
Developing clinical teacher's self-efficacy in Australian general practice

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Table of Contents

ABSTRACT	xiv
Developing clinical teacher’s self-efficacy in Australian general practice	xiv
Statement of Declaration	xvi
Acknowledgements	xvii
CHAPTER 1: INTRODUCTION, BACKGROUND, METHODOLOGY	1
Introduction	1
Background – general practice training in Australia	1
Historical foundations	1
Strengths.....	2
Competing demands	4
Current changes and challenges.....	5
Research intent	6
Methodology	7
Case study methodology	7
Research techniques.....	10
CHAPTER 2: QUALITIES AND ATTRIBUTES OF AN EXCELLENT CLINICAL TEACHER	13
Context	13
The good clinical teacher	16
Roles of Australian clinical teachers.....	18
Progressing clinical teacher excellence	19
New understandings.....	19
Learner-centric	21
Facilitation of the learner	21
Learner feedback	22
Learner relationship.....	22
Professional behaviours.....	23
Core competencies of the GP clinical teacher	23
Workshop: “What makes a good clinical teacher?”	25
Quality descriptors of a good clinical teacher	28
FACILITATOR role – mentor and learner	28

Table of Contents

PLANNER – course organizer and curriculum/syllabus planner	28
INFORMATION PROVIDER – lecturer and clinical/practical teacher	29
RESOURCE DEVELOPER – resource material creator and study guide producer	29
ROLE MODEL – on the job and teaching role model.....	29
ASSESSOR – student and curriculum/syllabus	30
Professional development of clinical teacher competencies	30
Frameworks of clinical teacher competency	34
International	34
RACGP star and domains	35
ACRRM domains.....	37
Symbiotic clinical education.....	39
CANMEDS competency framework	40
Medical expert.....	41
Communicator.....	41
Collaborator	42
Manager	42
Health advocate	42
Scholar	42
Professional.....	43
Future directions for Australia.....	43
Adoption of CanMED competency based framework for general practice.....	43
Development of non-cognitive attributes	46
Self-efficacy in teaching.....	47
CHAPTER 3: SELF-EFFICACY CONSTRUCT FOR MEDICAL EDUCATION	49
Self-efficacy definition.....	49
Bandura’s theoretical framework	50
Teacher self-efficacy	51
Definition	51
Historical understanding.....	52
Measures of teacher self-efficacy	53
Findings of teacher efficacy research.....	58
Developmental requisites for measurement of teacher self-efficacy.....	59
Use of self-efficacy within medical and health environments	61
Undergraduate student uses.....	62
Post graduate uses.....	65
Continuing Medical Education uses	66

Table of Contents

Self-efficacy and performance within medical and health environments	70
Clinical teacher self-efficacy	74
Definition	75
Literature.....	75
Program evaluation.....	76
Clinical teaching measures	78
Cleveland Clinical Teaching Effectiveness Instrument.....	78
Masstricht Clinical Teaching Questionnaire.....	79
Self-efficacy in asthma teaching	79
Clinical Supervision Self-Efficacy Tool.....	80
Modified STEBI instrument.....	81
Parallel considerations	82
AOGP – the skilled teacher.....	82
Reflective practice	83
Research into clinical teacher self-efficacy	84
Summary	85
CHAPTER 4: THE EFFECTIVENESS OF INTERVENTIONS ON THE SELF-EFFICACY OF CLINICAL TEACHERS: A SYSTEMATIC REVIEW	88
Background	88
Objectives	91
Review methodology	91
Inclusion criteria	91
Search strategy.....	92
Method of the review	94
Data extraction.....	94
Data synthesis	94
Results	94
Description of studies	97
Methodological quality	97
Findings of the review	99
Focused clinical teacher training courses	99
Interactive training activities	103
Peer learning, review and mentoring.....	104
Discussion	109
Practical focused clinical teaching training program.....	110

Table of Contents

Interactive training	110
Peer learning.....	110
Implications.....	111
Limitations.....	113
Conclusion	114
CHAPTER 5: DEVELOPMENT AND EVALUATION OF A MEASUREMENT TOOL FOR SELF-EFFICACY IN CLINICAL TEACHING.....	116
Introduction.....	116
Background.....	117
Methodology	119
Literature search.....	119
Clinical teaching domain identification.....	121
Item generation	122
Appropriateness.....	123
Pilot SECT testing.....	126
Statistical analysis methodology	127
Reliability	127
Validity.....	128
Exploratory factor analysis.....	130
Rotation.....	132
Pilot SECT results	132
Conclusion.....	139
Evaluation SECT data analysis	140
Participants.....	140
Methods.....	140
Results	141
Extreme group construct validity.....	148
Discussion.....	150
Validity criteria	151
Limitations.....	155
Implications.....	157
Summary	159
CHAPTER 6: MENTAL IMAGERY AND SELF-EFFICACY	160
Introduction	160
Mental Imagery in Sport	160

Table of Contents

PETTLEP framework.....	162
Mental imagery in medicine.....	163
Mental training in surgical training	165
Mental imagery in medical education.....	167
CHAPTER 7: AN INNOVATIVE INTERVENTION TO DEVELOP SELF-EFFICACY IN CLINICAL TEACHERS IN AUSTRALIAN GENERAL PRACTICE.....	170
Introduction.....	170
Hypothesis	170
Theoretical basis	171
Genuine self-efficacy.....	172
Aligned sports psychology	172
Design of intervention	173
Development and planning of intervention	174
Delivery of intervention.....	174
Measurement of Self-Efficacy in Clinical Teaching (SECT).....	175
Triangulation with other information	175
Intervention methodology.....	176
Ethical approval.....	177
Participants.....	177
Statistical analysis	178
Results of intervention.....	178
Impact.....	179
Three SECT factor outcomes.....	181
Secondary outcomes.....	184
Discussion of Self-efficacy in clinical teachers intervention	186
Summary of intervention results.....	191
CHAPTER 8: DISCUSSION.....	193
Key learnings	193
Medical education	194
Innovative approaches	195
Academic research rigour	196
Case study methodology	197
General practice competency framework	199
Imperative.....	199
National approaches.....	200

Table of Contents

Adaption of CanMEDS framework.....	201
Core competencies of the GP clinical teacher	204
Domains	204
Quality descriptors.....	205
Assessment of clinical teachers.....	207
Self-efficacy is a useful construct for medical education.....	209
Self-efficacy is integral part of clinical teaching	212
A reliable and valid Self-Efficacy in Clinical Teaching (SECT) measurement	213
Mental imagery intervention	213
Further research.....	215
Benefits.....	216
CHAPTER 9 - CONCLUSION.....	218
APPENDICES	221
Appendix I: Search strategy	221
Appendix II: Quantitative appraisal instruments	222
Appendix III: Data extraction instrument.....	224
Appendix IV: Quantitative Excluded studies (after critical appraisal).....	225
Appendix V: Systematic review data extraction summary table	226
Appendix VI: University of Adelaide ethics approval.....	244
Appendix VII: SECT scale pilot version	245
Appendix VIII: Workshop – Mastering Performance	248
Appendix IX: Self-Efficacy in Clinical Teacher Tool	251
Appendix X: RACGP core skills, domains and star of general practice	252
REFERENCES.....	253

List of Tables

Table 1.1: Methodology summary by type and case study elements.....	12
Table 2.1: Responses to the 2011 good clinical teacher workshop.....	27
Table 2.2: Australian GP clinical teacher competencies (McArthur) ⁽⁹⁷⁾	32
Table 2.3: ACCRM primary curriculum section – abilities for research and teaching ⁽¹⁰⁴⁾	38
Table 3.1: Some teacher efficacy measurement scales (Education).....	57
Table 3.2: Examples of self-efficacy measurement scales (medical education).....	69
Table 3.3: PubMed search grid for clinical teacher self-efficacy (performed in 2014).....	75
Table 3.4: Examples of Clinical Teacher Self Efficacy Tools (Medical Education).....	82
Table 4.1: Randomized control trial/pseudo-randomized trial.....	98
Table 4.2: Descriptive case series studies.....	98
Table 4.3: Singh overall self-efficacy results of FAIMER professional development ^{(202)(p362)}	108
Table 5.1: Examples of clinical teacher self-efficacy tools (medical education)	120
Table 5.2: Items sample of clinical teacher self-efficacy tools	123
Table 5.3: Pilot SECT item mean and Cronbach alpha scores	133
Table 5.4: SECT pilot eigenvalues.....	134
Table 5.5: SECT rotated factor pattern.....	135
Table 5.6: SECT item communality	137
Table 5.7: SECT Pilot – factor structure (correlations) – Promax	138
Table 5.8: Characteristics of the sample used to validate the questionnaire	142
Table 5.9: Validation SECT items	143
Table 5.10: SECT validation Eigenvalues	144
Table 5.11: Results of the factor analysis with oblique rotation to evaluate Self-Efficacy in Clinical Teaching (N=86).....	146

Table of Contents

Table 5.12: Bivariate associations between some individual characteristics and the three factors of self-efficacy in clinical teaching	149
Table 6.1: Liu Experimental Protocol for Use of Mental Imagery ⁽²⁹⁰⁾ (p1404)	164
Table 6.2: Arora Mental Imagery Questionnaire ⁽²⁴³⁾ (p181)	166
Table 7.1: SECT intervention – Comparison of some characteristics of participants	179
Table 7.4: SECT Intervention multivariant analysis over time	181
Table 7.5: Intervention results reconciled to three SECT factors	182
Table 7.6: Subgroup correlation with supervisor qualities	184
Table 7.7: Subgroup correlation with clinical teaching	185
Table 7.8: Results of the intervention on IPT	185

List of Figures

Figure 2.1: The GP supervisor’s web of educational activities ¹³ (p1167)	19
Figure 2.2: Harden’s 12 roles of the clinical teacher ⁽⁵⁶⁾ (p336)	25
Figure 2.3: Sommer’s formative rubric structure for teaching skills ⁽⁹⁴⁾ (p604)	31
Figure 2.4: Dundee three-circle model for learning outcomes (Simpson) ⁽³³⁾ (p137)	34
Figure 2.5: Molenaar’s framework of clinical teaching competencies ⁽¹⁰²⁾ (p392)	35
Figure 2.6: RACGP five domains of general practice ⁽³⁹⁾ (p xvii)	36
Figure 2.7: RACGP star of general practice ⁽³⁹⁾ (p xviii)	36
Figure 2.8: Worley symbiotic clinical education model ⁽¹⁰⁵⁾ (p114)	39
Figure 2.9: CanMEDS competency framework ⁽¹⁰⁹⁾ (p5).....	40
Figure 2.10: Australian adapted CanMEDS roles, areas and core competencies (McArthur) ⁽¹¹⁵⁾	45
Figure 3.1: Cyclical nature of teacher efficacy ⁽¹²⁰⁾ (p228)	54
Figure 3.2: Artino’s social cognitive model of academic motivation and emotion ⁽¹⁴⁹⁾ adapted from Pekrun ⁽¹⁵⁰⁾ (p1204)	63
Figure 3.3: Differences in medical students’ skills self-efficacy across four year groups ⁽¹²²⁾ (p35)	65
Figure 3.4: Contributing factors in health professional communication behaviours (Parle) ⁽¹⁶⁴⁾ (p234)	67
Figure 3.5: Mediating role of self-efficacy and OSCE performance (Mavis) ⁽¹⁷⁹⁾ (p98)	71
Figure 3.6: Erlich’s STEP adaption of Kirkpatrick pyramid of curriculum evaluation ⁽¹⁹¹⁾ (p325)	77
Figure 3.7: Fryer-Edwards conceptual model of teaching as reflective practice ⁽²⁰⁸⁾ (p642)	84
Figure 3.8: Unified conceptual construct of clinical teacher self-efficacy (McArthur) ⁽²⁰⁹⁾	86

Table of Contents

Figure 4.1: Summary of research logic grid 93

Figure 4.2: Flowchart for the search and study selection process ^{adapted from (226)} 95

Figure 5.1: Self-Efficacy in Clinical Teaching (SECT) tool 125

Figure 5.2: Pilot SECT scree graph plotting..... 134

Figure 5.3: Screeplot after principal component analysis of the 25 self-efficacy items
(results without rotation) 144

Figure 5.4: Intercorrelations of factorial structure..... 145

Figure 5.5: Validated SECT tool 2016⁽²⁶⁵⁾ 154

Figure 7.1: SECT total score over time 180

Figure 7.2: SECT mean average score over time 180

Figure 7.3: Timeline effects of the intervention SECT dimensions score..... 183

Figure 8.1: Australian adapted CanMEDS roles, areas and core competencies
(McArthur)⁽¹¹⁵⁾ 203

Figure 8.2: Shumway 12 learning outcomes in Miller pyramid⁽³⁰⁷⁾ (p578) 208

Figure 8.3: Unified conceptual construct of clinical teacher self-efficacy (McArthur)⁽²⁰⁹⁾
..... 210

Glossary of acronyms

ACGME	Accreditation Council for Graduate Medical Education (USA)
ACRRM	Australian College of Rural and Remote Medicine
AGPT	Australian General Practice Training
AJDCF	Australian Junior Doctor Curriculum Framework
AOGP	Adelaide to Outback General Practice training
APLS	Advanced Paediatric Life Support course
BEST	Bringing Education and Service Together curriculum
CanMEDS	Framework of The Royal College of Physician and Surgeons of Canada
CCTEI	Cleveland Clinical Teaching Effectiveness Instrument
CTPI	Clinical Teaching Perception Inventory
CSSET	Clinical Supervision Self-Efficacy Tool
CTAI	Clinical Teaching Assessment Instrument
EFA	Exploratory Factor Analysis
EOSA	End of Semester Appraisal
ERIC	Education Related Information Center (USA)
FACRRM	Fellowship of the Australian College of Rural and Remote Medicine
FAIMER	Foundation for Advancement of International Medical Education and Research
FMP	Family Medicine Program
FRACGP	Fellowship of Royal Australian College of General Practitioners
G-CEL-Q	Geriatrics Clinician Educator Learning Questionnaire
GMC	General Medical Council (UK)
GP	General Practitioner
GPET	General Practice Education and Training
GPR	General Practice Registrar
GPS	General Practice Supervisor
GPSA	General Practice Supervisors Association
HWA	Health Workforce Australia

Abstract

JBI	Joanna Briggs Institute
KSA	Knowledge Skill Attitude and Attributes
KMO	Kaiser-Meyer-Olkin measure
MASS	Medical Achievement Self-efficacy Scale
MAStARI	Meta-Analysis of Statistics Assessment and Review Instrument
MCTQ	Maastricht Clinical Teaching Questionnaire
MIQ	Mental Imagery Questionnaire
OSCE	Objective Structured Clinical Examination
OSTE	Objective Structured Teaching Encounter
PBL	Problem Based Learning
PCA	Principal Components Analysis
PETTLEP	Physical Environment Task Timing Learning Emotion Perspective framework
PGPPP	Prevocational General Practice Placement Program
PGY2	Post Graduate Year 2
RACGP	Royal Australian College of General Practitioners
RAND	Research organisation (USA)
RAT	Resident as Teacher
RCT	Randomised Controlled Trial
RTP	Regional Training Providers
SEAT	Self Efficacy in Asthma Teaching
SECT	Self Efficacy in Clinical Teacher
SNAPPS	Summarise-Narrow differential-Analyse-Probe-Plan-Select
STEBI	Science Teaching Efficacy Belief Instrument
TEBS	Teacher Efficacy Beliefs System
TSES	Teacher Sense of Efficacy Scale
TOTR	Teaching On The Run
TtT	Train the Trainer

ABSTRACT

Developing clinical teacher's self-efficacy in Australian general practice

The Australian health system, including general practice as the main primary health care provider, faces many challenges. This includes a rapidly ageing population, the increasing burden of chronic disease and co-morbidities, increased community expectations, technological advances and balancing a burgeoning evidence base with holistic, patient centred care.

Concurrent changes include the shift from apprenticeship to competency-based education, competitive tender processes for general practitioner (GP) training with increased accountability for government funding and workforce distribution.

Though high professional standards of general practice in Australia provide a strong foundation for a mature GP training program, in addition to the clinical and financial, there are wider educational challenges.

There is an increased expectation that a GP clinically supervises and teaches undergraduate and postgraduate medical and allied health students. The GP supervisor role is pivotal, underpins all the learning, yet is complex, demanding and at times, potentially conflicting. Ageing GP supervisors, the lack of recognised qualifications, limited clinical teaching professional development and training capacity saturation, especially in rural and remote areas, are impacting on the quality of clinical teaching.

Beyond being the medical expert, GPs have other important roles in the Australian health system and are uniquely placed to lead and respond to these challenges and changes. An important pillar underpinning quality primary health care is high quality training. For the GP supervisor to function effectively in primary health care provision and be the cornerstone of GP training, there needs to be an evidence based understanding of their roles, competencies and professional development.

A consensus-developed national competency based framework provides the foundation to align clinical practice, accreditation, clinical teaching, student training, quality assurance and ongoing professional development. Articulating the GP role as a scholar, recognises the essential clinical teaching domains and defines the knowledge, skills, attitudes and attributes of a clinical teacher. Identifying these competencies informed descriptors of quality, required training, professional development and potential assessment approaches.

A new unified conceptual construct of clinical teacher self-efficacy provides a new dimension for medical education research. Clinical teacher self-efficacy is the confidence and belief that their teaching will positively influence and impact on the learner in the clinical medical environment. Knowledge translation from fields of psychology and education show that self-

Abstract

efficacy is a key factor in influencing the teacher's professional behaviour, motivation and persistence. It also influences performance and student learning outcomes.

A systematic review on the effectiveness of interventions on the self-efficacy of clinical teachers identified a paucity of research. In the few published studies the interventions that positively impacted on self-efficacy in the clinical teacher included: focussed clinical teaching courses, interactivity using clinical scenarios, communication skills and teaching prompts, with peer learning, review and mentoring.

There is an international absence of a measurement tool to evaluate self-efficacy in clinical teaching. Consequently a second objective of this thesis was to develop and validate a new Self-Efficacy in Clinical Teaching (SECT) tool. A two-stage evaluation showed SECT to be an authentic and reliable measurement with good content, construct and dimensional validity.

The innovation of a low technological intervention using mental imagery and visualisation provided an interactive clinical teacher professional development, and demonstrated the development of self-efficacy in the clinical teacher. Although secondary outcomes showed no impact on indirect performance indicators (supervisor qualities or quality of clinical teaching), further research is indicated.

Self-efficacy development can form an effective and integral part of the professional development of clinical teachers and medical educators. The duality of competency and self-efficacy can provide the arms for excellence in Australian general practice and clinical teaching.

An increased recognition and support for the clinical teaching roles of the GP will provide community benefits by fostering high quality training, excellent patient care, patient safety, and cost-effectiveness.

Statement of Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Signed _____

Dr Lawrence Andrew McArthur

7th November 2016

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