Medical software usage in a primary care training program. Are we training our future doctors to use the EMR?

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Background:

- Increasing usage of computers in primary care (1)
- Barriers against effective usage: standards, financial costs and training (2,3)
- Digital generation/natives – the “now” generation has the capacity to utilise the EMR for health care (4)
- Primary care trainees are in the ideal situation to learn skills in usage of the EMR (5)

Objectives:

1. To investigate current perceived skills in using computers and EMR functions
2. To investigate what training is currently provided
3. To investigate the views and attitudes of trainees and their supervisors on technology, the EMR, and training provision

Methods:

- Descriptive study of GP supervisors (n=74) and GP trainees (n=273)
- Quantitative and qualitative arm
- Data analysed using frequencies, odds-ratios and logistical regression
- Qualitative study undertaken to complement quantitative data collected

Results:

Demographics:

- Trainee response rate – 44%, mean age 32 years old, 74% female
- Supervisor response date – 77%, mean age 47 years old, 77% male

(Male : Female % representative of Australian training cohort)

Training level:

- Trainees – 44% 2nd year/ 56% 3rd year
- Supervisors – 72% 2nd year/ 5% 3rd year/ 13% both 2nd/3rd year training
- >90% trainees and supervisors undertook medical school training in Australia

Trainee views in Electronic Medical Record

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Trainee View (n=120) / Supervisor View (n=57) – listed in combination. (Numbers described as %)					
Background View	**SA**	**A**	**N**	**D**	**SDA**
MS is useful for patient care	64/60	33/30	3/10	0/0	0/0
MS is a hindrance to patient care	3/2	4/9	9/11	52/24	32/54
I am using MS optimally	12/12	46/44	18/18	22/19	2/7
I am fearful of MS	1/0	4/7	10/11	47/42	38/40
I am fearful of technology	1/0	7/9	11/16	40/35	41/40
I prefer handwritten notes	1/4	4/12	13/7	35/37	47/40
I am confident in my computer skills	21/21	53/40	18/35	8/10	0/4
SA = Strongly Agree A = Agree N = Neutral D= Disagree SDA = Strongly Disagree					

Skills to use computers in various tasks

Skills/Ability to use computers in various tasks (Numbers as %)		
	Trainees	Supervisors
Writing scripts	97	100
Writing referrals	97	92
Ordering tests	95	96
Performing a patient reminder	91	89
75 year old assessment	47	74
Chronic Disease Management plan	56	86
Past History record update	88	93

Comparisons between trainees and supervisors indicated equal skills except for advanced skills: 75 year old assessments (OR 0.31 [0.15-0.62]) and chronic disease plans where supervisors had better skills (OR 0.20 [0.09-0.47])

Trainee views

- Over 70% had no prior training
- 17% had formal training with their current training provider
- General EMR education was done via GP supervisor (78%) – usually in ad-hoc, in-formal encounters
- Supervisor training – 58% - 30-120 minutes
- 53% would like formal training with most indicating training before commencement of placements
  - Skill areas for training – early survival phase in primary care to advanced EMR skills

Supervisor views

- Nearly 50% had no prior training
- 2% had formal training with their current training provider
- 37% would like up-skilling in usage of EMR
- Supervisors – 82% indicated a need for trainees to have formal training before the start of clinical placements

Results:

Barriers: Five themes

1. Generational issues – an assumption that trainees were more IT-savvy and thus no training was required
2. Knowledge – supervisors' lack of medical software skills and knowledge
3. Time – emphasis on pre-placement training
4. Priorities – limited time with clinical issues taking priority
5. Place of training – there were divergent views on the ideal venue for training, between in-house supervisor-run training versus training from dedicated GP training program providers

Discussion

- Perception that medical software is a useful tool and general confidence in skill levels
- Advanced software functions not utilised by GP trainees which may indicate lack of formal training in these skills – this is confirmed in results which indicate low levels of formal training in supervisors and trainees and that EMR education is ad-hoc, informal and low in training time
- Both trainees and supervisors would like formal training particular before clinical placements however there is discourse on who should provide training; supervisor or GP training organisation
  - This conflict needs to be appropriately addressed for improved EMR software usage
- Barriers to usage are similar to previous studies

Conclusion

- Primary care supervisors and primary care training providers have a key role to play in up-skilling GPs in the usage of the EMR
- Training should be a shared responsibility
- Appropriate use of the EMR by our future primary care doctors will ensure improved patient outcomes

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