



Literature Review on Clinical Mentoring and Programmatic Support

Background

Definitions of Clinical Mentoring

Historically, clinical mentoring was integrated into a broader definition of mentoring: “*Mentoring...is a teaching-learning process acquired through personal experience within a one-to-one, reciprocal, career development relationship between two individuals diverse in age, personality, life cycle, professional status, and/or credential*” (Stewart & Kruger, 1996). This definition comes out of an academic mentoring model (Pierpauli, 2011). In recent years, as more health-care systems and those invested in improving public health outcomes have shifted to quality improvement initiatives, clinical mentoring is being redefined and gaining a level of importance in improving clinical and other relevant outcomes. New models are being created, some of which are tailored to a specific skill set or objective (Franzblau, Kotsis & Chung, 2013). A more general way of describing mentoring that can be used for a variety of models and contexts is: “*Mentoring is regarded as involving a voluntary and mutually beneficial relationship in which one person is experienced and knowledgeable (mentor) who supports the maturation of a less-experienced person (mentee)*” (Siu & Sivan, 2011).

Mentoring is often defined slightly differently in diverse fields and by different organizations (Freeman, 2000), and even by different intervention studies. In the nursing field, the term “preceptor” is often used instead of “mentor.” Those participating in mentoring programs might have different expectations of mentors, as was documented in one study (Giroit & Rickaby, 2008). Other health system interventions, such as supportive supervision and clinical supervision, have components of clinical mentoring. What some of the literature refers to as clinical mentoring might more accurately be called training, given that key aspects of mentoring, such as coaching and self-reflection, are absent.

One emerging theme in the literature is that clinical mentoring should be formalized and structured (Overkeem et al., 2012; Keyser, et al., 2012; Nick et al., 2012; Bickel & Rosenthal, 2011.) In some cases, mentors were relieved of direct patient care to focus on mentoring (Burritt, Wallace, Steckel & Hunter, 2007). In some recent programs that were shown to be effective, mentors had defined roles and supported multiple clinicians and facilities using an outreach model (Anatole et al., 2013; Fatti et al., 2013; Workneh et al., 2012).

The Mentoring Process

Evidence

A systematic review by DeWolfe et al. (2010) of 47 studies, culled from 7,162 citations, on nurse preceptor (mentor) interventions found that students need to be provided with activities to assess their learning needs and develop learning objectives and plans before working with a mentor.

One study found that providers did not perceive any difference in quality between mentors' written versus oral feedback (Elnicki, Layne, Ogden & Morris, 1998); the "no feedback" option was not tested for comparison.

There are many different mentoring models. Several studies show that a multi-faceted approach can contribute to improved provider performance that translates into better patient outcomes. A systematic review of mentoring programs for physicians in academic medicine identified seven models:

- Dyad: Pairing a mentee with a more experienced or senior mentor
- Peer: Mentee is paired with a mentor of similar rank (for example, a colleague close in academic rank to the mentee)
- Facilitated peer: Extends the time and skill of a few mentors who may have limited availability but are able to oversee a large number of mentees at one time.
- Speed: One-time event in which mentees and mentors are paired together for ten minutes at a time to initiate mentoring relationships
- Functional: When a mentor is paired with a mentee to share guidance on a specific project
- Group: Mentor-facilitated group discussion (for example, at a professional conference)
- Distance: Collaboration of a mentee with a mentor from another institution

The authors also identified seven potential components of a formal mentoring program:

- Mentor preparation: Mentor training, typically either by providing books and manuals on mentoring or by sponsoring training through workshops and seminars
- Planning committees: Individuals who oversee the mentoring program (may include faculty, senior department officials, etc.)
- Mentor-mentee contracts: Agreement between mentor and mentee that is a sign of commitment between the parties and outlines the goals of the relationship
- Mentor-mentee pairing: Allowing mentees to choose their mentors often allows for "equity" in the mentoring and pairing process
- Mentoring activities: Regular meetings between the mentor and the mentee is the most common mentoring activity. Other possible activities include guest speakers and online communications.
- Formal curricula: Training materials to facilitate the development of the mentor-mentee relationship
- Program funding: Institutional support for the mentoring program; funds may come from internal or external sources

(Kashiwagi, Varkey & Cook, 2013).

There is wide variability in the length of time of a clinical mentoring relationship.

DeWolfe et al.'s (2010) review found that mentors' contributions should be acknowledged and rewarded, to encourage them and other mentors to participate.

Recommendations

Some recent studies show that combining traditional clinical mentoring methods with additional provider support strategies can improve patient outcomes (Anatole et al. 2013). Some of the traditional methods include:

- Side-by-side mentoring (during clinical practice)
- Building a trusting relationship
- Modeling professional behavior
- Providing immediate and supportive feedback

Some additional strategies include:

- Group teaching sessions
- Clinical presentations
- Case discussions
- Skills demonstrations
- Review of documentation practices
- Group mentoring on quality improvement

In a study by Overkeem et al., (2012), mentors helped specialists interpret the feedback they received to increase their acceptance and integration of the feedback. They found that the following mentoring strategies assisted specialists in integrating feedback:

- Collating and contrasting information
- Posing reflective questions
- Goal setting

Mentors' Characteristics and Skills

Evidence

Studies show that characteristics and skills of effective mentors include:

- Being knowledgeable
- Being respected in their field
- Being responsive and available to providers
- Having interest in the mentoring relationship
- Being knowledgeable about providers' potential and capabilities
- Being a role model
- Motivating providers to challenge themselves in appropriate ways
- Advocating for providers
- Being an effective listener
- The ability to give positive as well as negative feedback
- Having caring personal relationships
- Sharing their passion and inspiration

- Supporting and guiding mentees' self-discovery
- Helping the mentee feel part of a community

(Jackson et al., 2003; Levy et al., 2004; Benson et al., 2002; Eller, Lev &Feurer., 2013; Pierpaoli, 2011; Straus, Johnson, Marquez &Feldman, 2013; Ferguson, 2011; Kalen, Ponzer & Silen; 2012).

In the study where specialists were paired with mentors to help them interpret feedback (Overkeem et al., 2012), the authors call for more research on gender and mentoring, stating that many doctors do not actively seek a mentor and that women have more trouble finding one. Bickel & Rosenthal (2011) explore the mentoring relationship and how to find common ground when an “undiscussable” issue arises between academic medicine mentors and their mentees. They cite several studies that found that women gain less benefit from these mentorships.

Jackson et al. found that providers did not rate mentors of a different race or gender as less effective (2003). However, differences in ethnicity, language, gender, and generation may interfere with the development of the relationship.

They also examine generational differences, including how Generation X and Millennials prioritize a work life balance and blend work into their overall lives. The way in which they do this can be at odds with senior staff in the mentoring role. Their conclusions point back to the need to create more structure around mentoring programs.

Recommendations

In cases where these differences between mentors and mentees are more pronounced, the authors recommend creating safety, helping them raise sensitive issues, and noting assumptions and emotions. It is also recommend that mentors and mentees focus on “what they share” and discuss shared fears and worries (Bickel & Rosenthal, 2011).

Mentor Training

Evidence

Mentors who receive an orientation or training report feeling more confident providing mentoring (Aagaard, Teherani & Irby, 2004; Irby, Aagaard & Teherani, 2004; Jinks & Williams, 1994).

Recent research demonstrates that mentors benefit from preparation and training on their role (Overkeem et al., 2012).

Al-Hussami et al (2011) found that participating in a preceptor training program increased preceptors' knowledge of preceptorships and confidence in their abilities, which is essential for successful student outcomes. Similarly, one study in rural Rwanda looked at the benefits of investing in clinical mentoring training to improve health care delivery among front-line nursing staff at regional health centers. The study saw improvements in health systems, nurses'

adherence to clinical protocols and their performance in four other clinical domains. This program used the World Health Organization (WHO) mentoring guidelines to recruit mentors, included a review of resumes among nurses with a post-secondary nursing degree and several years of experience and formal training in their clinical area. These mentors received specialized training in both a specialized clinical area as well as in clinical mentoring. Mentors also received ongoing training and coaching in mentoring techniques (Anatole et al., 2013).

Mentors need support to not only develop mentoring skills but also to manage a mentee who is struggling (McLaren et al., 2013). Mentors may feel uncomfortable providing negative feedback to a provider and “fail to fail” them or be overly critical. They need be trained to handle the personal and emotional aspects of mentoring when the provider is not performing well (Duffy, 2003).

Recommendations

Mentors’ preparation should include:

- Information on how to help mentees set personal goals and develop communication
- Critical thinking
- Ethical decisionmaking skills
- Assessment of learning outcomes
- Provision of feedback
- Helping mentees with particular problems
(DeWolfe et al., 2010)

Demonstration scenarios (live and videotaped) and role plays have been found to be effective activities for training mentors and more effective than merely discussing a case study (Connor, Bynoe, Redfern, Pokora & Clarke, 2000; Sloan & McMillan, 2003). In Connor et al., the highest-ranked skill development methods in terms of usefulness were, in descending order:

- Practicing skills in small groups
- Talking about real issues in skills training groups
- Receiving feedback about skills from facilitators in groups
- Learning how to move an issue to a positive outcome

The Effect of Mentoring

Clinical mentoring has been shown to be effective at various points in a health-care provider’s career, although much of the literature focuses on the beginning stages.

Mentoring is found to increase the mentee’s self-efficacy in successfully taking on a new role and to increase their ability in fully integrating into the profession (Siu & Sivan, 2011). Mentoring has also been shown to be useful for existing health-care professionals, including those learning a new or specific skill set.

In academic and clinical settings, mentoring has been found to be an effective way to improve:

- Job satisfaction, career potential and employee retention (Sandau et al., 2011; Shermont & Krepcio, 2006; Almada et al., 2004; Benson et al., 2002; Wallen et al., 2010)
- Clinical performance (Bambling, 2006; Anatole et al., 2013; Burritt et al., 2007; Workneh et al., 2012)
- Patient satisfaction (Cope et al., 1986)
- Research skills (Palepu et al., 1998)
- Self-reported productivity in both mentored providers and mentors (Benson et al., 2002)
- Knowledge of clinical teachings (Al-Hussami et al., 2011)
- Integration into the workplace and knowledge of organizational culture (Ferguson, 2011)
- Trust and rapport (Phillips & Leggat, 2012)
- Research and patient care (Illes et al., 2007, noted in Kashiwagi, Varkey & Cook, 2013)

Data from one study examining patient quality of care and fiscal outcomes using a clinical mentor model for nursing staff in an acute care facility demonstrated improvements in clinical judgment and reasoning and patient outcomes. Clinical outcome data included patient falls, pressure ulcers, length of stay and failure to rescue. Additionally, this study relieved seasoned, proficient nurses of direct patient care to assume clinical mentor roles, which resulted in considerable cost-savings for the facility (Burritt, 2007).

A provider in a study by Benson, Morahan, Sachdeva & Richman (2002) said:
“Surprised, really didn’t seem to be a major investment or event, but psychologically yielded a lot of benefits—having someone who understands, is non-judgmental, interested in your goals and reassuring and reconfirming those goals.”

An emerging theme in recent clinical mentoring programs, especially ones that include a quality improvement focus at the facility level, is that the mentors are very effective in addressing the smaller but significant changes that are necessary to reach (clinical) goals (Fatti et al., 2013).

Additionally, there is significant evidence that quality improvement, which includes increased provider performance, may be attained with limited resources when existing staff are supported and mentored (Fatti et al., 2013; Workneh et al., 2013).

A retrospective study (Siu & Sivan, 2011) focused on the rare topic of mentoring psychiatric nurses using an interpersonal process to bring about positive health changes in their clients. The study claims that the mentoring relationship helps the psychiatric nurses perform better and includes two forms of learning: the therapeutic use of self in psychiatric nursing and the learning to become caring.

Mentoring with Dual Focus of Improving Clinical Skills and Service Delivery

Some clinical mentor training programs also focus on improving how a health-care facility functions and offers care.

Fatti et al., (2013) engaged in a study with a large sample size showing that quality nurse mentors in South Africa successfully built staff capacity and clinical management skills to

prevent mother-to-child transmission of HIV. They used a data-driven approach to identify non-adherence to the cascade and the outcome data showed a substantial decrease in HIV transmission.

A health systems strengthening project across five African countries included a WHO building block component of supportive supervision or mentoring as a means to bridge the gap between actual and achievable practice (Hirschhorn et al. 2013). In Zambia, on-site clinical mentoring of health care workers is among the core essentials of the intervention. Automatically generated performance indicators are used to support data utilization which has been shown to improve the quality of care provided (Hirschhorn et al. 2013). As part of this same project, at monthly meetings in Rwanda, mentors received continued training and coaching in both mentoring techniques and in systems-based quality improvement and periodic on-site technical assistance from experts (Anatole et al., 2013; Hirschhorn et al. 2013).

Mentoring Improves Provider Performance

There is a growing body of evidence that new clinical mentoring models can increase provider performance in various contexts. Examples include:

Workneh et al., (2013) demonstrated in Botswana that clinical mentoring by providers skilled in HIV management helps scale-up antiretroviral treatment in Africa and improve quality of care in rural areas for HIV infected children. Previously this kind of care could only be accessed in urban settings. Side-by-side mentoring during clinical practice focusing on skills and confidence-building resulted in statistically significant or substantial improvements on six clinical indicators.

Clinical “active” mentoring during the initial simulation-based training period of a surgical procedure (flexible ureteroscopy) is reported to be useful for faster initial skill acquisition and prevent poor outcomes during patient surgeries later (Ganesamoni et al., 2012). An intensive mentor-initiated approach to surgical training (laparoscopic radical prostatectomy) has also been shown to decrease the learning curve (Fabrizio, Turek & Schellhammer, 2003).

An evaluation of a pediatric occupational therapy mentorship program for both new and experienced therapists showed significant pre-post changes for several outcome measures, including clinical skills (King, Tam, Fay, Pilkington, Servais & Petrosian, 2011).

Evaluation of the Quality Nurse Mentor program in South Africa, which focused on prevention of mother-to-child HIV transmission (PMTCT), has shown that putting supervision with a mentoring approach in place can lead to improved care (Fatti et al., 2013). In a related study (Grimwood, Fatti, Mothibi, Eley & Jackson, 2012) where the Quality Nurse Mentor program was expanded, PMTCT outcomes were analyzed at 58 primary- and secondary-level antenatal facilities across seven high-HIV burden sub-districts in three provinces over 18 months. Early infant rates of HIV decreased by 75 percent and reduced by 65 percent at 18 months of age.

A training program for Clinical Nurse Mentors increased adherence to national clinical protocols in four clinical domains in South Africa (Anatole, 2013).

A clinical mentor model was used in a large acute-care facility to try to close the expertise gap between many inexperienced nurses and a few senior staff (Burritt et al., 2007). Clinical outcome data show statistically significant improvements on most measures and high-level improvements on the others. Only 57 percent of the clinical mentor positions were filled, yet strong results were achieved while also reducing costs significantly.

Areas for Further Research

The literature indicates that clinical mentoring programs will continue to be reshaped for various purposes and objectives. From a clinical skills perspective, clinical mentoring models will likely continue to:

- Improve skill acquisition for new providers beginning their careers
- Bring evidence-based practices to existing providers in a helpful, meaningful way
- Close the gap within facilities and health care systems between more and less experienced providers
- Spread cost-efficient strategies related to quality improvement indicators to low-resource settings

For programs such as in Brantuo et al., (2014) where clinical mentoring is one component of a larger training and support program for providers with goals around a specific skill set, it would be helpful to better understand what improvements are specifically related to mentorship visits.

More research needs to be conducted to better understand which models of clinical mentoring improve provider performance and patient outcomes in various settings. Emerging research shows that a structured clinical mentoring program where mentors are trained and supported to assist health care providers in clinical practices and make improvements in the overall systems in which they work lead to effective clinical outcomes. Growing evidence suggests that various models of clinical mentoring help health-care providers feel both supported and held accountable, leading to improved quality of care.

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