

# **A Critical Review of Outcomes of Peer Group Mentoring and Elements Influencing its Success and Application to Student Placement Supervisors**

Gillian Nisbet\*  
*The University of Sydney, Australia*

Lindy McAllister  
*The University of Sydney, Australia*

## **Abstract**

Within the mentoring literature, peer group mentoring is emerging as an alternative approach to the traditional one-on-one experienced mentor-novice mentee model. The aim of this study was to examine the evidence base for peer group mentoring with a view to developing a sustainable peer group mentoring framework specifically for student placement supervisors within both the health and community sectors. A literature review was undertaken to determine models of peer group mentoring, elements contributing to their success and reported outcomes. The search strategy was intentionally broad to include papers outside of the health and community sectors. Eleven papers were located that met the inclusion criteria. Models of peer group mentoring broadly fell under three categories: peer led; experienced facilitator present with an active role; and experienced facilitator present in a supportive role. The success of peer group mentoring was influenced by structural elements of the programme, a focus on relationship building, and the learning environment. Outcomes included personal benefits to participants, educational gains, relationship development and productivity improvements. Based on this review, peer group mentoring appears to offer a novel approach to effectively and efficiently supporting and developing our student placement supervisors, ensuring quality learning experiences for our students.

**Keywords:** group mentoring; peer mentoring; student supervisors

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\*Corresponding Author: Gillian Nisbet, C43J - J Block Cumberland Campus, The University of Sydney, PO Box 170, Lidcombe, NSW 1825 Australia *Email:* gillian.nisbet@sydney.edu.au

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## Introduction

Within healthcare and community settings, the quality of student learning on placement is influenced by the quality of their supervision ([Health Workforce Australia 2011](#), [Warne et al. 2010](#)). This is the case for both uniprofessional and interprofessional student placements ([Health Workforce Australia 2013](#)). As such, many universities and training institutions run workshops to up-skill and develop their student placement supervisors. However, the ongoing day-to-day, week-to-week support can be lacking ([McAllister and Lincoln 2004](#)). Opportunities to translate learning gained from workshops into one's practice in a reflective, supportive and developmental manner is largely ad hoc ([Higgs and McAllister 2005](#)). Skill development in giving and receiving feedback can also be limited ([McAllister and Lincoln 2004](#)). Mentoring may help reduce the ad hoc learning and provide more structure in applying learning from workshops. This review focuses specifically on peer group mentoring (PGM) as a potential means for better supporting and developing student placement supervisors, that is, the professional staff directly involved in, and responsible for, the teaching and learning of students during the placement component of their degree programme. Although various terms are used across professions ([Rose and Best 2005](#)), this broad definition encompasses medicine, nursing and the allied health disciplines.

While mentoring programmes have been utilized across a range of community service, health, education and corporate settings, their use to support, guide and develop student placement supervisors is less common.

We define mentoring as a voluntary professional relationship based on mutual respect and agreed expectations that is mutually valuable to all involved and includes personal and professional development and growth, career development and support ([Fawcett 2002](#), [Heartfield and Gibson 2005](#)). Mentors act as 'critical friends' in encouraging reflection to achieve success ([Costa and Kallick 1993: 49](#)).

Traditionally, mentoring has taken the form of a more experienced mentor 'mentoring' a more junior or novice mentee, often referred to as the protégé ([Haggard et al. 2011](#)). In traditional mentoring, mentoring is viewed as a personal, helping relationship between mentor and mentee designed to support and professionally develop the mentee ([Ehrich, Tennent, and Hansford 2002](#)). Benefits of this form of mentoring are well documented. Mentees report increased support, confidence, career affirmation and skill development ([Ehrich, Hansford, and Tennent 2004](#)). Mentors report increased collegiality, reflection, personal satisfaction and interpersonal skill development ([Ehrich, Hansford, and Tennent 2004](#)). However, mismatches between mentee and mentor personalities ([Moss, Teshima, and Leszcz 2008](#), [White, Brannan, and Wilson 2010](#), [Wilson, Brannan, and White 2010](#)), differences in understanding and expectations of the mentoring relationship and role ([Jacobson and Sherrod 2012](#)), power differentials ([Freeman 2000](#)), mentor experience, and time constraints ([Hubbard et al. 2010](#)) can impact on the success and sustainability of the mentoring programme.

An alternative approach to the one-to-one mentor-mentee model is group mentoring whereby group members cooperatively and collaboratively support and professionally develop each other within the mentoring group ([Goodyear 2006](#)). This approach draws from the practice supervision literature where group supervision is put forward as an effective way of making best use of scarce funding and time resources, breaking down professional barriers through interprofessional group composition, and encouraging a sharing of perspectives and learning from each other ([Borders 1991](#), [Dilworth et al. 2013](#), [Proctor 2008](#)).

A recent review of the theoretical basis of and research on group mentoring ([Huizing 2012](#)) proposed a typology of group mentoring: one mentee to many mentors; many mentees to one mentor; many-to-many mentoring; and PGM. The last two differed in that the many-to-many model identified two or more people within the group that took the role of the mentor for the life of the group. In contrast, PGM was defined as the mentor role shifting within the group. All in the group had the role of mentor or mentee at various times. [Huizing \(2012\)](#) concluded that, while benefits between the PGM and many-to-many model were similar, the many-to-many model offered most promise because the dedicated mentor role assisted the group to stay

more focused. However, this potentially poses challenges for the longevity and sustainability of mentoring groups and does not allow for the development of co-mentoring skills in peers. A more appropriate model for student placement supervisors might be a combination of the two: where experienced facilitators provide the scaffolding within a PGM framework.

The purpose of this current literature review was to review the literature specifically on the processes and outcomes of peer group mentoring with and without more experienced members providing advice and support. It aimed to scope current understanding of PGM as a strategy for supporting and developing qualified professionals with the view to developing a sustainable PGM framework specifically for student placement supervisors within both the health and community sectors.

## **Review methods**

We conducted a review of the literature by keyword searches in The Web of Science®, the Education Resources Information Center (ERIC), PsycINFO®, OVID®, and Google Scholar databases from earliest listed date of the database to June 2014. Keywords included: co-mentoring, peer mentoring, collaborative mentoring, group mentoring. The search was limited to English language papers. We deliberately kept our context broad to capture papers outside of the health and community sectors, as we wanted to ensure the opportunity to learn from non-health settings. Furthermore, we anticipated that this approach would still identify any health related programmes.

The original search identified more than 600 papers, reviews and commentaries. The first author (GN) reviewed all abstracts to identify papers that helped answer the following questions:

- 1) What models of PGM for staff members are currently reported in the literature?
- 2) What elements contribute to an effective staff PGM programme?
- 3) What are the outcomes of PGM programmes involving staff members?

We were inclusive of all research approaches including mixed methods approaches. We took a broad definition of 'outcomes' to include perceived or actual benefits to the individual as well as more objective measures such as productivity gains. Papers were excluded if the abstract did not describe empirical research outlining the model used, process elements and outcomes of peer group mentoring. Where there was uncertainty from the abstract, the entire paper was reviewed. Papers were excluded if it was unclear that peers mentored each other; they described a mentor-mentee hierarchical mentoring; or they described co-mentoring between two peers. We excluded papers: where the aim of the programme described was not related to any of the aspects of mentoring outlined earlier, namely personal/professional development, support and/or career development; where participants were also part of a one-to-one mentoring relationship; and that involved students as participants.

Papers were read and interrogated in relation to the three key questions above. Models were examined looking for distinguishing factors. An iterative process was then followed grouping papers by distinguishing factors until a grouping was reached that could be differentiated from the other groupings. Papers were then re-examined to determine which type of model they fell within. Papers were also examined for mention of elements that contributed to the success or otherwise of their PGM programme. These were then thematically grouped into categories. Papers were re-examined to confirm which category they fell within. The above processes were performed by the first author with final categorization discussed with the second author. Where there was disagreement the paper was re-examined. The same approach was adopted for question 3 above in relation to outcomes.

## Findings

We identified 11 papers that met the above criteria, that is, outlined the model used and provided research data on processes and outcomes of peer group mentoring. Due to the low numbers of studies located, we did not further exclude any based on quality. Many of the qualitative studies failed to adequately describe the data collection process and how they analyzed their data making it difficult to establish the rigor of the study.

A summary of the studies included in the review are listed in Table 1. Publication dates ranged from 2000 - 2014 indicating the newness of outcome based research in this area. Nine studies used a qualitative approach that included open-ended questionnaires, focus groups and/or in-depth interviews. All studies were set in Australia, Canada or the United States. Participant backgrounds varied between studies and included doctors, nurses, academics from a range of disciplines, school teachers and librarians. One study included 'clinician educator' participants ([Lord et al. 2012](#)), however their role was poorly described making it difficult to compare it with student placement supervision. Five studies were set in the academic clinical setting. Three studies were targeted towards women employees. Three studies involved new or recent graduates. All but one study ([Rees and Shaw 2014](#)) involved more junior staff. Results of the review are presented under each of the review questions.

### **1. What models of peer group mentoring for staff are currently reported in the literature?**

Peer group mentoring models reported in the literature were broadly categorized under three types:

1. Peer mentoring groups – run by peers (n=2) ([Mullen 2000](#), [Rees and Shaw 2014](#));
2. Peer mentoring groups – run predominantly by experienced facilitator/ advisor (active role) (n=3) ([McCormack and West 2006](#), [Pololi et al. 2002](#), [Scott and Smith 2008](#));
3. Peer mentoring groups – run by peers, facilitator present in a supportive role (n=6) ([Darwin and Palmer 2009](#), [Files et al. 2008](#), [Jackson-Bowers, Henderson, and O'Connor 2001](#), [Lord et al. 2012](#), [Moss, Teshima, and Leszcz 2008](#), [Ritchie and Genoni 2002](#)).

Table 2 describes structural characteristics of the PGM programmes located within the literature under each of the above categories. Within and between the categories there was considerable variation in the overarching structure of the PGM programme, delivery format, and content included. Size of groups also varied but there was no consistency or obvious pattern between categories. This makes it difficult to recommend one model over another.

Peer mentoring programmes where an experienced facilitator took an active role ([McCormack and West 2006](#), [Pololi et al. 2002](#), [Scott and Smith 2008](#)) tended to be more structured compared with peer led ([Mullen 2000](#), [Rees and Shaw 2014](#)) or where the facilitator was present in a supportive role ([Darwin and Palmer 2009](#), [Files et al. 2008](#), [Jackson-Bowers, Henderson and O'Connor 2001](#), [Lord et al. 2012](#), [Moss, Teshima, and Leszcz 2008](#), [Ritchie and Genoni 2002](#)). These programmes all included a comprehensive one day education component in the form of a workshop. For example, [Pololi and colleagues' \(2002\)](#) 'collaborative mentoring programme' started with a three day workshop followed by monthly one day sessions. All participants attended as a group and all one day sessions followed a similar format: a combination of narrative writing, short lecture, role plays and facilitated discussion. [McCormack and West's \(2006\)](#) PGM programme included a workshop and retreat for all participants to begin with followed by fortnightly meetings of smaller mentoring groups. [Scott and Smith's \(2008\)](#) programme consisted of one day events every four months for all participants. These sessions included a combination of structured education sessions, dedicated time for sharing of experiences within smaller groups and reflection on practice. Not surprisingly given the substantial facilitator input, two out of three of the studies included in this category were conducted in work time (not specified in the third study). Frequency of meetings varied from meetings every two weeks to once every four months.

**Table 1: Studies included in review**

Study authors and publication date	Country of study	Study participants	Study design	Number of participants in research	Factors contributing to study quality
<a href="#">Darwin and Palmer 2009</a>	Australia	University academic staff from a range of faculties	Mixed methods: Questionnaire (e.g. satisfaction; perceived benefits) Qualitative – focus groups	Questionnaires: unspecified (20 in mentoring programme) Focus groups: 9	Method used for qualitative data analysis not described
<a href="#">Files et al. 2008</a>	USA	Female physicians working in academic medical practices	Questionnaire - self assessment survey	4	Validity and reliability of questionnaire not established
<a href="#">Jackson-Bowers, Henderson and O'Connor 2001</a>	Australia	Recent graduate librarians	Qualitative – focus groups	13 (across two focus groups)	Method used for data analysis not described
<a href="#">Lord et al. 2012</a>	USA	Junior clinician educator faculty staff (psychiatry discipline) working in university medical centre	Qualitative – interviews; observations; document analysis	6	Data analysis methods only briefly provided
<a href="#">McCormack and West 2006</a>	Australia	Female university employees (academic and general staff)	Qualitative – open ended questionnaire responses; focus groups; in-depth interviews	103 over 5 years (approximately 20 participants per year)	Qualitative methods detailed
<a href="#">Moss, Teshima, and Leszcz 2008</a>	Canada	Junior academic psychiatry staff at a teaching hospital	Qualitative – focus group	10	Data analysis methods only briefly provided
<a href="#">Mullen 2000</a>	USA	Staff working within a school and university academic staff	Qualitative – open ended questionnaire	17	Method used for data analysis not described
<a href="#">Pololi et al. 2002</a>	USA	Junior academic staff from a university medical school	Mixed methods: Quantitative – attendance rate; number of scholarly articles submitted/ accepted for publication; questionnaire (satisfaction) Qualitative – participant narratives; interviews	18	Qualitative data analysis methods only briefly provided
<a href="#">Rees and Shaw 2014</a>	USA	Female early and mid-career university academic staff	Qualitative questionnaire including an open-ended autobiographical question	8 out of 20 responses (40%)	Qualitative methods detailed
<a href="#">Ritchie and Genoni 2002</a>	Australia	New graduate librarians	Questionnaires	23 in experimental group 18 in comparative group 1 (no mentoring) 22 in comparative group 2 (one-on-one mentoring)	Validity and reliability established for only one of three questionnaire used
<a href="#">Scott and Smith 2008</a>	USA	New graduate nurses	Qualitative – focus groups	Focus group numbers unspecified (25 new graduates in mentoring programme)	Method used for data analysis not described

In contrast, the structure of the peer led sessions or where the facilitator was present in a supportive role tended to be more flexible with structure determined by the peer mentoring group rather than the facilitator. Some programmes followed a set agenda style format (e.g. [Jackson-Bowers, Henderson and O'Connor 2001](#), [Lord et al. 2012](#), [Rees and Shaw 2014](#), [Ritchie and Genoni 2002](#)) while others appeared to be more informal (e.g. [Moss, Teshima, and Leszcz 2008](#), [Mullen 2000](#)). Many occurred outside work hours (e.g. [Lord et al. 2012](#), [Moss, Teshima, and Leszcz 2008](#), [Mullen 2000](#)). Most facilitator supported groups met every one to three months ([Jackson-Bowers, Henderson and O'Connor 2001](#), [Lord et al. 2012](#), [Moss, Teshima, and Leszcz 2008](#), [Ritchie and Genoni 2002](#)) whereas the peer led groups met more frequently ([Mullen 2000](#), [Rees and Shaw 2014](#)).

**Table 2: Models of Peer Group Mentoring**

Study	Setting	Aim of programme	Format	Duration	In work time	Voluntary
<b>1. Run by peers</b>						
<a href="#">Mullen 2000</a>	School – university collaboration	Develop school leaders as researchers and university leaders as collaborators.	Biweekly meetings after school hours. Session format not described in detail.	1 year	No	Not specified
<a href="#">Rees and Shaw 2014</a>	University	Support the academic research and writing agenda of female early and mid-career academics.	Weekly 1 hour meetings. Set structure to meetings – goal oriented.	Ongoing	In lunch break	Yes
<b>2. Peer mentoring groups – run predominantly by experienced facilitator/ advisor (active role)</b>						
<a href="#">Pololi et al. 2002</a>	University	Assist junior academic medical staff with their career development.	Initial 3 day session followed by a 1 day session every month. Structured sessions with set topics.	6 months	Yes	Yes
<a href="#">McCormack and West 2006</a>	University	Assist female academic and general staff new to a university with professional autonomy and confidence, networking, career development and training opportunities.	Initial 1 day workshop followed by a two day residential retreat for all participants. Individual mentoring groups met every 2 weeks for 3 hours. Midway review of mentoring process with all participants.	1 year	Not specified	Yes
<a href="#">Scott and Smith 2008</a>	Health setting	Offer emotional support, advice and role modelling of acceptable nurse behaviours and organizational values to new graduate nurses.	One-day meetings every 4 months for all participants. Included a combination of structured and unstructured sessions. Individual support to participants as required.	1 year	Yes	No – part of larger new graduate nurse programme.
<b>3. Run by peers – experienced facilitator present in a supportive role</b>						
<a href="#">Darwin and Palmer 2009</a>	University	Support academic staff new to a university.	Meetings every 3 weeks for 2 hours. Meeting structure and content determined by individual mentoring groups. Facilitation input varied: some took a more active role; others a more supportive role.	6 months	Not specified	Yes – but some individually invited to attend

(Table 2 continued on next page)

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<a href="#">Files et al. 2008</a>	Health setting	Assist female junior medical academic staff with academic writing.	'Peer mentor' weekly – monthly meetings. Joined by 'facilitator mentors' every month for structured sessions with set topics. Facilitator mentors available between meetings as needed. Separate monthly facilitator mentor meetings.	1 year	Yes	Voluntary – but signed contract for 1 year.
<a href="#">Moss, Teshima, and Leszcz 2008</a>	Health setting	Identify and discuss key issues affecting junior faculty, improve practices and develop a greater sense of support and collegiality.	Dinner meetings every 2 months for 2 hours. Meeting format and content determined by participants. Guest speaker often invited.	1 year	No	Yes
<a href="#">Lord et al. 2012</a>	Health setting	Provide mutual support, foster accountability in working towards individual goals, encourage collaboration and professional development.	Dinner meetings every 1-3 months for 2-3 hours (Faculty funded). Lunchtime meetings added in 3 <sup>rd</sup> year of the programme. Set structure to sessions – determined by participants	4 years	No	Yes
<a href="#">Ritchie and Genoni 2002</a>	Library	Support new graduate librarians' transition into their profession.	Meetings every month for 2 hours. Set structure to sessions – determined by participants	1 year	Not specified	Yes
<a href="#">Jackson-Bowers, Henderson and O'Connor 2001</a>	Library	Support recent graduate librarians transition into their profession	Meetings every month for 2 hours. Set structure to sessions – 1 hour guest speaker followed by discussion. Topics determined by participants.	Not specified	Not specified	Yes

Content of sessions was largely related to the overall aims of the PGM programme. For example, participants in [Mullen's \(2000\)](#) PGM programme, where the aim was to strengthen ties between school professionals and university academics, shared research stories, assisted with problem solving and shared their own work experiences and understanding of the mentoring process. For [Lord and colleagues \(2012\)](#), session topics included anxiety about promotion, career direction, professional relationships, and scholarship ideas. This linked with their programme goal of professional development around accountability, promotions and educational research. Similarly, [Pololi and colleagues' \(2002\)](#) programme aim of career development was reflected in their content: team building, value clarification, career planning, negotiation, conflict resolution, oral and written presentations and gender and power issues. Thus content was context dependent.

## 2. What elements contribute to an effective staff peer group mentoring programme?

Table 3 summarizes the key elements of a successful PGM programme identified from our reviewed studies. Success elements broadly fell under three groupings: structural; relationship building; and the learning environment. However, these were not independent of each other but rather complemented each other. For example, increased frequency of meetings helped participants build trusting relationships with each other ([Lord et al. 2012](#)). The non-hierarchical relationships that formed between participants encouraged co-mentoring ([McCormack and West 2006](#), [Pololi et al. 2002](#)). Dedicated protected time, separate to the usual work schedule, helped create a safe and supportive learning environment ([Pololi et al. 2002](#)).

**Table 3: Elements of a successful peer group mentoring programme**

Elements	Study author										
	<a href="#">Darwin and Palmer 2009</a>	<a href="#">Files et al. 2008</a>	<a href="#">Jackson-Bowers, Henderson and O'Connor 2001</a>	<a href="#">Lord et al. 2012</a>	<a href="#">McCormack and West 2006</a>	<a href="#">Moss, Teshima, and Leszcz 2008</a>	<a href="#">Mullen 2000</a>	<a href="#">Pololi et al. 2002</a>	<a href="#">Rees and Shaw 2014</a>	<a href="#">Ritchie and Genoni 2002</a>	<a href="#">Scott and Smith 2008</a>
<b>Structural</b>											
Protected and regular time for meeting		√						√			
Separate meeting venue to work place								√			
Frequent meetings				√							
Having a curriculum structure/ goal setting structure		√							√		
Clarity of roles		√									
<b>Relationship building</b>											
Participants involved in programme planning						√					
Non-hierarchical				√	√			√			
Commitment by all to programme/ accountability to the group	√								√		
Focus on rapport building	√										
Collegiality/ support networks				√	√		√		√		
Diversity in group composition	√				√				√		
Informal socialisation			√								
<b>Learning environment</b>											
Safe and supportive					√			√			
Confidential	√										
Space for reflection						√					
Peer interaction and feedback/ peer learning/ co-mentoring		√			√		√	√			
Guidance by more experienced member/ facilitator				√	√	√					

√ indicates this element was mentioned in the paper.

Elements related to relationship building were identified as key to a successful peer group mentoring programme with eight out of 11 studies highlighting this as important ([Darwin and Palmer 2009](#), [Jackson-Bowers, Henderson and O'Connor 2001](#), [Lord et al. 2012](#), [McCormack and West 2006](#), [Moss, Teshima, and Leszcz 2008](#), [Mullen 2000](#), [Pololi et al. 2002](#), [Rees and Shaw 2014](#)). These elements in particular set PGM apart from the traditional one-to-one approach to mentoring: group dynamics become more relevant with PGM; getting to know each other as people rather than seniority or profession begins to take effect; diversity within the peer mentoring group adds richness to discussions; and informal interactions and socialization emerge between participants.



Seven studies considered the learning environment as being an important element for the success of PGM ([Darwin and Palmer 2009](#), [Files et al. 2008](#), [Lord et al. 2012](#), [McCormack and West 2006](#), [Moss, Teshima, and Leszcz 2008](#), [Mullen 2000](#), [Pololi et al. 2002](#)). Most commonly mentioned pertaining to this element were peer interaction and feedback (n=4). Three studies identified the importance of having a facilitator or experienced member present for guidance ([Lord et al. 2012](#), [McCormack and West 2006](#), [Moss, Teshima, and Leszcz 2008](#)). For [Moss, Teshima, and Leszcz \(2008\)](#), although the senior team member took an observer role, the group still called on his expertise, suggesting that fledgling peer mentor groups still value some initial guidance. [Lord and colleagues \(2012\)](#) suggested it is a fine balance between having a senior or external facilitator present and providing leadership, and the group itself developing this role. Critical to an external facilitator role appears to be knowing when to intervene, when to step back and how to actively engage other participants in the peer group mentoring process.

### **3. What are the outcomes of peer group mentoring programmes involving staff?**

Outcomes were often described in terms of personal benefits to participants (n=7), educational gains (n=7), relationship development (n=9) and productivity improvements (n=4) (Table 4). Apart from some productivity improvements, most of these outcomes were self reported by participants and are *perceived* benefits.

The personal benefits perceived by participants reflect the personal and professional development focus of mentoring ([Heartfield and Gibson 2005](#)). For example, personal growth occurred through identifying core values ([Pololi et al. 2002](#)) or receiving feedback ([Lord et al. 2012](#)). Professional growth occurred through career planning and career development ([Pololi et al. 2002](#)). Job satisfaction was the most commonly cited personal benefit (n=4) ([Files et al. 2008](#), [Lord et al. 2012](#), [McCormack and West 2006](#), [Pololi et al. 2002](#)). One study ([Ritchie and Genoni 2002](#)) included three comparison groups to demonstrate benefits of peer group mentoring: new graduate librarians not currently mentored; new graduate librarians receiving one-to-one mentoring; and new graduate librarians in a peer group mentoring programme. Significant differences were found between the peer mentoring group participants and both comparative groups for activities related to career development. Participants of the peer group mentoring programme reported an increased 'calling' to their profession, that is, a belief in their profession as a vocation rather than just a job and way of earning money, compared with those not receiving mentoring of any kind. However, no difference was found between groups in psychosocial development outcome measures, for example perceptions of belonging to the profession, being involved in their peer support network and their ability to apply their skills in the workplace. The authors suggest these findings may reflect the focus of participants on getting a job.

Seven papers reported educational gains. These mainly related to gains in knowledge or skills ([Files et al. 2008](#), [Moss, Teshima, and Leszcz 2008](#), [Mullen 2000](#), [Pololi et al. 2002](#)). However, three studies ([Darwin and Palmer 2009](#), [Mullen 2000](#), [Rees and Shaw 2014](#)) reported educational gains related to the PGM process itself and its focus on interactive learning from other participants. This is particularly important as it demonstrates the potential for participants to develop more generic lifelong learning skills.

Relationship developments were the most commonly reported outcomes of the peer group mentoring programmes identified in this review. This reflects the co-mentoring aspect to PGM which appeared to encourage collegiality, networking and a sense of community amongst peers ([Darwin and Palmer 2009](#), [Moss, Teshima, and Leszcz 2008](#), [Pololi et al. 2002](#), [Rees and Shaw 2014](#), [Scott and Smith 2008](#)). For one study ([McCormack and West 2006](#)) relationship benefits continued six months after the facilitated programme ended. For another ([Scott and Smith 2008](#)), participants recommended continuing to meet for a further six months after their official programme had finished. The authors concluded, that although originally set up with senior mentors providing guidance, the group evolved into a peer mentoring group where new graduate nurses mentored each other.

**Table 4: Outcomes of peer group mentoring**

Outcomes	Study author										
	<a href="#">Darwin and Palmer 2009</a>	<a href="#">Files et al. 2008</a>	<a href="#">Jackson-Bowers, Henderson and O'Connor 2001</a>	<a href="#">Lord et al. 2012</a>	<a href="#">McCormack and West 2006</a>	<a href="#">Moss, Teshima, and Leszcz 2008</a>	<a href="#">Mullen 2000</a>	<a href="#">Pololi et al. 2002</a>	<a href="#">Rees and Shaw 2014</a>	<a href="#">Ritchie and Genoni 2002</a>	<a href="#">Scott and Smith 2008</a>
<b>Personal</b>											
Clarification of participant core values								√			
More deliberate process of career planning								√			
Normalization of participant concerns						√					
Personal growth through feedback				√							
Ability to honestly share experiences and express emotions											√
Improved job/ workplace satisfaction/ job motivation		√		√	√			√			
Career enhancement/ career development					√					√	
Increased 'calling' to the profession										√	
<b>Educational</b>											
Knowledge and/or skill development		√				√	√	√			
Peer learning – learning from others in group	√						√		√		√
Confidence in co-mentoring process							√				
Confidence in academic writing/ conference presentations							√				
Role-modelling	√										
<b>Relationship</b>											
Collaborative and collegial relationships	√					√		√	√		√
Improved social connection/ friendships				√					√		
Reduced professional isolation/ sense of community	√					√	√		√		
Organization belonging/ increased professional connection to organization					√				√		√
Networking	√		√		√						
Peer support	√		√				√				
Continuation of peer group mentoring after completion of formal programme	√										

(Table 4 continued on next page)

(Table 4 continued from previous page)

Productivity											
Increased professional productivity and involvement in professional activities				√						√	
Increased accountability				√							
Increased scholarly activity		√		√					√		
Promotion		√									

√ indicates this outcome was reported in the paper

Less common were outcomes related to productivity improvements. Two studies within the academic setting ([Files et al. 2008](#), [Lord et al. 2012](#)) used numbers of publication and numbers of conference presentations as objective outcome measures, reporting improvement in both measures. However, no comparison was made to the previous year's publication record. One study ([Darwin and Palmer 2009](#)) measured success of their programme by participants' commitment to continue meeting on their own without an external facilitator on completion of the organized programme. One group succeeded in continuing to meet six months after; the other was still in the planning stage. The third group had disbanded prior to the end of the structured programme. The authors suggested that this was due to a lack of commitment to the collaborative group environment, varied motives for attending and dysfunctional group dynamics.

## Discussion

This paper, with a particular focus on outcome and process evaluation studies, has provided a timely review of the research literature on PGM to help inform the development of a PGM framework for student placement supervisors. Clearly, there are a range of models available, which for this review were categorized depending on who and how sessions were facilitated. Regardless of model used, our review suggests that effective PGM programmes are those which ensure that delivery is non-hierarchical, where collegiality is encouraged, and peer interaction and co-mentoring are built into the programme design. Furthermore, a range of positive outcomes can be achieved through PGM.

However, the limited number of papers that met the review inclusion criteria indicates the paucity of outcome related research being reported in the area of PGM. Only papers from USA, Canada, and Australia were identified. The reason for this is unclear. While more descriptive papers were located, only 11 papers met the inclusion criteria of evaluating and reporting on outcomes and processes involved in PGM. While our narrow focus on outcome related research might be considered a limitation, we contest that this inclusion criteria was an important factor in determining the effectiveness of PGM for student placement supervisors. Our specific focus on mentoring for our key word search terms might also have limited our final number of papers. While there is some overlap with other learning processes (for example, action learning sets, supervision and coaching), our focus was on a voluntary, mutually valuable relationship to facilitate personal and professional development. There is sufficient difference in terms to treat them as separate entities; hence our search focus.

We failed to locate any PGM studies specifically related to student supervision within healthcare and community settings. The closest study was that by [Lord and colleagues \(2012\)](#) with junior clinician educator faculty staff. Given our intent was to learn from the broader literature and assess its applicability to student placement supervisors; this was not considered an issue for this review. However, the relatively high inclusion of academic based PGM programmes (n=7) is of interest, possibly reflecting the outcome-based research focus of the academic environment.

While studies were not excluded on the basis of quality, the quality of reviewed studies varied considerably. All but two of the qualitative studies included in this review ([McCormack and West 2006](#), [Rees and Shaw 2014](#)) failed to adequately report their methodology raising questions about the rigor of the research. In particular data analysis methodology was poorly described. Quantitative data was generally based on self-reported questionnaire data rather than objective measures. Only [Ritchie and Genoni \(2002\)](#) used a validated questionnaire – and this was only for one component of their study (the two other questionnaires used were developed by the authors). Only two studies ([Files et al. 2008](#), [Pololi et al. 2002](#)) considered more objective publication data.

Comparison between studies was difficult due to limited descriptions of the models. For example, details were not always provided regarding meeting place, whether it was within or outside work times, structure of sessions or attendance rates. Moreover, it was often unclear how the process of reflection was encouraged, with only one study identifying space for reflection as an element of a successful PGM programme. This is surprising given the importance of reflection in the mentoring process ([Barnett 1995](#), [Danielson 2002](#), [Weasmer and Woods 2003](#)).

Despite the limitations of the reviewed studies, the findings offer promise for the role of PGM as an alternative to one-on-one mentoring. Results suggest no major drawbacks of PGM. Many positive outcomes were identified, the most common being improved job satisfaction, knowledge and skill development, peer learning and collaborative relationship building. However, comparatively few studies reported on productivity gains. Given the resource constraints many professions, including healthcare operate within, this should be an area of future research.

Most studies in this review incorporated a more experienced facilitator. However, their level of involvement in the mentoring sessions varied from active facilitation to more of an advisor and support role. Critical to an external facilitator role appears to be knowing when to intervene, when to step back and how to actively engage other participants in the peer group mentoring process. Given mentoring is a developmental process, we suggest the supportive role approach to facilitation is preferable to always leading the group as it fosters the development of participants' group process and mentoring skills ([Proctor 2008](#)). It is also likely to be more sustainable in the long term with durable relationships continuing outside of the PGM programme.

## **Implications for student supervision**

The intention of this review was to inform development of a PGM framework for student placement supervisors within the health and community sectors. Based on this review, we suggest PGM could address many of the limitations of existing preparation and support programmes for supervisors. A facilitated model of PGM whereby student placement supervisors come together for a workshop to orientate them to the processes of PGM, followed by the formation of smaller peer mentoring groups (e.g. 3-5 members) to independently run their own mentoring sessions seems feasible. External facilitators for the independently run mentoring groups could be available for support and guidance as needed. Participants and facilitators could come together at regular intervals to 'touch base' as to how the mentoring process is progressing. This model combines the strengths of each of the models identified in this review. Furthermore, it recognizes the benefits of PGM in developing supervisors' facilitation and co-mentoring skills – both valuable skills when supervising students.

We are unable to categorically recommend from this review if PGM for student placement supervisors should or should not be conducted in work time as both options appeared to offer benefits in the studies reviewed. Philosophically it could be argued that if organizations truly valued the ongoing skill development of their workforce, PGM sessions for student placement supervisors should be in work time. However, it could also be argued that, as health professionals we are responsible for our own professional development as part of lifelong

learning. This issue needs to be considered prior to introducing any supervisor PGM programme.

An associated challenge with implementing a PGM programme specifically for student placement supervisors is the perceived value and recognition given to student supervision generally. Unlike many of the participant job roles in the studies included in this review, student placement supervision is still largely an under-valued role compared with patient/client care and research ([Rodger et al. 2008](#)). This furthermore emphasizes the need for organization support prior to implementing a PGM programme for student placement supervisors.

Despite the above considerations, we anticipate that the outcomes identified in this review are valuable and transferable to student placement supervisors. For example, a PGM programme for student placement supervisors could build the personal and professional knowledge and skills needed for supervision, particularly around difficult situations such as managing poorly performing students. Peer group mentoring could create supportive relationships between student placement supervisors, and increase productivity, engagement, job satisfaction and leadership in the role. While not specifically identified in this review, it may also help strengthen motivation in the new role and develop identity as a supervisor as people move into the new role of supervisor.

Peer group mentoring programmes for student placement supervisors need not be limited to profession specific groupings. Rather, we recommend mixed profession groups allowing for the sharing of experiences, perspectives and knowledge to enhance interprofessional learning. Four of the studies in this review support this view ([Darwin and Palmer 2009](#), [McCormack and West 2006](#), [Mullen 2000](#), [Rees and Shaw 2014](#)). Including colleagues involved with interprofessional learning and supervision would further add to the richness of the learning: while some supervision issues are the same, discussion of interprofessional supervision issues provides an opportunity for all participants to develop insight into specific challenges encountered with interprofessional supervision. For example, dealing with gaps in one's content knowledge across the professions.

## **Conclusion**

The elements identified for a successful PGM programme and the resulting benefits reported in the studies reviewed are likely applicable to other contexts such as student supervision. We suggest the results of this review can inform the development of a PGM framework for student placement supervisors. However, further research, ensuring rigorous study design, is required to build on the limited evidence base currently available and to test the applicability of PGM to student supervision. Peer group mentoring offers another mechanism to ensure our student placement supervisors grow in confidence and ability in providing quality learning experiences for our students. Furthermore it offers promise as an effective and efficient means of supporting and developing our supervisors.

## **Declaration of Interest**

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