Enhancing Mentoring in Palliative Medicine: Combining Novice-, Peer-, Near-Peer and E-Mentoring – A Systematic Scoping Review (2000 to 2018)

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Current Novice-Mentoring

Novice mentoring, defined as a "*process whereby an experienced, highly regarded, empathetic person (the mentor) guides another (usually younger) individual (the mentee) in his/her own (the mentee's) learning, personal, and professional development*" has been shown in Palliative Medicine (PM) to enhance clinical skills, increase research output, inculcate appropriate "attitudes and practices in caring for dying patients", and boost the reputation of host organizations.

However, recent reviews of mentoring in Palliative medicine suggest that novice mentoring's successes are increasingly under threat from a shortage of trained and experienced mentors, limited resources and variations in mentoring approaches. These gaps have compromised the support and assessments of mentoring relationships and programs and raised concerns about abuse of mentoring relationships.
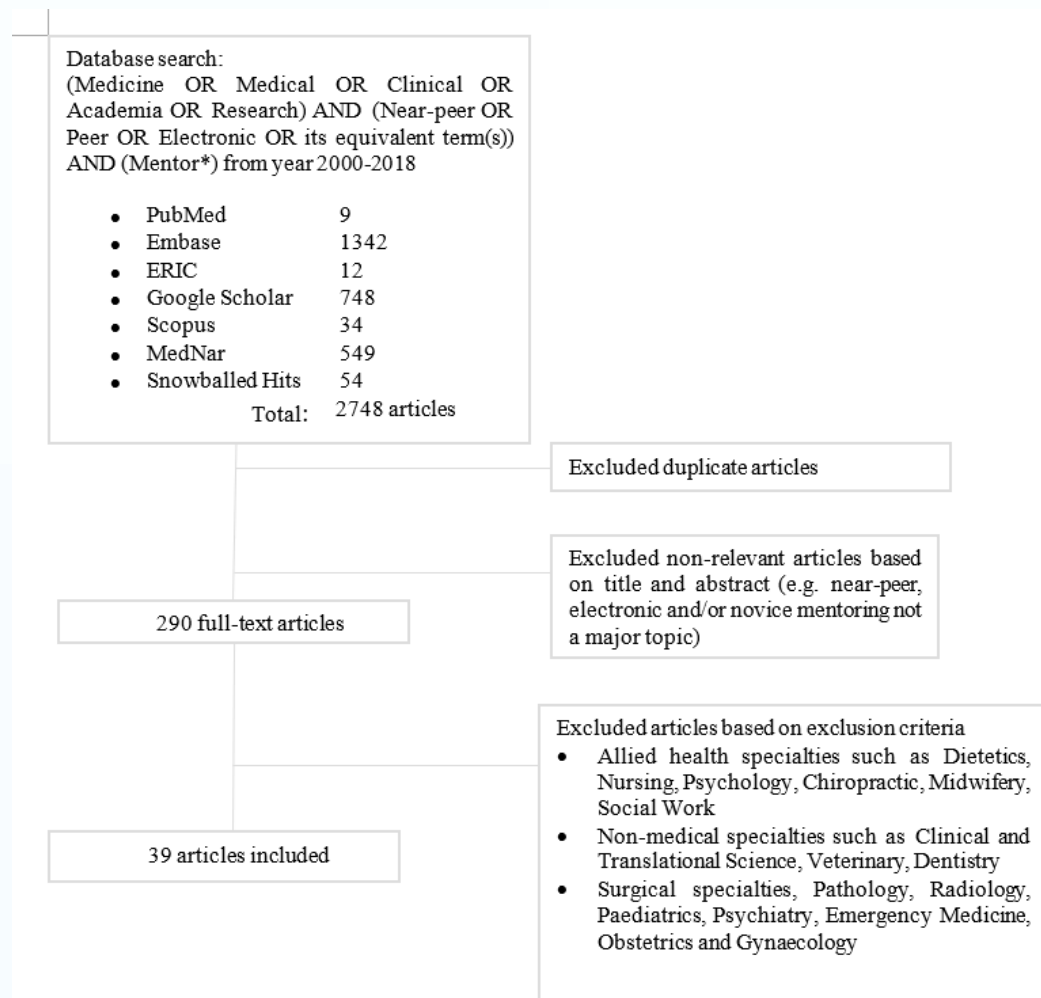
Reservations and scrutiny of such methods and processes are a result, with the process being poorly understood despite dominating the mentoring landscape in PM. Lack of clear understanding and consequent variations in practice precipitates much of the fears shrouding novice mentoring in Medicine in general, and has lead to a prevailing opinion that mentoring programs are poorly structured, ineffectively assessed and inadequately supported, besides the mentoring relationship itself having potential for abuse or failure.

However, mentoring remains a highly useful manpower training tool, with multiple programs and institutions incorporating technologies and blending their approaches (such as co-employing peer- and near-peer mentoring) to enhance the current mentoring of novices, addressing very relevant and current concerns like the need for timely assessment of mentoring needs, longitudinal and accessible support of mentees amidst a shortage of trained mentors.

Such a blended approach was termed "Combined Novice, Electronic, Peer (or near-peer) Mentoring" (ie. CNEP) by the authors, who sought to define the literature surrounding such methods that have potential to be the next form of mentoring for the coming generation.

Search Methods, Results

5 databases (PubMed, Embase, ERIC, Scopus, Google Scholar) and grey literature were reviewed by 5 independent reviewers. Levac et al. (2010)'s and Arksey and O'Malley (2005)'s methodological framework for conducting scoping reviews was adopted to systematically study the potential gaps, size and scope of available literature on Novice, Near-peer, Peer- and E-mentoring. The PRISMA-P 2015 checklist was used to develop the protocol for this study. Near-peer and peer mentoring were considered in tandem as the terms are often used interchangeably and clear definitions that would distinguish one form from the other remains elusive.

Database search:
(Medicine OR Medical OR Clinical OR Academia OR Research) AND (Near-peer OR Peer OR Electronic OR its equivalent term(s)) AND (Mentor*) from year 2000-2018

- PubMed   9
- Embase   1342
- ERIC   12
- Google Scholar 748
- Scopus   34
- MedNar   549
- Snowballed Hits 54
          Total: 2748 articles

Excluded duplicate articles

290 full-text articles

Excluded non-relevant articles based on title and abstract (e.g. near-peer, electronic and/or novice mentoring not a major topic)

Excluded articles based on exclusion criteria
- Allied health specialties such as Dietetics, Nursing, Psychology, Chiropractic, Midwifery, Social Work
- Non-medical specialties such as Clinical and Translational Science, Veterinary, Dentistry
- Surgical specialties, Pathology, Radiology, Paediatrics, Psychiatry, Emergency Medicine, Obstetrics and Gynaecology

39 articles included

Thematic Analysis and Proposed Framework

Braun and Clarke (2006)'s approach was then used to thematically analyze all the papers employed in the absence of *a priori* framework, and to circumnavigate the wide range of research methodologies employed amongst the articles included that prevent the use of statistical pooling and analysis. Themes identified were the **(a) definition, (b) characteristics, (c) indications, (d) design, (e) evaluation and (f) challenges of CNEP mentoring**.

CNEP mentoring involves informal dynamic advisory relationships between mentors, mentees, near peers, peers and the host organization, and is based on mutually beneficial and equal sharing of skills, experiences and resources within the group to support and foster each other's development. Communications in CNEP mentoring is facilitated by e-mentoring's boundaryless, egalitarian and mentee-centric approach that facilitates a flexible learning style, environment and mode of communication.

From our findings, it was clear that the indications and benefits of novice mentoring abound. Guided by holistic and longitudinal assessment of mentees, a combined novice mentoring approach played a unique role in shaping professional behavior and practice, enhancing patient safety and guiding personal and professional development. It promotes psychosocial well being via a stronger social support network and personalized mentoring culture, in turn building a collaborative learning environment.

With the goal of designing a holistic, effective and reproducible mentoring model with appropriate evaluation methods, a framework were developed from our findings:

1) That host organisations conduct a needs assessment of prevailing mentoring needs (evaluating the usefulness, accessibility of prevailing programs) with stakeholders

2) Formalize a novice mentoring structure (including goals, roles/responsibility/expectations of mentors and mentees, any near-peer or peer-mentoring aspects, the acceptable electronic mentoring means), conducting appropriate pre-program orientation for all parties

3) Establish a fair mentor-mentee matching system, taking into account areas of professional interest or intended growth

4) Design appropriate programs of training in technological competencies and information-handling (developing team-based collaborative skills, professionalism, internet security)

5) Consider making plain/clear the acceptable electronic and social platforms chosen

6) Establish Codes of Conducts, mentoring guidelines, and standards of practice

7) Ensuring mentor training and support: clearly outlining their roles for them, having programs/lectures/ small group discussions for sharing of experiences, mentee assessment

8) Provide appropriate support for mentors and mentees (technological infrastructure, ensuring "protected time', outlining reflection/consolidation points and reviewing goals)

A host of evaluation aspects and criteria have been proposed by the results, and may be adopted by various interested institutions according to their perceived needs and goals:

A) Mentee Outcomes – Academic/career progress, work performance, professional competence, personal growth

B) Mentoring Process – Matching, training, e-mentoring platform, administrative support

C) Program Influence – Uptake, participation, change in knowledge/skills/attitudes/behaviors, evolving needs, differing approaches, communication and collaboration

D) Assessment Methods – Reducing limitations of self-reporting biases, improving feedback process, evaluating validity of tools used

E) Evaluating Mentoring Relationship – Evolving frequency of communication/degree of participation, relational dynamics and interactions among mentors and mentees when providing emotional support and sharing academic and professional advice

However, challenges remain, including potential for unprofessional mentoring malpractice, confidentiality breaches and social vulnerability due to lack of protected mentoring time as a result of electronic communications.

Furthermore, there remains a lack of validated mentoring assessment tools for e-mentoring, near peer, and peer mentoring. All of these challenges and gaps provide a possible direction for future research.