Mentoring in Palliative Medicine: Guiding Program Design through Thematic Analysis of Mentoring in Internal Medicine between 2000 and 2015

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Abstract

Background: Mentoring in Palliative Medicine is critical to training, career satisfaction and professional development. Yet, there are no accounts of effective mentoring programs in Palliative Medicine. This gap is attributed to a failure to define mentoring practice and a lack of acknowledgment of mentoring's context-specific, goal-sensitive, mentee-, mentor- and organizational-dependent nature that has hindered effective review of mentoring programs.

Objective: Drawing upon similarities between training in Palliative Medicine and Internal Medicine, this thematic analysis seeks to identify common themes in prevailing mentoring programs in Internal Medicine that can guide the design of mentoring programs in Palliative Medicine.

Design: A thematic review of literature reviews, systematic reviews and meta-analyses featured in PubMed, ERIC, Cochrane Database of Systematic Reviews, OVID and Science Direct databases and published in English between 1st January 2000 and 31st December 2015 involving mentoring in Internal Medicine was carried out.

Results: 466 abstracts were retrieved, 17 full-text reviews evaluated and 7 reviews included. Thematic analysis revealed 9 themes: common features within definitions of mentoring, characteristics of mentoring relationships, the mentoring approach, facets of the mentoring process, desired characteristics/actions of a mentor and mentee, benefits and drawbacks of mentoring and differences between undergraduate and postgraduate mentoring.

Conclusions: Common themes highlight the importance of nurturing personalized mentoring relationships and addressing the different goals of mentoring in undergraduate and postgraduate settings. Supportive mentoring environments can be provided through host organizations that help in selecting, training and supporting mentees and mentors to meet clearly defined goals.

Introduction

Mentoring enhances clinical learning, nurtures professional development and professional identities and improves compliance of professional and social standards and improves "*skills, attitudes and practices in caring for dying patients*" [1-21]. However, mentoring in Palliative Medicine remains poorly studied [20-28]. This gap is made more evident in the face of mushrooming Palliative Medicine programs in postgraduate and undergraduate settings that increasingly acknowledge the need for mentoring programs to advance training and support trainees [20-30].

Comparability between undergraduate and postgraduate training in Palliative Medicine and Internal Medicine suggests that lessons learnt from mentoring programs in Internal Medicine may be applied in guiding the design similar programs in Palliative Medicine. Yet even

within Internal Medicine, mentoring practice remains varied and poorly delineated [14-17,20,21,29,30]. This is attributed to the absence of a universally accepted definition of mentoring, a common approach to mentoring, [14-17,20,21,29,30] the continued conflation of mentoring processes including peer, near-peer, leadership, patient, youth and family mentoring [20,21,29] and the mistaken blending of preceptorship, counseling, role modeling, sponsorship and supervision [14-17,20,21,29,30] with mentoring. Kashiwagi et al. [14] noted that such intermingling of terms impedes the provision of consistent, specific, timely, appropriate and personalised mentoring support, obscures mentoring goals and inhibits the proffering of best practices in mentoring. The subsequent lack of a consistent mentoring approach endangers the oversight of mentoring relationships, obscures mentoring roles and responsibilities and impedes the attainment of mentoring goals [14-17,20,21,29,30], which ultimately compromises the mentoring process.

Some mentoring programs in undergraduate medical and early postgraduate training have confined their attention to mentoring

between experienced clinicians and junior doctors and medical students to improve oversight of the mentoring process and provide effective mentoring support. [14-21] Wu et al. [20] and Wahab et al. [21] report that adoption of a mentoring approach involving a senior clinician and a novice will better assure the quality of advice, counsel and support provided. This approach also facilitates the employ [20,21] of trained mentors who are better able to nurture mentoring relationships and support mentees in changing conditions and would ensure that mentoring content will be consistent with the goals of the mentoring program.

Limiting attention to a specific form of mentoring, in this case mentoring between experienced clinicians and junior doctors and medical students, is also serves to acknowledge mentoring's context-specific, goal-sensitive, organizational-, relational-, mentor- and mentee-dependent nature which prevents simple comparison between different mentoring approaches and settings and the seamless adaptation of mentoring practices from one setting to another even, within the same speciality. To circumnavigate such considerations scrutiny of mentoring practices must take the form of a qualitative review focused upon identification of common themes within successful mentoring programs that can be better adapted to guide the design of mentoring programs beyond Internal Medicine. To allow holistic evaluation of mentoring between experienced clinicians and junior doctors and medical students, this thematic review must focus on all forms of mentoring programs so as not to ignore accounts of 'informal mentoring'.

Methods

Recognizing mentoring's context-specific, goal-sensitive, organizational-, relational-, mentor- and mentee-dependent nature and the presence of differing mentoring practices in different clinical settings and healthcare, social and training systems this thematic review confines itself to evaluation of systematic reviews of mentoring [31] to identify common themes within the practices of successful mentoring programs. Thematic analysis of regnant mentoring reviews permit scrutiny of the various stages of the mentoring processes that underpin mentoring successes and remain focused upon descriptions of mentoring approaches and the key elements behind the successes and obstacles to effective mentoring [13,14]. Finally employment of a thematic review allows for our own experiences and knowledge of existing practices to guide the direction of this review.

Identification and selection of studies

Our literature search (Figure 1) included PubMed, ERIC, Cochrane Database of Systematic Reviews, OVID and ScienceDirect databases to identify literature reviews, systematic reviews or meta-analyses on the mentoring of medical undergraduates, residents and junior physicians by senior medical professionals in adult Internal Medicine between the 1st January 2000 and 31st December 2015. The search terms employed included "mentor*" AND "medicine"/"medical" AND "review" and included "physician", "resident", "faculty" or "student" (or related terms).

Study eligibility criteria

We limited our attention to mentoring programs provided by Internal Medicine Departments or faculty involving medical students, residents and postgraduates in clinical and academic settings. We included reviews in English or those that had English translations.

This review includes dyadic (one-to-one, senior-to-junior, face-to-face) [32] mentoring approaches, group mentoring and e-mentoring approaches that are often associated with mentoring between a senior clinician and a junior inexperienced physician or medical student. An e-mentoring approach is one where mentoring interactions between mentor and mentee are carried out entirely or in part online, by text messaging and/or email as a means of supplementing or even replacing traditional face-to-face meetings.

This review includes accounts of all forms of mentoring programs and is not be limited to mentoring programs with a "recognized infrastructure for mentoring" that would ignore 'informal mentoring' programs [14]. This holistic approach redresses a design limitation in Kashiwagi et al. [14] earlier evaluation of mentoring relationships in Internal Medicine.

Guided by the World Health Organization's Health Workers classification [33], we excluded literature reviews, systematic reviews or meta-analyses that were not exclusively focused upon adult internal medicine such as surgical specialties, Pediatrics, Emergency Medicine, Obstetrics and Gynecology and Clinical and Translational Science.

Our working understanding of mentoring inspired by the American Academy of Hospice and Palliative Medicine (AAHPM) College of Palliative Care (2006) envisaged mentoring to be a *"... dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a beginner (protégé), aimed at promoting the development of both"* [33,34]. Thus we also excluded reviews on supervision, coaching, role-modelling, advisor and sponsorship, which are frequently conflated with mentoring and do not encapsulate the holistic concept of mentoring adopted in this review. We see supervision as being focused upon professional development, [35] coaching as facilitating learner development through use of "*deliberate practice strategies*" [36], role-modelling as setting out to create a positive example of good practice, an advisor as helping with scheduling, logistics and applications [17,32] and sponsorship as dependence upon the influence of another for promotion and advancement [37]. However, to improve the rigor of our review, we reviewed prevailing systematic reviews of supervision, coaching, role-modelling, advisor and sponsorship and found that none had conflated these terms sufficiently to warrant inclusion here.

We excluded peer, near peer, family, patient and youth mentoring as they did not involve a senior-junior faculty interaction. Given the diversity of practice, we excluded perspective and reflective pieces, commentaries, editorials, protocols and recommendations on mentoring practice. Initial review of grey literature and non-peer reviewed articles did not identify any articles that met our inclusion criteria.

Data extraction process

Four authors (MFMI, WJT, MTW, LK) carried out independent searches and compiled a shortlist of articles. These lists were compared and discussed online and at an authors' meeting where any disagreements in the articles included saw each paper reviewed, discussed and a majority decision sought. Consensus between all the authors was achieved in all cases.

In the absence of an a priori framework for mentoring and in the face of a lack of understanding of mentoring processes in medicine we thematically analyzed mentoring accounts featured in these reviews. Semantic themes were identified from 'detail rich' codes focused upon the various aspects of the mentoring process [38]. In keeping with

Braun and Clarke's approach to thematic analysis, themes were constructed from the 'surface' meaning of the data [38]. The four authors (MFMI, WJT, MTW, LK) carried out independent thematic analysis on the included articles. Any disagreement on the coding, individual code books and the themes that arose from the codes were discussed online. Where there was disagreement the authors reviewed the codes and themes at a researcher's meeting and consensus between all the authors was attained in all cases.

In keeping with Braun and Clarke's approach, descriptions captured within the semantic themes are presented in the results section and are only analyzed and interpreted in the discussion segment of the paper [38].

Assessment of risk of bias and study quality

The assessment of risk of bias for these papers selected were appraised using the Joanna Briggs Institute (JBI) Critical Appraisal checklist in the data extraction process (See Appendix).

Results

A total of 466 abstracts were evaluated, 17 full-text articles were reviewed and 7 reviews were included in this review (Figure 1). Thematic analysis of the included reviews revealed 8 semantic themes including: Common features within definitions of mentoring, characteristics of mentoring relationships, the mentoring approach, facets facilitating a successful mentoring process, desired characteristics and actions of a mentor, desired characteristics and actions of a mentee, the benefits of mentoring and the drawbacks of mentoring. Each theme will be addressed in turn.

Common features within definitions of mentoring

The primary themes within the 14 definitions of mentoring identified in this review characterize 8 subthemes which include the benefits of mentoring, mentoring relationships, mentor's and mentees characteristics and actions, context-specific factors, goal-sensitive factors and the mentoring approach employed (Table 1). Whilst these subthemes reflect the themes identified, they do introduce mentoring's novel entwined nature which sees the various subthemes intimately interrelated and influencing one another.

Whilst the primary goal of mentoring programs is the mentee's overall development, the secondary goals vary and are often dependent upon the mentee's needs and abilities and context-specific factors. The influence of mentee-dependent and context-specific factors are evident in definitions of mentoring in postgraduate, undergraduate, clinical, research and academic settings.

With undergraduate mentoring focusing on upon specific and standardized outcomes, mentors are required to act as guides, advisors, role models and teachers. On the other hand, mentoring in postgraduate medicine focuses upon realizing mentee-specified goals that sees mentors act as facilitators. Thus, the educational context influences the mentor's role and approach. Similarly, the mentor's ability and mentee's goals determine the roles mentors adopt.
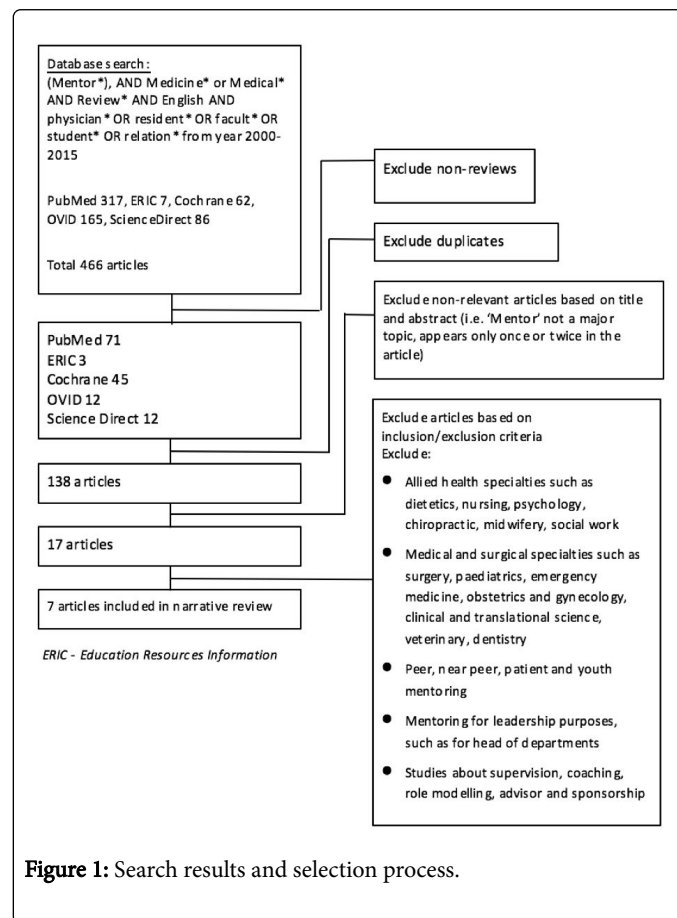
Figure 1: Search results and selection process.

Source	Definitions	Themes from Definition(s) of Mentorship
Sambunjak et al. [16]	1. A complex relationship based on mutual interests, both professional and personal 2. Meaning of "mentorship" is context dependent; terms such as "supervision" and "role-modelling" also are used interchangeably without clear demarcation, all describing developmental interactions	●Relationships ●Benefits to mentees ●Benefits to mentors ●Context-dependent
Sambunjak et al. [40]	1. A dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a beginner (mentee), aimed at promoting the development of both. 2. A partnership in personal and professional growth and development.	●Relationships ●Benefits to mentees ●Benefits to mentors ●Context-dependent

Kashiwagi et al. [14]	1. Mentoring model or program, defined as a formal activity or series of activities supporting development and personal growth of physicians; mentoring program for 2. The successful mentoring relationship in medicine develops when a mentor with skills, knowledge, and experience provides advice, guidance, and support to his or her mentee. These interactions foster characteristics and qualities in mentees that enable a successful career trajectory physicians out of training; mentors described as medical professionals.	●Context-dependent ●Mentor characteristics ●Benefits ●Mentor actions
Beech et al. [41]	1. Although numerous definitions of mentoring exist in the professional literature, traditionally it is a process through which a senior, experienced faculty member (mentor) provides guidance and support for a junior or less experienced colleague (mentee). 2. A developmental partnership in which knowledge, experience, skills, and information are shared between mentor(s) and mentee(s) to foster the mentee's professional development and, often, also to enhance the mentor's perspectives and knowledge.	●Mentor characteristics ●Mentor action ●Mentee characteristics ●Relationships ●Benefits
Frei et al. [17]	1. A process whereby an experienced, highly regarded, empathetic person (the mentor) guides another (usually younger) individual (the mentee) in the development and re-examination of their own ideas, learning, and personal and professional development. The mentor, who often (but not necessarily) works in the same organization or field as the mentee, achieves this by listening or talking in confidence to the mentee. 2. An insightful process in which the mentor's wisdom is acquired and modified as needed, as well as a process that is supportive and often protective. The successful mentor-mentee relationship therefore requires the active participation of both parties. The mentoring relationship can be structured or loose. It can be a relatively short process or an ongoing one. There can be breaks in the relationship, with its re-establishment at some future time. The mentoring relationship is a dynamic one, evolving over time, during which both parties continually define and redefine their roles. It should be considered a process, not an end result, and the relationship must remain non-competitive. 3. Unlike coaching or counselling, mentoring is a cost-free career-promotion strategy based on a personal relationship in a professional context. Whereas a tutor, teacher/educator, coach, or supervisor mainly focuses on promoting and supporting a junior's professional skills, a mentor is an active partner in an ongoing relationship who helps a mentee to maximize his or her potential and to reach personal and professional goals. 4. A career mentor is someone who plays an active role in helping the student in his/her professional and personal development. Mentoring also comprises supporting a mentee in coping with stress and in establishing a satisfying work-life balance. 5. Mentoring is a relational process in which five phases can be distinguished: information on career options, developing career plans, focusing on career goals, realization of career steps, and evaluation of career advancement.	●Mentor characteristics ●Mentor action ●Mentee characteristics ●Benefits ●Context-dependent ●Mentor action ●Relationships
Davis et al. [39]	1. A function of a relationship that (1) rests on a set of interactional foundations (the fundamental elements of the mentor–proté ge´ relationship that inform their interactions) that allow a protege´ to capitalize on his or her mentor's strengths and (2) enables a protegé to engage in behaviors that foster the development and growth that will yield a maximal outcome.	●Relationships ●Benefits
Buddeberg-Fischer et al. [15]	-	NIL

Table 1: Definitions of mentorship.

Characteristics of mentoring relationships

At the heart of a successful mentoring process is the mentoring relationship or the relational aspects of mentoring. There are 3 facets to the relational aspects of mentoring- the shared values and beliefs that form the foundation of the mentoring relationship, the factors that influence its growth and its ability to evolve with changing conditions.

Foundations and values: Sambunjak et al. [16] and Davis et al. [39] believe that effective mentoring relationships are built upon shared values, goals and beliefs. This introduces a personal element to the mentoring relationship which evolves with growing trust and mutual respect in a mentoring environment that inspires open and frank exchange of ideas and discussions on confidential and personal matters [16,40]. The presence of these personal ties, personal investment into the mentoring relationship and motivation to sustain it forms the foundation of a dynamic mentoring relationship that responds to changing conditions and demands throughout the mentoring process [20,21,32].

Reciprocal relationship between mentor and mentee: Sambunjak et al. [16], Frei et al. [17], and Davis et al. [39] believe that the reciprocal nature of mentoring relationships allows mentees and mentors to enjoy the well-evidenced benefits of mentoring and inspires them to remain invested in the development of the mentoring relationship [16,17,40].

Dynamic process and evolution of relationship: Changes in the professional and personal circumstances of mentors and mentees and in environmental, social and organizational factors surrounding the host organization, mentors and/or mentees impact the mentoring relationship and highlight the evolving and entwined nature of mentoring relationships [17,40]. Sambunjak et al. [16] noted that mentoring relationships culminate in the development of a peer or collegiate relationship sustained by friendship long after the mentoring process has been completed [17].

Mentoring approach

The development of mentoring relations is dependent upon the mentoring approach adopted [14-17,20,21,32,40]. Informal and formal

mentoring are the two dominant forms of mentoring approaches reported. Five reviews [14-17,40] explored the structures and goals of formal and informal mentoring and how mentors are selected within each approach.

Informal mentoring revolves around the idea of apprenticeship in medicine [16,40]. Rarely supported by an organization and formal assessments of mentees; informal mentoring is often seen as an ad hoc arrangement between mentors and mentees that is usually mentee-initiated and built upon shared interests and personal ties [16]. The collegial atmosphere of an informal mentoring approach is said to create a safe environment, which fosters open communication and the development of personal and dynamic relationships [40]. Informal mentoring relationships are also believed to increase mentee commitment and generally achieve beneficial outcomes despite its relative lack of infrastructure [16,40].

The lack of 'protected time' for mentoring activities in informal programs, however, raises concerns about the ability of mentors to effectively support mentees [14]. Time pressures and competing interests amongst mentors also fan concerns that only outstanding students are selected as mentees [14]. A further concern regarding informal mentoring is its apparent lack of oversight and transparency given the lack of organizational support and governance [16,40].

Formal mentoring differs from an informal process in the manner that mentoring relationships are initiated, in their overall goals and in the employ of a structured mentoring program. All three of these traditionally viewed differences are open to contention [14-16].

Whilst Sambunjak et al. [16] report that formal mentoring programs assign mentors, Kashiwagi et al. [14] argue that self-appointed mentoring relationships may be considered formal so long as they remain within a recognized institutional infrastructure.

Mentee selection of mentors based on shared personal interests and ambitions from a list of potential mentors and employ of 'trial periods' to allow mentees and mentors time to see if they can work together blends lessons learnt from mentee-initiated relationships in informal mentoring and 'matching' of mentors to mentees based upon shared goals and interests and complementary personal and professional characteristics [14-16]. Use of mentee selection of mentors from an approved list of mentors acknowledges the central importance of interpersonal relationships in mentoring relationships and the significance of engaging mentees during the initiation process and addressing their individual needs and preferences [14-16].

Kashiwagi et al. [14] suggest that a standardized approach to mentoring courtesy of a structured mentoring program ensures clarity of mentoring roles and responsibilities, improved oversight of the mentoring relationship and established clear mentoring outcomes [14]. The authors also suggest that housing mentoring programs within a formal structure actualizes three considerations. First, it increases faculty participation and boosts mentor numbers which helps attenuate concerns of gender, ethnicity, race, religion, culture and socioeconomic mismatches that have been seen to be obstacles to effective mentoring [14-16]. In addition, the presence of more faculty involvement in the mentoring program helps ensure better support for mentors, oversight of the mentoring process and potentially better training of mentors and even mentoring of mentors. Second, the presence of 'protected time' within mentor's timetables allows mentors to devote time exclusively to mentoring activities [16]. Third, funding from both external and internal sources [14] helps sustain the program, provide the necessary infrastructure and allows participation

in mentoring to be better incentivized through monetary remunerations, promotions [14] and awards for excellence [16].

Facilitating a successful mentoring process

Related to discussions of a structured mentoring process and the need for a formal mentoring program are several factors important to the mentoring process including mentor training and pre-mentoring meetings where agendas, expectations and responsibilities are agreed upon and codes of conduct set.

Mentor training: Frequently associated with formal mentoring programs, mentor training improves mentoring proficiency, recruitment and mentoring relationship [14,16,40]. Use of simulations, group coaching, provision of books and manuals, seminars, and workshops have been proposed to train mentors [14,16,40].

Initiation and setting of objectives: Written or verbally agreed upon objectives, roles and responsibilities at the start of mentoring relationships help build relationships and prevent potential conflict [14,16]. Often agreement upon mentoring goals and objectives and decisions as to whether to work together occur at pre-mentoring meetings.

Duration of mentoring relationship and frequency of meetings: Another critical aspect to laying the foundations of an effective mentoring relationship is agreement upon the frequency of mentoring meetings, their form and the duration of the relationship. Goal-specific and influenced by mentor, mentee, organizational and environmental considerations, there is no consensus amongst prevailing reviews on the optimum duration of the mentorship relationship or the frequency of meetings and the frequency of meetings varies from once a week to twice yearly [14,16].

Importance of race, gender and ethnicity pairing: The impact of matching mentors based on the mentee's race, gender and ethnicity is debatable [16]. Sambunjak et al. [16] suggest that having compatible personalities, values and styles, and sensitivity and acknowledgement of gender, cultural and ethnic differences can bridge any race, gender and cultural differences though other reviews make little mention of this [16].

Desired characteristics and actions of a mentor

The characteristics of a mentor may be categorized into 3 groups (Table 2):

a. Personal (characteristics that involve the mentor/mentee's inherent personality traits and attitudes towards mentoring)

b. Professional (characteristics that involves the mentor/mentee's professional career and practice)

c. Undesired (characteristics that were deemed to be unsuitable for mentors/mentees to have).

Personal characteristics and actions of mentor: The desired personal traits of mentors include actively seeking out mentees to evaluate their progress and providing empathetic, appropriate, timely and personalized personal and professional support [17,33,39,41]. This helps build trusting relationships, which empower mentees and enable mentors to address the mentees' feelings and anxieties, offer moral support, friendship and nurture mentees in a safe emotional environment [16,17,33,39-41].

Personal Traits	Professional Traits	Undesired Traits
Altruistic	Knowledgeable	Authoritative
Reliable	Influential	-
Collegial	-	-
Sincere	-	-
Trustworthy	-	-
Understanding	-	-
Friendly	-	-
Responsive	-	-
Patient	-	-
Committed	-	-
Respectful	-	-
Approachable	-	-
Honest	-	-
Motivator	-	-
Positive Attitude	-	-
Non-Judgmental	-	-
Active listener	-	-
Have best interests of mentee at heart	-	-
Cultivates emotional safety	-	-
Derives joy in educating	-	-

Table 2: Desired characteristics of mentors.

Professional characteristics and actions of mentor: The professional characteristics of a mentor include being thought leaders and authorities in their field, being "generous" in their commitment of time and energy in imparting knowledge and guidance to help mentees achieve their goals, in providing career advice, in role-modelling academic, ethical and professional practice and acting as sponsors and facilitating the networking of their mentees [16,17,40]. Mentors should also be 'proactive' in addressing any potential stressors that may affect their mentees and 'protecting' them from adverse influences or harsh interactions [16,40]. Mentors must provide regular, constructive, appropriate, timely and objective feedback [16,40].

Undesired characteristics of mentor: There is little research on the undesired characteristics and actions of a mentor although an authoritative personality, a lack of mentoring skills and taking credit for mentee's work/research is viewed as undesirable traits in a mentor [16].

Desired characteristics and actions of a mentee

Personal characteristics of mentee: The desired characteristics of a mentee include honesty, reliability, reflectiveness, self-awareness and being committed and motivated to learn [16,17,40]. Mentees must be willing to discuss their flaws, ask for advice, accept criticism and learn from their mistakes [16,17,40].

Professional characteristics and actions of mentee: A successful mentee is professional and ethical, and is passionate about succeeding. Mentees should be proactive in cultivating relationships with mentors, setting meeting agendas and meeting deadlines [16,17].

Undesired characteristics of mentee: The undesirable traits of a mentee include being afraid to face personal and professional shortcomings and being resistant to making necessary changes [16].

Benefits of mentoring

Benefits to mentees: There are personal and professional benefits to mentees (Table 3).

Benefits of mentoring to mentees	
Personal	**Professional**
Character	**Career**
Improved self-confidence	Improved career prospects/increased promotions
Improved self-efficacy	Improved meeting attendance
Improved 'well-being'	Improved job retention
Personal abilities	Career support
Improved communication and moral support	Career advice
Expansion and consolidation of social skills	Influence on career path
Satisfaction	**Clinical**
Career/fellowship	Improved clinical performance
Mentoring program	Improved patient care
Career mentoring advice	**Academic (research)**
Elective advice	Increased research productivity/ publications/grants
Residency application process	Improved research skills
Others	Better research opportunities
Garner psychosocial benefits	Improved support and resources for research
Better emotional and moral support	Improved research time allocation
Improved academic/research interest	**Academic (non-research)**
-	Improved teaching skills
-	Increased professional society and committee nominations
-	**Others**
-	Improved medical school performance
-	Improved institutional support and backing

Table 3: Benefits of mentoring to mentees.

The personal benefits for mentees include the receipt of moral and emotional support, and improved self-confidence and communication skills. Professional benefits to mentees include better career prospects, increased promotions, better job retention and increased committee nominations.

Benefits to mentors: The benefits of mentoring to mentors are not commonly discussed. Personal benefits include the opportunity to share knowledge and experience, having satisfaction and pride in a mentee's success and a chance to 'pay it forward' [14,40]. Professional benefits to a mentor include exposure to new ideas, gaining new collaborators, improved job performance, professional growth and accelerated research productivity and promotions [14,17].

Drawbacks of mentoring

The drawbacks of mentoring are only discussed briefly in 3 reviews and relate to "exploitative" [14] relationships involving vulnerable mentees and mentee's over-dependence upon their mentors [16].

Discussion

Mentoring between senior clinicians and medical students and/or junior physicians occurs in a wide array of internal medicine-associated clinical specialties and health care systems, often involving mentors and mentees from diverse backgrounds, abilities and motivations focused upon realizing individualized goals. Circumnavigating the effects of differing mentoring styles and focus, different health care, training and education systems and the impact of mentoring's evolving, goal-driven, context-specific, mentor- and mentee-dependent nature of mentoring practice through thematic analysis of literature reviews, systematic reviews and meta-analyses of mentoring practice highlights new aspects of mentoring such as its organizational-dependent (dependence upon organizational factors to support and sustain the mentoring process), 'relational-sensitive' (sensitive to the quality of the relationship) and entwined (suggesting that each aspect of the mentoring process is intimately linked and affected by one another) nature [20]. This approach also allows identification of common themes in the mentoring appreciation of the aspects of mentoring.

To fully appreciate and apply these common themes within successful mentoring to the Palliative Medicine mentoring scene understanding these newly described facets of mentoring is critical.

The context-specific nature of mentoring

Mentoring's context-specific nature has previously been described by Frei et al. [17], Sambunjak et al. [16,40] and Kashiwagi et al. [14] Sambunjak et al. [16] and Frei et al. [17] state that mentoring takes different forms in different settings, emphasizing the differences between mentoring in the clinical setting and that of research or academic mentoring. This review expands on these findings underscoring the differences between mentoring in the undergraduate and postgraduate settings. Mentoring in the undergraduate setting tends to revolve around teaching and guidance, in terms of helping with preparation for various phases in medical school and stimulating interest in specialties and research [15]. Whilst postgraduate mentoring tends to concern itself with honing skills, providing holistic support and opening doors to new possibilities. These differences are in part the result of varying mentoring goals, mentoring requirements and mentoring approaches employed to meet the unique needs and the abilities of the mentor and the mentee in each particular mentoring relationship.

The mentor-dependent nature of mentoring

The mentor's ability to meet the needs of the mentee and support them appropriately and in a timely and personal manner and build an effective mentoring relationship with the mentee underscores the mentor-dependent nature of mentoring. This is underlined by the different roles and demands placed upon mentors by undergraduates and postgraduates.

The mentee-dependent nature of mentoring

Mentoring must be tailored to meet the mentee's experiences, education level, competencies, confidence levels, skills and goals as well as changing situations. Underscoring mentoring's mentee-dependent nature is evidence that mentoring in undergraduate and postgraduates settings differ significantly.

The evolving nature of mentoring

Mentoring is neither static nor progresses in a consistent manner. Changing academic, personal, professional and research circumstances cause the mentoring process to take different forms to suit evolving short term objectives and long term goals. These changes also require mentors to play different roles and mentees to respond appropriately depending upon their situation, ability and motivation. Mentoring is thus an adaptive process, responding to actual and potential challenges and opportunities.

The goal-sensitive nature of mentoring

Progress of a mentoring relationship results in different challenges and changes short-term and medium objectives to realize the long-term goals of the mentoring process. These adaptations to shifting objectives reveal a goal-sensitive to mentoring.

Organizational aspects of mentoring

Adaptations are also required of host organizations that house, support and sustain mentoring programs. The ability of the organization to continue to fund, attract and train mentors have an undeniable effect upon mentoring yet data here suggests a much more significant role for the host organization that not only underscores the organizational-dependent aspect of mentoring but highlights its integral role in the mentoring relationship.

Until now organizational influences were seen to have indirect effect upon the mentoring relationships in providing mentor training, running the matching process training mentors to appraise mentees and scheduling pre-mentoring meetings for mentors and mentee. Data here would suggest that organizational factors are key in the creation and development of the mentoring environment that facilitates frank discussions, exchange of opinions and ideas and discussions of a personal nature that promote the maturation of mentoring relationships. Importantly support and interactions between the host organization and mentors have a direct impact upon the mentoring relationship. The impact of direct interactions between mentees and the host organization is postulated to revolve around oversight of the mentoring process and providing a second source of advice and support.

The relational-dependent aspect of mentoring

Whilst it is clear mentoring revolves and is affected by a variety of considerations, in truth mentoring processes pivot on how mentor and mentee interact in different settings over time and the face of different pressures and goals. This underlines the relational-dependent aspect of mentoring relies on the quality of mentoring interactions between mentor and mentee. The greater the quality of mentoring relationships the more robust and adaptable the relationship. Developing experience and knowledge and increasing confidence and skills empowers mentees and influences mentoring interactions between mentor and mentee or the dynamics of mentoring relationships.

The adaptable nature of mentoring

Mentoring relationships particularly those in the clinical setting are often affected by a wide array of external influences and considerations. Sustaining effective mentoring relationships particularly in the face of time, travel and physical constraints requires adaptability. Adaptability depends upon the motivations and willingness of the mentee and mentor to make allowances for and work around prevailing limitations in part as result of the quality of their mentoring relationship and their ability to change working and communication approaches to overcome prevailing constraints.

In addition, organizational support in providing mentors with time and facilities to meet the needs of the mentee also enhance the adaptability of the mentoring process.

The entwined nature of mentoring

Co-dependence of mentor, mentee, organizational, goal and contextual factors underline the entwined nature of mentoring. The mentor's capabilities, the mentee's motivation and abilities, the clinical context, regnant short term and overall goals, the host organization's ability to support mentoring relationships through evolving conditions and the flexibility of the mentoring relationship all impact one another and underline the entwined nature of mentoring. This aspect of mentoring's nature underlines a significant failing of prevailing mentoring programs that pay too much attention on certain aspects of the mentoring process often to the detriment of others.

Impact of these findings upon mentoring in palliative medicine

The findings of this thematic review have significant ramifications upon plans to extrapolate lessons learnt in Internal Medicine to mentoring in Palliative Medicine. Corroborating prevailing data on mentoring's goal-sensitive, context-specific, mentor- and mentee-dependent nature of mentoring and supporting posits on the influence of the host organization upon the mentoring process, the central importance of mentoring relationships, the adaptability of mentoring relationships and the impact of the evolving nature of mentoring relationships, this review helps focus the design of mentoring programs.

First matching of mentees and mentors, mentoring approaches and environments, mentor and mentee training and mentoring oversight needs to be purpose designed. As a result mentoring approaches in undergraduate and postgraduate settings and in clinical and research arenas need to be distinct and purpose designed to meet the specific contextual, mentee and mentor and goals of the mentoring processes.

Second, the entwined nature of mentoring forces careful consideration of Palliative Medicine's use of multidisciplinary team (MDT) mentoring that sees the physician trainee mentored by senior members of the MDT including senior psychologists, social workers, nurses, occupational therapists, physiotherapists and clinicians from a variety of medical and surgical backgrounds and raises questions as the quality and oversight of the mentoring support. This underlines the need to carefully consider the context and set up of Palliative Medicine training and the need to engage other stakeholders to set common mentoring goals and approaches to ensure effective oversight of the process and allow for the forwarding of a consistent MDT mentoring approach.

Limitations

With mentoring being context-specific, goal-driven and learner-specific, the conclusions and impact of this review may be limited by the varied inclusion and exclusion criteria, presence of different study populations with diverse levels of experience, clinical backgrounds and levels of training and involvement of various healthcare settings and clinical specialties in the studies reviewed.

Comparisons between the results and/or outcomes of mentoring are also limited by the diverse methodologies included in some of the reviews. This situation is compounded by the dominance of reviews from the USA replete with its unique healthcare and training system that sits apart from those employed in the rest of the world. The absence of standardized metrics or mentoring tools and use of different outcome measures also complicates comparisons and restricts potential applications of these findings in other clinical, academic and research settings.

Critically these considerations question the viability of extrapolating data from Internal Medicine. Rather what are required are robust studies to understand and analyze prevailing mentoring approaches, the dynamics behind the mentoring relationships and the role of host organizations within the Palliative Medicine setting.

Conclusion

The individualized nature of mentoring, its dependence upon a vast array of support mechanisms and the interrelated nature of its various elements demands a holistic approach to the development, oversight and appraisal of a mentoring program. Evidence of the entwined nature of mentoring serves to underline this fact and emphasize the need for equal attention to all aspects of mentoring process.

Guiding this mentoring program must be an organization with clear goals and a willingness to provide sustained support for the program, invest in its mentors, nurture each individual mentoring relationship and maintain an effective mentoring environment. To succeed and then develop and replicate these successes across medicine requires more robust and longitudinal studies across a variety of settings but confined to a specific form of mentoring as we have discussed thus far.

Deeper understanding of the formation, evolution and end of mentoring relationships is as critical to the future of mentoring as the provision of a learning theory of mentoring. Thus, if mentoring is to have a role in medical education reliance upon ad hoc programs and maverick mentors must give way to organized programs guided by a coherent learning theory holistic informed by evidenced based practice and data.

Lessons for practice:

- Mentoring is an evolving, adaptive, relational-, mentee-, mentor-, and organizational-dependent process aimed at providing holistic and consistent support to mentees
- A consistent mentoring approach is essential to effective mentoring relationships that underpin successful mentoring programs
- The mentoring process also provides benefits to mentors and the host organization
- Mentoring environments conducive to open discussions and frank exchange of ideas are critical and dependent upon the host organization
- Mentoring programs must account for differences in mentee, mentor, goals and contextual differences between mentoring in undergraduate and postgraduate settings to ensure effective oversight of the process.

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Contributors

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