Addressing the hiatus of learning incentives for prevocational doctors: continuing medical education points for interns

Allyson J Agnew and Carl J O'Kane

ABSTRACT

Objectives: To describe the development and uptake of a new self-directed learning program for interns, and to evaluate interns' attitudes towards the program.

Design, setting and participants: Using design-based research methodologies, a facility education program was developed to provide flexible learning options, complement the situated learning that occurs at the bedside and foster the development of self-directed and self-regulated learning behaviour. From 2008 to 2010, interns at a large regional Australian hospital (Townsville Hospital) were required to accrue a minimum 100 continuing medical education (CME) points.

Main outcome measures: Mean number of CME points accrued per intern and attitudes of interns towards the CME points system.

Results: A total of 30, 39 and 59 interns participated in the program during 2008, 2009 and 2010, respectively. The mean number of points accrued by interns increased from 114 points (range, 60–168; median, 113) in 2008 to 132 points (range, 85–298; median, 127) in 2010. There was a corresponding decrease in failure to accrue 100 points, from 20% of interns (6/30) in 2008 to 8% of interns (5/59) in 2010. Evaluations showed that the majority of interns (surveyed at the end of 2009 [*n* = 22] and 2010 [*n* = 46]) liked the flexible learning options of the CME points system, and also felt that the professional development helped them gain better knowledge and skills and develop as a clinician. However, about half of them felt pressured to accrue points.

Conclusions: A CME points system is acceptable to and used by interns. This system has the flexibility to be expanded to other junior doctor years and implemented in all Australian facilities to ensure that self-directed and self-regulated learning occurs across the entire prevocational continuum.

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Communities expect all health care professionals to maintain their knowledge and skills. While universities and specialty colleges drive learning through examinations, there are no such incentives to drive prevocational doctors, including interns, to continue learning. New accreditation standards set by the Postgraduate Medical Education Council of Queensland (PMCQ) define a number of intern education and training requirements. These requirements are mandates on hospitals to provide ongoing education programs over and above the situated learning that occurs in clinical settings. This education occurs via facility education programs (FEPs) that are facilitated by local medical education units (MEUs). There is, however, no mandate for interns to participate in FEPs, and there are no consequences if interns do not attend the FEPs offered. In addition, the Medical Board of Australia has no minimum attendance or participation requirement that affects the progression of interns to general registration.

This hiatus of learning incentives may be affecting junior doctors' engagement in the learning opportunities provided. In 2007, an FEP evaluation conducted by the MEU of Townsville Hospital (a large regional hospital in Queensland) showed that FEP attendance was poor, even with an arbitrary setting of 80% minimum attendance. The mean attendance rate for the 32 interns was 66% (range, 51%–87%), and evaluation of attendance during previous years showed 2007 was not an atypical year (unpublished data) (Box 1). Feedback provided by interns in their 2007 end-of-term evaluations indicated that the biggest barrier to their attendance at the FEP activities was a heavy workload and a corresponding commitment to maintaining patient care. This made attendance difficult, despite these sessions occurring during "protected time" (unpublished data). This is consistent with previous research findings which have shown that junior doctors find it difficult to choose between patient care, work demands and their own professional development (PD).[1]

Given the lack of mandatory participation requirements, the MEU identified development of an innovative FEP as a possible means of providing incentives for interns to overcome the barriers to participation. The design brief used stated that this FEP should:

- provide flexible learning options that incorporate adult learning principles;[2]
- complement the situated learning that occurs in the clinical environment;[3]
- foster the development of learning behaviour such as self-directed[4] and self-regulated learning.[5]

METHODS

Formal ethics approval was obtained from the Townsville Human Research Ethics Committee to undertake and publish a low-risk study to address the issues identified. Design-based research methodologies[6] were used, because the study focus was on the development, implementation and evaluation of a new structure for the FEP. Interns' participation in learning activities was used to evaluate the effectiveness of this new structure.

To meet the design brief, the MEU at Townsville Hospital developed a new FEP for 2008 around a framework of four key PD domains — education sessions, skills workshops, presentations and research. The pre-existing FEP, which consisted of weekly face-to-face education sessions, had been developed by the MEU in 2007 to address components of the Australian Curriculum Framework for Junior Doctors.[7] This was expanded to include skills workshops, formal presentations of professional knowledge (eg, at conferences, grand rounds or other teaching sessions) and research (eg, audits, quality assurance activities and peer-reviewed publications). In addition, an online learning portal with the potential to provide more flexible learning options was developed.

Once this framework of PD was constructed, a continuing medical education (CME) points system for interns was developed. Points were assigned by the MEU to reflect the amount of time interns would spend on each individual learning activity. A yearly minimum of 100 CME points was

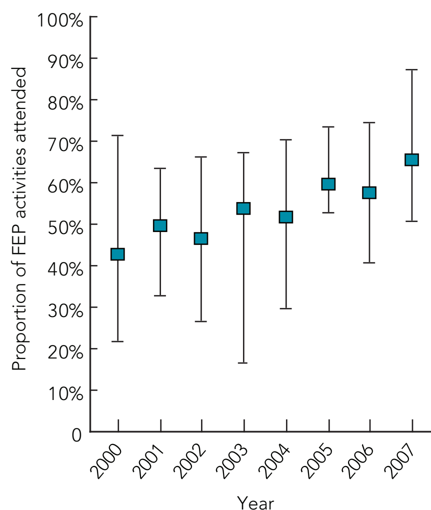
set as the target for interns to accrue. This equated to about 80% of the total points allocated to the 42 face-to-face education sessions offered in previous years (ie, 80% × 42 weeks × 3 points = 100.8 points). To make this target easier to achieve, interns could accrue points from any one PD domain or a combination of PD domains.

From 2008 to 2010, the incentive for interns to participate was that the concept was a flexible means of learning with the advantages of:

- providing them with expanded learning opportunities;
- allowing them to self-select relevant PD to meet their learning needs at a time that suited them;
- creating an impressive resume that could potentially give them a competitive edge for college selections.

The interns' yearly records of participation in learning activities were converted to CME points before being collated by the MEU. An anonymous attitudinal survey, comprising mainly open-ended questions, was developed by the MEU to evaluate the 2008 FEP at the end of the year. This survey provided feedback that was used to revise the FEP, the associated learning activities and allocation of CME points for 2009, and the process was repeated in 2009 for 2010 (Box 2). Evaluations of the FEP in 2009 and 2010 were carried out using a more detailed survey, consisting of 10 questions requiring a yes or no response and three open-ended questions.

1 Intern attendance at facility education program (FEP) activities, 2000–2007*



*Values are means and vertical bars are ranges; 2000–2006 data represent 16 interns and 2007 data represent 32 interns.

RESULTS

During the trial period, there was an increase in the mean number of points accrued by interns, from 114 points (range 60–168, median 113) in 2008 to 132 points (range 85–298, median 127) in 2010 (Box 3). There was a corresponding decrease in the percentage of interns who failed to accrue the required minimum — 20% in 2008 and 8% in 2010. Each year, points were accrued across all PD domains and the majority were gained through participation in education sessions (Box 3). The development of a research club in 2010 had a positive effect on interns' use of research as a PD activity.

The FEP evaluation surveys in 2009 and 2010 revealed mixed attitudes towards the CME points system (Box 4). The majority of interns liked the flexible learning options that the system provided, but about half felt pressured to accrue points. In addition, the majority of interns felt that the PD helped them gain better knowledge and skills, helped them to develop as a clinician and contributed to their development as a professional.

When asked what they liked most about the CME points system, the interns' most common responses were related to the flexibility of the system, the ability to monitor one's learning and the motivation to participate in learning activities that the system provided. Other comments included themes of empowerment, appropriate learning, professionalism and being treated as a professional. When asked what they disliked most about the CME points system, interns' comments included the pressure to accrue points, their inability to participate in activities due to work commitments, and frustration in not being able to include every aspect of non-FEP PD offered throughout the hospital.

DISCUSSION

To address a hiatus of learning incentives, a new FEP for interns based on a CME points system was implemented at Townsville Hospital from 2008 to 2010. During the trial period, the mean number of points accrued per intern increased and there was a decrease in the proportion of interns who failed to accrue the required minimum of 100 points. Interns surveyed at the end of 2009 and 2010 liked the flexibility of the system but felt pressured to accrue points.

Accruing points for participating in learning is not a new concept. It is a well accepted method of providing motivation to participate in professional learning activities.[8-12] In medicine, the concept of using CME points has, to date, been restricted to medical graduates who need to accrue

2 Allocation of continuing medical education points for interns during 2009 and 2010

Education sessions		Skills workshops		Presentations		Research	
Activity	Points	Activity	Points	Activity	Points	Activity	Points
Intern professional development session	3	Advanced life support for interns and generic essential life support	10	Intern training	5	Quality assurance	20
Resident medical officer professional development session	2	Resident medical officer workshops	5	Unit meeting	10	Audit	20
Online module	2	Paediatric life support	15	Grand rounds	20	Published paper*	20
		Prehospital trauma life support	20	Conference*	20		
		Emergency management of severe burns*	20				
		Emergency management of severe trauma	20				
		Clinical rural skills enhancement	20				

*Added for 2010.

3 Continuing medical education points accrued by interns, 2008–2010

	Education sessions	Skills workshops	Presentations	Research	Total
2008 (*n* = 30)					
Total points	2197	935	215	60	3407
Range	40–118	10–65	5–30	0–20	60–168
Mean	73	31	7	2	114
Median	71.5	35	5	0	112.5
Number of interns who accrued < 100 points = 6 (20%)					
2009 (*n* = 39)					
Total points	3682	910	275	60	4927
Range	60–131	0–70	0–25	0–20	78–173
Mean	94	23	7	2	126
Median	90	15	5	0	121
Number of interns who accrued < 100 points = 5 (13%)					
2010 (*n* = 59)					
Total points	5032	1890	490	390	7802
Range	43–141	0–80	0–45	0–80	85–298
Mean	85	32	8	7	132
Median	83	30	5	0	127
Number of interns who accrued < 100 points = 5 (8%)					

4 Results of 2009 and 2010 evaluation surveys on the continuing medical education (CME) points system, completed by interns (yes responses)

Question	2009 (*n* = 22)	2010 (*n* = 46)
I like the CME points system	11 (50%)	32 (70%)
The CME points system allowed me to target learning I needed	6 (27%)	22 (48%)
The professional development provided this year has helped me gain better knowledge and skills	18 (82%)	41 (89%)
The CME points catered to my learning style	6 (27%)	26 (57%)
The professional development provided this year has helped me develop as a clinician	19 (86%)	34 (74%)
The professional development provided this year has contributed to my development as a professional	18 (82%)	40 (87%)
I have actively pursued activities that will give me more CME points	8 (36%)	35 (76%)
The professional development offered this year was a waste of time in most cases	1 (5%)	7 (15%)
I like the flexible learning options the CME points system provides	17 (77%)	40 (87%)
I have felt pressured to accrue points	12 (55%)	22 (48%)

points to maintain specialist accreditation.[8,9] Yet doctors are students of medicine from the day they enrol in medical school and throughout their entire career.[13] It seems reasonable, therefore, to extend the concept of CME into the prevocational period. Many other professions require junior professionals to accumulate evidence of professional activities in the form of points,[10-12] and the results of this study suggest that junior medical professionals would respond positively to such a system.

A number of studies have shown that learning contracts are an essential tool for developing learner autonomy.[14-16] The FEP that was developed in this trial is a type of learning contract. The final iteration of CME point allocations (Box 2) offered the interns flexible learning options by allowing them to choose learning activities that best suited their preferred learning styles and learning needs. Education sessions provide interns with an opportunity to advance their knowledge base. Clinical skills workshops provide simulated clinical experiences that can mimic situated learning, so that learning becomes clinically relevant. Quality assurance and other research activities require self-regulated learning, whereby interns make their own decisions about what they learn, how they learn and the depth to which they understand their new knowledge.[5] The new FEP used in this trial therefore provides a learning environment that adheres to the principles of adult learning.[2]

Although the motivational factors for interns to participate in the FEP used in this trial were not investigated, results of the trial show that interns respond well to a CME points system. As Australia moves towards a full national regulation system, the CME points system has the flexibility to be expanded to other junior doctor years and implemented in other Australian facilities to ensure that self-directed and self-regulated learning occurs across the entire prevocational continuum.

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COMPETING INTERESTS

None identified.

AUTHOR DETAILS

Allyson J Agnew, MContempSc, GradDipEd, GradCertMedEd, Medical Education Officer
Carl J O'Kane, MB BS, FACEM, GradCertClinEd, Director of Clinical Training
Postgraduate Medical Education Unit, Townsville Hospital, Townsville, QLD.
Correspondence:
allyson_agnew@health.qld.gov.au

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