faculty: One school's experience. *Annu Rev Nurs Educ* 2006;4:375.
- 44. Sambunjak D, Straus SE, Marusic A. A systematic review of qualitative research on the meaning and characteristics of mentoring in academic medicine. *J Gen Intern Med* 2009;25(1):72–78.
- 45. Litano ML, Major DA. Facilitating a whole-life approach to career development: The role of organizational leadership. *J Career Dev* 2015;43(1):52–65.
- 46. Hollywood KG, Blaess DA, Santin C, Bloom L. Holistic Mentoring and Coaching to sustain organizational change and innovation. *Creighton J Interdisciplinary Leadership* 2016;2(1):32-46.
- **47**. Hobson AJ. ONSIDE Mentoring. *The Wiley International Handbook of Mentoring*. January 2020:521-545.
- 48. Sheri K, Too JYJ, Chuah SEL, et al. A scoping review of mentor training programs in medicine between 1990 and 2017. *Med Educ Online* 2018;24(1):1555435.
- 49. Feldman MD, Huang L, Guglielmo BJ, et al. Training the next generation of research mentors: The University of California, San Francisco, clinical & translational science institute mentor development program. *Clin Transl Sci* 2009;2(3):216–221.
- 50. Blanchard RD, Visintainer PF, La Rochelle J. Cultivating medical education research mentorship as a pathway towards high quality medical education research. *J Gen Intern Med* 2015;30(9):1359–1362.
- 51. Geraci SA, Thigpen SC. A review of mentoring in academic medicine. Am J Med Sci 2017;353(2):151–157.

- 52. Wasserstein AG, Quistberg DA, Shea JA. Mentoring at the University of Pennsylvania: Results of a faculty survey. *J Gen Intern Med* 2007;22(2):210–214.
- 53. Slimmer, L. A teaching mentorship program to facilitate excellence in teaching and learning. *J Prof Nurs* 2012;28(3):182-185.
- 54. Loyal J, Porto A, Camenga D. Creating a program for junior faculty professional development: A tool kit. *MedEdPORTAL* 2018;14:10703.
- 55. Heinrich KT, Oberleitner MG. How a faculty group's peer mentoring of each other's scholarship can enhance retention and recruitment. *J Prof Nurs* 2012;28(1):5-12.
- 56. Conn VS. Mentorship moves science forward. West J Nurs Res 2013;35(5):543-535.
- 57. Jacelon C, Zucker D, Staccarini J, Henneman E. Peer mentoring for tenure-track faculty. *J Prof Nurs* 2003;19(6):335-338.
- 58. White A, Brannan J, Wilson CB. A mentor-protégé program for new faculty, part I: Stories of protégés. *J Nurs Educ* 2010;49(11):601-607.
- 59. Mantzourani E, Desselle S, Le J, Lonie JM, Lucas C. The role of reflective practice in healthcare professions: Next steps for pharmacy education and practice. *Res Social Adm Pharm* 2019;15(12):1476-1479.
- 60. Thompson N, Pascal J. Developing critically reflective practice. *Reflective Pract* 2012;13(2):311–325.
- 61. Gustafsson C, Fagerberg I. Reflection, the way to professional development? *J Clin Nurs* 2004;13(3):271–280.
- 62. Mamede S, Schmidt HG, Penaforte JC. Effects of reflective practice on the accuracy of medical diagnoses. *Med Educ* 2008;42(5):468–475.
- 63. Corcoran S, Baist H. Peer Mentoring of Home Health Occupational Therapists: A Pilot Study. *Ann Int Occup Ther* 2018;1(3):139-146.
- 64. Harker K, O'Toole E, Keshmiripour S, McIntosh M, Sassen C. Mixed-Methods Assessment of a Mentoring Program. *J Libr Adm* 2019;59(8):873-902.
- 65. Eddy JM, Martinez Jr CR, Grossman JB. A randomized controlled trial of a long-term professional mentoring program for children at risk: Outcomes across the first 5 years. *Prev Sci* 2017;18:899-910.
- 66. Peluchette JV, Jeanquart S. Professionals' use of different mentor sources at various career stages: Implications for career success. *J Soc Psychol* 2000;140(5):549-546.
- 67. St-Jean É, Tremblay M, Janssen F. May business mentors act as opportunity brokers and enablers among university students? *Int Entrep Manag J* 2017;13:97–111.
- 68. Welsh ET, Dixon PM. Improving mentoring outcomes: Examining factors outside the relationship. *Journal of Managerial Issues*, 2016; 28 (3):231-247.
- 69. Clark, BE. Corporate control and professional prerogative: An unresolved tension for pharmacists. *Res Social Adm Pharm* 2009;5(4):299-301.
- 70. Elvey R, Hassell K, Hall J. Who do you think you are? Pharmacists' perceptions of their professional identity. *Int J Pharm Pract* 2013;21(5):322–332.
- 71. Schindel TJ, Yuksel N, Breault R, Daniels J, Varnhagen S, Hughes CA. Perceptions of pharmacists' roles in the era of expanding scopes of practice. *Res Social Adm Pharm* 2017;13(1):148-161.
- 72. Gregory P, Austin Z. Pharmacists' lack of profession-hood: Professional identity formation and its implications for practice. *Can Pharm J (Ott)* 2019;152(4):251–256.

- 73. Blouin RA, Adams ML. The role of the pharmacist in health care: Expanding and evolving. *N C Med J* 2017;78(3):165-167.
- 74. Carlberg-Racich S, Wagner CM, Alabdujabbar SA. Professional identity formation in HIV care: Development of clinician scholars in a longitudinal, mentored training program. *J Contin Educ Health Prof* 2018;38(3):158-164.
- 75. Stewart BM, Krueger LE. An evolutionary concept analysis of mentoring in nursing. *J Prof Nurs* 1996;12(5):311-321.
- 76. Eickholt, M. S. The effect of superiors' mentoring on subordinates' organizational identification and workplace outcomes. *Graduate Theses, Dissertations, and Problem Reports* 2018:5533.
- 77. Van Vianen AE, Rosenauer D, Homan AC, Horstmeier CA, Voelpel SC. Career mentoring in context: A multilevel study on differentiated career mentoring and career mentoring climate. *J Hum Resour Manag* 2018;57(2):583-599.
- 78. Efstathiou JA, Drumm MR, Paly JP, et al. Long-term impact of a faculty mentoring program in academic medicine. *PLoS One* 2018;13(11):e0207634.
- 79. Hund AK, Churchill AC., Faist AM, et al. Transforming mentorship in STEM by training scientists to be better leaders. *Ecology and evolution* 2018;8(20):9962-9974.
- 80. Wroten SJ, Waite R. A Call to Action: Mentoring within the Nursing Profession-A Wonderful Gift to Give and Share. *ABNF Journal* 2009;20(4).
- 81. Huang CY, Weng RH, Chen YT. Investigating the relationship among transformational leadership, interpersonal interaction and mentoring functions. *J Clin Nurs* 2016;25(15-16):2144-2155.
- 82. Angelini, DJ. Mentoring in the career development of hospital staff nurses: A study of perceptions. *Diss Abstr Int* 1992;53:26A. UMI No. 9216079.
- 83. Giancola JK, Guillot M, Chatterjee A, Bleckman A, Hoyme HE. Evaluation of a formal pediatric mentorship program. *S D Med* 2018;71(6):256-62.
- 84. Ogdie A, Sparks JA, Angeles-Han ST, et al. Barriers and facilitators of mentoring for trainees and early career Investigators in rheumatology research: Current state, identification of needs, and road map to an Inter-Institutional adult rheumatology mentoring program. *Arthritis Care Res* 2018;70:445–53.
- 85. Colling K, Grabo T, Rowe M, Straneva J. How to develop and sustain a peer-mentored research work group. *J Prof Nurs* 1998;14(5):298-304.
- 86. Goff DA, Karam GH, Haines ST. Impact of a national antimicrobial stewardship mentoring program: Insights and lessons learned. *Am J Health Syst Pharm* 2017;74(4):224–231.
- 87. American College of Clinical Pharmacy. Access a Mentor. Available at: https://www.accp.com/resfel/mentor.aspx. Accessed March 18, 2020.
- 88. California Society of Health System Pharmacists. Mentorship Program. Available at: https://www.cshp.org/members/group_content_view.asp?group=158582&id=712022&hhSearc hTerms=%22mentor%22. Accessed March 23, 2020.
- 89. American Association of Colleges of Pharmacy. Academic Leadership Fellows Program. Available at: https://www.aacp.org/resource/academic-leadership-fellows-program. Accessed March 24, 2020.

90. Pharmaceutical Society of Australia. Mentoring Resource Hub. Available at: https://www.psa.org.au/programs/mentor/. Accessed on April 1, 2020.

Box 1. Sample goals from a mentoring program in a pharmacy organization.

- * Continue and supplement orientation/onboarding by helping pharmacists navigate important organizational dynamics of the institution.
- * Promote and encourage professional development in clinical acumen, professional communication, and other aspects of professional service.
- * Advise and counsel on career development, including succession planning considerations, and provide a liaison to other institutional representatives.
- * Identify resources, including internal or external seminars and workshops on that promote further development and competence.
- * Develop role-modeling behaviors among senior and junior members of the professional staff.
- * Facilitate self-awareness, self-confidence, and self-esteem.
- * Ameliorate stress that may arise from confusion, ambiguity, overload, and social isolation.
- * Facilitate potentially life-long, productive and rewarding relationships among colleagues.
- * Promote collaboration and camaraderie among peers within and across different departments or work units, including the possibility of working together on scholarly endeavors.

Box 2. Example outcomes assessment for the effectiveness of a mentoring program in pharmacy.

An essential component of a quality assurance process is the assessment of programs for effectiveness in accomplishing the desired goals. The mentor program aims to foster development and enhance quality of work life and productivity in many areas. Indicators for program effectiveness for the program include, but are not limited to the following:*

- Leadership/initiative
 - Proffered and implemented recommendations for change (eg, new services, work flow redesign, customer service)
 - Committee or task force membership and leadership
 - o Effective reports and scans of internal and external environments to promote practice
- Service recognition
 - Effective contributions to the department/work unit, organization, profession, and community, at large.
- Productivity in practice
 - Evaluations of effectiveness by other team members, prescribers, other health professionals, patients, and/or other relevant stakeholders
 - Number of patients seen/interventions performed
 - Billable services
 - Creativity and productivity in practice
 - Patient satisfaction
 - Quality assurance/patient safety/lack of errors
 - Medication reconciliation activities
- Development activities
- Satisfaction with the program
 - Survey of mentor-mentee teams
 - o Feedback during the annual review with supervisors
- Mobility, promotions of mentor and/or mentee
- Awards, recognition of mentor and/or mentee

^{*}It is recognized that productivity (or lack, thereof) in any of these is not solely the result of the mentorship program; however, measuring productivity in these areas is critical in evaluating program effectiveness.