LEMBAR HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW KARYA ILMIAH: JURNAL ILMIAH

Judul Artikel Ilmiah

Community-based educational design for undergraduate medical

education: a grounded theory study

Penulis Artikel Ilmiah

Mora Claramita, Elsa Pudii Setiawati, Tri Nur Kristina, Ova Emilia, and

Cees van der Vleuten

Status Pengusul

Penulis pertama/penulis anggota/penulis korespondensi

Identitas Jurnal Ilmiah

a. Nama Jurnal : BMC Medical Education

: 1472-6920 b. ISSN c. Volume/No/halama: 19/ 258. d. Edisi (bulan/tahun) : July 2019 e. Penerbit : Springer Nature

f. Jumlah halaman : 12

: 10.1186/s12909-019-1643-6

g. DOI (Jika ada) h. Web jurnal

: https://bmcmededuc.biomedcentral.com

h. Terindeks di

: Scopus, Q1, SJR (2018) = 0,8

Kategori Publikasi Jurnal Ilmiah

(beri ü pada kategori yang tepat) I. Hasil Penilaian Peer Review

V Jurnal Ilmiah Internasional Bereputasi

Jurnal IlmiahInternasional

	VV	Nilai Maksimal Karya Ilmiah	Nilai Yang	
Komponen Yang Dinilai		Jurnal Ilmiah Internasional Bereputasi	Diperoleh	
a.	Kelengkapan dan Kesesuaian unsur isi artikel (10%)	4	3,90	
b.	Ruang lingkup dan kedalaman pembahasan (30%)	12	12,00	
С	Kecukupan dan kemutahiran data dan metodologi (30%)	12	11,90	
d.	Kelengkapan unsur dan kualitas penerbit (30%)	12	12,00	
Nilai Total = (100%)		40	39,80	
	Nilai pengusul :	$(0,4 \times 39,80)/4 = 3,98$	3,98	
KO	MENTAR/ULASAN PEER REVIEW			
Kel	engkapan dan Kesesuaian Unsur	 Abstrak tersaji lengkap dan informatif. Pendhasil, pembahasan, kesimpulan dan daftar lengkap sesuai dengan kaidah penulisan ili mutakhir dan relevan 	pustaka, tertulis	

nutakhir dan relevan

Ruang Lingkup dan Kedalaman Pembahasan

ruang lingkup sesuai dengan bidang keilmuan pengusul medical education. Pembahasan luas dan dalam mulai mikro, meso dan makro kurikulum, dan dibandingkan dengan penelitian-penelitian terdahulu

Kecukupan & Kemutakhiran Data & Metode

data didapatkan dengan interview, menggunakan metode eksplorasi kualitatif, dengan pertanyaan yang terstandar

Kelengkapan Unsur dan Kualitas Penerbit

jurnal Internasional bereputasi Scopus Q1, SJR 0,8

Semarang.

Reviewer 1

Prof. Dr. Drg. Oedijani, MS Bidang Ilmu: Kedokteran

Jabatan Fungsional: Guru Besar

LEMBAR

HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW

KARYA ILMIAH: JURNAL ILMIAH

Judul Artikel Ilmiah

Community-based educational design for undergraduate medical

education: a grounded theory study

Penulis Artikel Ilmiah

Identitas Jurnal Ilmiah

Mora Claramita, Elsa Pudji Setiawati, Tri Nur Kristina, Ova Emilia,

and Cees van der Vleuten

Status Pengusul

Penulis pertama/penulis anggota/penulis korespondensi

a. Nama Jurnal

: BMC Medical Education

b. ISSN : 1472-69 c. Volume/No/halama : 19/ 258.

1472-6920

d. Edisi (bulan/tahun) :

July 2019

e. Penerbit

Springer Nature

f. Jumlah halaman

: 12

g. DOI (Jika ada)

: 10.1186/s12909-019-1643-6

h. Web jurnal

: https://bmcmededuc.biomedcentral.com

h. Terindeks di

: Scopus, Q1, SJR (2018) = 0,8

Kategori Publikasi Jurnal Ilmiah

(beri ü pada kategori yang tepat)

V Jurnal Ilmiah Internasional Bereputasi

Jurnal IlmiahInternasional

ı	Hasil	Peni	laian	Peer	Review	

Komponen Yang Dinilai		Nilai Maksimal Karya Ilmiah		Nilai Yang Diperoleh	
		Ju			
a.	Kelengkapan dan Kesesuaian unsur isi artikel (10%)		4	4,00	
b.	Ruang lingkup dan kedalaman pembahasan (30%)		12,00		
С	Kecukupan dan kemutahiran data/informasi dan metodologi (30%)		12	11,00	
d.	Kelengkapan unsur dan kualitas penerbit (30%)		12	12,00	
Nilai Total = (100%)			40	39,00	
	Nilai pengusul =		$(0.4 \times 39,00)/4 = 3.9$		
KOI	MENTAR/ULASAN PEER REVIEW				
Kele	engkapan dan Kesesuaian Unsur	:	Struktur artikel lengkap dan isi sesuai dengan subtitle. State of art dijelaskan dengan baik dan dijawab di kesimpulan.		
Ruang Lingkup dan Kedalaman Pembahasan			Diskusi dilakukan secara ilmiah dengan mensitasi artikel-artile sebelumnya yang mendukung/berlawanan hasil dan dijelaskan alasan secara ilmiahnya.		
Kecukupan & Kemutakhiran Data & : Metodologi Kelengkapan Unsur dan Kualitas Penerbit :			: Merupakan study qualitative exploratory dengan grounded theory approach. Metode diuraikan dengan lengkap dan jelas dari subjects, instrument dan analisis statistic. Namun tidak disampaikan ethical research. Sebagian referensi yang disitasi jurnal/buku terbitan ,10 tahun		
			Article diterbitkan di BMC Medical Education, jurnal terindex scopus Q1, SJR 0.83 (2020).		

3-8-2020 Semarang, Reviewer 2

Prof. Dr. dr. Tri Indah Winarni, MSI Med, PA

NIP 196605101997022001

Unit kerja: Fakultas Kedokteran Undip

Bidang Ilmu: Kedokteran

Jabatan Fungsional: Guru Besar

Search

Explore journals Get published

About BMC

Login

Menu

BMC Medical Education

Home About Articles Submission Guidelines Join The Board

Search articles within this journal

Q

Submit manuscript

Collections open to submissions



Advancing healthcare systems with interprofessional education and collaboration

Guest Edited by: Salman Guraya, Sue Pullon, and Kerry Wilbur

Articles

Recent

Most accessed

Perception of pediatric residents from a tertiary hospital in the city of México regarding their training during the COVID-19 pandemic

Eduardo Bracho Blanchet, Miguel Künder Klünder, José Antonio Orozco Morales, Carolina Hill De Titto and Diana Avila Montiel

Research | 17 October 2022

Do in-service training materials for midwifery care providers in sub-Saharan Africa meet international competency standards? A scoping review 2000–2020

Joanne Welsh, Hashim Hounkpatin, Mechthild M. Gross, Claudia Hanson and Ann-Beth Moller

Research 14 October 2022

Implications of introducing case based radiological images in anatomy on teaching, learning and assessment of medical students: a mixed-methods study

Ramya Rathan, Hossam Hamdy, Salah Eldin Kassab, Miral Nagy F. Salama, Anusha Sreejith and Aji Gopakumar

Research 14 October 2022

Creating an online educational intervention to improve knowledge about systematic reviews among healthcare workers: mixed-methods pilot study

Marina Krnic Martinic, Snjezana Malisa, Diana Aranza, Marta Civljak, Ana Marušić, Damir Sapunar, Tina Poklepovic Pericic, Ivan Buljan, Ruzica Tokalic, Dalibor Cavic and Livia Puljak

Research | 14 October 2022

Menu

BMC Medical Education

Home About Articles Submission Guidelines Join The Board

About ▼

Contact

Editorial Board

Editorial Board

Dr Betty Mousikou, Editor



Betty is the Editor of *BMC Medical Education*. Betty did first a BA in Primary Education at Aristotle University of Thessaloniki, then an MA in Speech and Language Therapy, an MA in Cognitive Neuropsychology, and a BA in Linguistics at Complutense University of Madrid. She then moved to Sydney to do a PhD in Cognitive Science at Macquarie University. Before joining BMC, Betty worked in academia for 10 years: she was a Marie-Curie Experienced Researcher at Bangor University, a British Academy Postdoctoral Fellow at Royal Holloway, University of London,

and a Research Scientist at the Max Planck Institute for Human Development and the University of Göttingen.

Senior Editorial Board Members

n (n

Protessor Peter Anderson

Peter G. Anderson, DVM, PhD is a professor of Pathology and Director of Pathology



Undergraduate Education at the University of Alabama at Birmingham (UAB) Medical Center, Schools of Medicine and Dentistry. His major area of research is cardiovascular pathophysiology with special emphasis on animal models of human disease. He is involved in numerous collaborative research activities of the vascular reaction to mechanical injury and intravascular stents. Dr. Anderson is also very active in educational pursuits, most notably in using technology to enhance teaching and learning. He holds leadership positions in many national and international educational organizations and

has been a frequent guest speaker on issues related to medical education.

Professor Samy Azer



Professor Samy Azer is an Australian physician, author and medical academic. He was honoured to contribute to medical education in several countries. He graduated in medicine and completed his training in gastroenterology. He obtained a PhD from the University of Sydney, a Master in Education, and a Master in Public Health from New

South Wales, Australia. He is a fellow of the American College of Gastroenterology (FACG). He was a Senior Lecturer at the University of Sydney and the University of Melbourne. He is a visiting professor at the University of Toyama, Japan, and was a professor of Medical Education at Universiti Teknologi MARA, Malaysia. Currently, he is a professor of medical education and Chair of Curriculum Development and Research at King Saud University college of medicine. He has been invited as a keynote speaker to conferences in South East Asia, Sweden, Turkey, Australia, the Middle East countries and the United States. He has over 100 original articles published in scientific journals and authored five medicine and medical education toythooks. He is Editor at PLOS ONE.

Editor at MEDICINE, and the World Journal of Gastrointestinal Oncology and BMC Medical Education. He is a Senior Editor at Health Professions Education. Recently he was

granted Fellowship of the Association of Medical Education in Europe (FAMEE) for his leadership in medical education globally.

Professor Salman Yousuf Guraya



Professor Salman Guraya is a senior medical educator, laparoscopic surgeon, editor, and an academic professional. Currently, he is serving as Vice Dean of College of Medicine and Head of Surgical Unit University of Sharjah. He is an experienced minimally invasive surgeon with special interest in colorectal and endocrine surgery. His surgical and academic experience spans over several countries including UK, Scotland, France, Italy, Saudi Arabia and Pakistan. Prof. Guraya is Director of Basic Surgical Skills and CCrISP courses by the RCS England. He has authored

numerous multi-center research articles with eminent scholars from Germany, Malaysia, Holland, KSA, Italy, Saudi Arabia and UK about surgical innovations and technologies, simulation and artificial intelligence and the use of technologies in MedEd. Dr. Guraya is an active editor of BMC Medical Education (Springer Nature), Frontiers in Surgical Oncology, and Advances in Biomedical and Health Sciences (Wolters Kluwer). In medical education, his main areas of expertise are curriculum interventions, simulation in teaching and learning, professionalism and ethics, getting scholarly work published in the peer review journals, using technologies in teaching and assessment, clinical training in the new normal, and program evaluation.

Professor Sigrid Harendza



Sigrid Harendza, MD, MME, is full professor for internal medicine and educational research at the University



Medical Center Hamburg-Eppendorf, Germany. She worked as postdoctoral fellow at UCSF, San Francisco, and received a Master of Medical Education degree at the University of

Bern, Switzerland, in 2004. At the Medical Faculty in Hamburg, she was vice-dean of education from 4/2006 until 3/2007 and received the Ars Legendi Award by the German Rectors' Conference and the Stifterverand für die Deutsche Wissenschaft in 2006. She is board member of the German Association for Medical Education (GMA) since 2012. Her main research interests are clinical reasoning, competence-based assessment, and uncertainty. She joined the BMC Medical Education Editorial Board in 2013.

Professor Blossom Yen-Ju Lin



Blossom received a BS in pharmacy in China Medical
University and a MS in biochemistry in National Taiwan
University in Taiwan. She got a PhD at the Program of
Health Services Organization and Research at Medical
College of Virginia, Virginia Commonwealth University, USA.
Now she is a professor at Department of Medical

Humanities and Social Sciences, School of Medicine, Chang Gung University, Taiwan. Blossom has worked in academia for more than 20 years. As a principal investigator, Blossom has got research funding from Taiwan National Science Council, Taiwan National Health Research Institute, and Taiwan Ministry of Health and Welfare, covering topics on medical education, and in health care.

Associate Professor Jacqueline McLaughlin



Jacqui McLaughlin, PhD is an associate professor and director of CIPhER (*Center for Innovative Pharmacy Education and Research*) at the UNC Eshelman School of Pharmacy. She received her bachelor of science in Biological Engineering from North Carolina State University, master of science in Biomedical Engineering from University

of Memphis/University of Tennessee, and doctor of philosophy in Educational Research and Policy Analysis from North Carolina State University. Dr. McLaughlin has published more than 100 peer-reviewed articles about

higher education, including studies about design thinking, diversity, experiential learning, flipped learning, graduate education, interprofessional education, and student selection. She has also received the Excellence in Assessment Award, Emerging Scholar in Teaching and Learning Award, and New Investigator Award from American Association of Colleges of Pharmacy.

Professor Christopher Roberts



Chris Roberts MBChB MRCGP FRACGP MMedSci (Primary and Community Care) PhD is an Educational Consultant based in the UK. He is an Honorary Professor in Medical and Health Sciences Education at Sydney Medical School, and at Hull York Medical School in the UK. He has held a number of senior positions within Sydney Medical School, within the wider University of Sydney, and before that, in the UK at the Sheffield Medical School. He has been a consultant to the Royal College of Australian Physicians and the former General Practice Education and Training on evaluating and developing

national selection strategies. His medical and health science education research includes clinical learning and teaching, selection focussed assessment, and professionalism. He supervises an active group of doctoral students in medical education research. He has been an active clinical teacher for over 30 years, including developing and implementing large-scale interprofessional learning. He has received teaching awards at the Faculty, University, Australian national, and international levels.

Professor Olwyn Westwood

Professor Olwyn Westwood is a recognised medical educator and alumnus of King's College London. Having academic and leadership roles within post-1992 and Russell

Group institutions, and programme director for a Masters in Medical Education, she is a mentor to colleagues in pedagogic practice and research supervision. A Principal Fellow of the Higher Education Academy, Olwyn is an advisor for Royal College membership



examinations, and the UK's National Prescribing Safety
Assessment. She is well-versed in quality assurance and
enhancement, having been a GMC reviewer for around 10
years, she led two successful GMC audits at Barts and the
London School of Medicine and Dentistry, Queen Mary
University of London and the GMC's process for Brunel
University London to be permitted to recruit medical
students for the launch a new medical school. She is a
member of the HEE Medical Doctors' Apprenticeship
Implementation Group and been a board member of

Caribbean Accreditation Authority for Education in Medicine and Other Health Professions. She has extensive experience in the collaborative partnership for the development of UK primary medical awards. Her international advisory roles on curriculum and quality assurance, e.g. China, Malaysia, Brunei, Georgia, have facilitated her insight into the cultural, social and political requirements and issues in medical curriculum development and delivery.

Professor Marjo Wijnen-Meijer



Marjo Wijnen-Meijer, PhD, is professor of medical education and team leader of curriculum development at the Medical Education Center, School of Medicine, Technical University of Munich, Germany. Her responsibilities include development of medical curricula, design of faculty development programs and the coordination of (international) research projects in the field of medical education.

Professor Tim Wilkinson

Tim Wilkinson is Professor in Medicine and medical education at the University of Otago, New Zealand. He is deputy Dean for the University of Otago's Christchurch campus. He was the MBChB programme director 2013-2021 and was Associate Dean (Medical



Education) in Christchurch from 1997-2018. He has a MClinEd, PhD and MD that are all in medical education. His research interests are assessment of clinical competence and performance, workplace learning, selection into medical school, career paths, and professionalism. He works as a consultant physician in geriatric medicine.

Editor

Dr Betty Mousikou, BMC, Germany

Assistant EditorDr Catherine Rice, *BMC*, *UK*

Senior Editorial Board Members

Peter Anderson, University of Alabama at Birmingham, USA
Samy Azer, King Saud University, Saudi Arabia
Salman Yousuf Guraya, University of Sharjah, United Arab Emirates
Sigrid Harendza, University Medical Centre Hamburg-Eppendorf
Blossom Yen-Ju Lin, Chang Gung University, Taiwan
Jacqueline McLaughlin, University of North Carolina at Chapel Hill, USA
Chris Roberts, University of Sydney
Olwyn Westwood, Brunel University London, UK
Marjo Wijnen-Meijer, Technical University of Munich
Tim Wilkinson, University of Otago

Editorial Board Members

Eiman Abdel Meguid, *Queen's University Belfast, UK* Usman Abubakar, *Universiti Sains Malaysia, Malaysia* Karthik Adapa, *University of North Carolina-Chapel Hill, USA*Tauseef Ahmad, *King Saud University, Saudi Arabia*Soleiman Ahmady, *KI and SBMU, Sweden*

Ibrahim Al-Busaidi, Christchurch Public Hospital, New Zealand

Sausan Al Kawas, College of Dental Medicine, University of Sharjah, Utd.Arab.Emir.

Abdullah Alismail, Loma Linda University, USA

Mitra Amini, Shiraz Medical School, Iran

Elize Archer, Stellenbosch University, South Africa

Stefanie Attardi, Oakland University William Beaumont School of Medicine, USA

Yajnavalka Banerjee, MBRU, UAE

Sary Beidas, National University, USA

Joana Berger-Estilita, Inselspital, Bern University Hospital, Switzerland

Shoaleh Bigdeli, Center for Educational Research in Medical Sciences (CERMS), Department

of Medical Education, School of Medicine & University of Medical Sciences, Iran

Justin Bilszta, University of Melbourne, Australia

Malcolm Boyle, Monash University, Australia

Jan Breckwoldt, University of Zurich, Switzerland

Giampiera Bulfone, University of Catania, Italy

Bryan Burford, Newcastle University, UK

Annette Burgess, The University of Sydney, Australia

Jamiu Busari, School of Health Professions Education, Maastricht University, Netherlands

Tudor Calinici, Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca,

Romania

Sandra Carr, University of Western Australia, Australia

Caroline Carrico, Virginia Commonwealth University, USA

Bernard Cerutti, University of Geneva, Switzerland

Yu-Che Chang, Chang Gung Memorial Hospital, Taiwan

Fei Chen, University of North Carolina, USA

Yen-Yuan Chen, *Graduate Institute of Medical Education and Bioethics, National Taiwan University, Taiwan R.O.C.*

Derek Choi-Lundberg, University of Tasmania, Australia

Michael Co, University of Hong Kong, Hong Kong

Claire Condron, Royal College of Surgeons in Ireland, Ireland

Ian Couper, Stellenbosch University, South Africa Monica Cuddy, NBME, USA Angelo Dante, University of L'Aquila, Italy

Mayssoon Dashash, Damascus University, Syrian Virtual University, Syrian Arab. Rep.

Arnout Jan de Beaufort, Leiden University Medical Centre, Netherlands

Dianne Delva, University of Ottawa, Canada

Jacqueline Dias, University of Sharjah, Utd.Arab.Emir.

Rebecca Donkin, University of the Sunshine Coast, Australia

Robbert J Duvivier, The University of Newcastle, Australia

Daniel Edwards, Australian Council for Educational Research, Australia

Melih Elcin, *Hacettepe University, Turkey*

Lia Fluit, Radboud University Medical Center Nijmegen, Netherlands

Chan Choong Foong, University of Malaya, Malaysia

Roghayeh Gandomkar, Tehran University of Medical Sciences, Iran

Neil Gesundheit, Stanford University School of Medicine, USA

Saeideh Ghaffarifar, Tabriz University of Medical Sciences, Iran

Christina Gummesson, Malmö University and Lund University, Sweden

Shaista Salman Guraya, Royal College of Surgeons of Ireland - Medical University of Bahrain, Bahrain

Faizal Aminmohamed Haji, Queen's University, Canada

Wolfgang Hampe, University Medical Centre, Germany

Inam Haq, University of Sydney, Australia

Derek Harmon, The Ohio State University, USA

Sylvia Heeneman, Maastricht University, Netherlands

Michael Hortsch, University of Michigan Medical School, USA

Jianlin Hou, Peking University, China

Wendy Hu, Western Sydney University, Australia

Yera Hur, Hallym University College of Medicine / Journal of Educational Evaluation for

Health Professions, Korea

Sören Huwendiek, University Bern, Switzerland

Rintaro Imafuku, Gifu University, Japan

Vikram Jha, Independent advisor and consultant, India

Brian Jolly, The University of Newcastle, UK

Jaime Jordan, *David Geffen School of Medicine at UCLA, USA*Salah Eldin Kassab, *Faculty of Medicine, Suez Canal University, Egypt*Iain Keenan, *Newcastle University, UK*

Nagina Khan, Touro University Nevada, USA

Robin Klein, Emory University School of Medicine, USA

Claudia Krebs, The University of British Columbia, Canada

Lalit Krishna, National Cancer Centre Singapore, Singapore

Rashmi Kusurkar, VUmc School of Medical Sciences, Netherlands

Jason Last, University College Dublin, Ireland

Delyse Leadbeatter, The University of Sydney, Australia

Yong-Mee Lee, Korea University College of Medicine, South Korea

Shuh Shing Lee, National University of Singapore, Singapore

Kathleen Leedham-Green, Imperial College London, United Kingdom

Steven Lillis, The University of Auckland, New Zealand

Kayley Lyons, University of Melbourne, Australia

Mohi Eldin Magzoub, United Arab Emirates University, United Arab Emirates

Usman Mahboob, Khyber Medical University, Pakistan

Md Anwarul Azim MAJUMDER, Faculty of Medical Sciences, The University of the West Indies, Barbados

Bunmi Malau-Aduli, James Cook University, Australia

Ken Masters, Sultan Qaboos University, Oman

David Matheson, University of Wolverhampton, UK

Sandra Monteiro, McMaster University, Canada

Anthony Montogomery, University of Macedonia, Greece

Leili Mosalanejad, Jahrom university of Medical Sciences, Iran

Aloysius Gonzaga Mubuuke, Makerere University, Uganda

David Musick, Virginia Tech Carilion School of Medicine, USA

Thirusha Naidu, University of KwaZulu-Natal, South Africa

Curtise K. C. Ng, Curtin University, Australia

Hiroshi Nishigori, Kyoto University, Japan

Kathleen Norman, Queen's University, Canada

Champion N. Nyoni, University of the Free State, South Africa

Maree O'Keefe, The University of Adelaide, Australia

Methods for teaching evidence-based practice: a scoping review

This scoping review aims to gather and map inspiration, ideas and recommendations for teaching evidence-based practice across Professional Bachelor Degree healthcare

programmes by mapping literature describing...

Camilla Marie Larsen, Anne Seneca Terkelsen, Anne-Marie Fiala Carlsen and Hanne Kaae Kristensen

BMC Medical Education 2019 19:259

Research article | Published on: 11 July 2019

> Full Text > PDF

Community-based educational design for undergraduate medical education: a grounded theory study

Community-based education (CBE) is strategically important to provide contextual learning for medical students. CBE is a priority for countries striving for better primary health care. However, the CBE literat...

Mora Claramita, Elsa Pudji Setiawati, Tri Nur Kristina, Ova Emilia and Cees van der Vleuten

BMC Medical Education 2019 19:258

Research article | Published on: 11 July 2019

> Full Text > PDF

Junior doctors' early career choices do not predict career destination in neurology: 40 years of surveys of UK medical graduates

The rapidly rising rates of brain diseases due to the growing ageing population and the explosion in treatment options for many neurological conditions increase the demand for neurologists. We report trends in...

Atena Barat, Michael J. Goldacre and Trevor W. Lambert

RESEARCH ARTICLE

Open Access

Junior doctors' early career choices do not predict career destination in neurology: 40 years of surveys of UK medical graduates



Atena Barat, Michael J. Goldacre and Trevor W. Lambert to

Abstract

Background: The rapidly rising rates of brain diseases due to the growing ageing population and the explosion in treatment options for many neurological conditions increase the demand for neurologists. We report trends in doctors' career choices for neurology; investigate factors driving their choices; and compare doctors' original choices with their specialty destinations.

Methods: A multi-cohort, multi-purpose nation-wide study using both online and postal questionnaires collected data on career choice, influencing factors, and career destinations. UK-trained doctors completed questionnaires at one, three, five, and ten years after qualification. They were classified into three groups: graduates of 1974–1983, graduates of 1993–2002, and graduates of 2005–2015.

Results: Neurology was more popular among graduates of 2005–2015 than earlier graduates; however, its attraction for graduates of 2005–2015 doctors reduced over time from graduation. A higher percentage of men than women doctors chose neurology as their first career choice. For instance, among graduates of 2005–2015, 2.2% of men and 1.1% of women preferred neurology as first choice in year 1. The most influential factor on career choice was "enthusiasm for and commitment to the specialty" in all cohorts and all years after graduation. Only 39% who chose neurology in year 1 progressed to become neurologists later. Conversely, only 28% of practicing neurologists in our study had decided to become neurologists in their first year after qualification. By year 3 this figure had risen to 65%, and by year 5 to 76%.

Conclusions: Career decision-making among UK medical graduates is complicated. Early choices for neurology were not highly predictive of career destinations. Some influential factors in this process were identified. Improving mentoring programmes to support medical graduates, provide career counselling, develop professionalism, and increase their interest in neurology were suggested.

Keywords: Neurology, Physicians, Junior, Career choice, Workforce, Medical, Medical education

Background

As neurology is a medical specialty involving the diagnosis and treatment of patients with disorders of the nervous system [1], the demand for neurologists is growing faster than supply as a result of demographic changes which have increased the number of older individuals with degenerative neurological conditions; of accelerated progress in science, including

new discoveries in functional brain anatomy; the invention of advanced techniques for making a precise diagnosis; and the advent of subspecialisations within neurology [2].

According to a World Health Organisation report, in 2017 Europe had the highest median number of neurologists per 100,000 population (9.0) [3]. In 2014, the UK had 1.2 consultant neurologists per 100,000 population [4]. In comparison, it was estimated that 16,366 neurologists were practising in the US in 2012, with a neurologist to population ratio of 5.2 per 100, 000 [5].

Nuffield Department of Population Health, University of Oxford, Old Road Campus, Oxford OX3 7LF, UK



^{*} Correspondence: trevor.lambert@dph.ox.ac.uk
UK Medical Careers Research Group, Unit of Health-Care Epidemiology,

RESEARCH ARTICLE

Open Access

Methods for teaching evidence-based practice: a scoping review



Camilla Marie Larsen^{1,2,4*}, Anne Seneca Terkelsen¹, Anne-Marie Fiala Carlsen³ and Hanne Kaae Kristensen^{1,5}

Abstract

Background: This scoping review aims to gather and map inspiration, ideas and recommendations for teaching evidence-based practice across Professional Bachelor Degree healthcare programmes by mapping literature describing evidence-based practice teaching methods for undergraduate healthcare students including the steps suggested by the Sicily Statement.

Methods: A computer-assisted literature search using PubMed, Cinahl, PsycINFO, and OpenGrey covering health, education and grey literature was performed. Literature published before 2010 was excluded. Students should be attending either a Professional Bachelor's degree or a Bachelor's degree programme. Full-text articles were screened by pairs of reviewers and data extracted regarding: study characteristics and key methods of teaching evidence-based practice. Study characteristics were described narratively. Thematic analysis identified key methods for teaching evidence-based practice, while full-text revisions identified the use of the Sicily Statement's five steps and context.

Results: The database search identified 2220 records. One hundred ninety-two records were eligible for full-text assessment and 81 studies were included. Studies were conducted from 2010 to 2018. Approximately half of the studies were undertaken in the USA. Study designs were primarily qualitative and participants mainly nursing students. Seven key methods for teaching evidence-based practice were identified. Research courses and workshops, Collaboration with clinical practice and IT technology were the key methods most frequently identified. Journal clubs and Embedded librarians were referred to the least. The majority of the methods included 2–4 of the Sicily Statement's five steps, while few methods referred to all five steps.

Conclusions: This scoping review has provided an extensive overview of literature describing methods for teaching EBP regarding undergraduate healthcare students. The two key methods Research courses and workshops and Collaboration with clinical practice are advantageous methods for teaching undergraduate healthcare students evidence-based practice; incorporating many of the Sicily Statement's five steps. Unlike the Research courses and workshop methods, the last step of evaluation is carried out partly or entirely in a clinical context. Journal clubs and Embedded librarians should be further investigated as methods to reinforce existing methods of teaching. Future research should focus on methods for teaching EBP that incorporate as many of the five steps of teaching and conducting EBP as possible.

Keywords: Teaching methods, Undergraduate healthcare students, Evidence-based practice, The Sicily statement

Background

Dizon et al. state that healthcare can be inefficient, ineffective and/or dangerous when it is not based on current best evidence [1, 2]. Therefore, to ensure the quality of healthcare, it is important to implement evidence-based

practice (EBP) in all health professional curricula, so that future health professionals learn the fundamentals of research and the application of evidence in practice [2].

Several definitions of EBP have been suggested in recent years. The scientific evidence was initially developed within medicine, but as many health professionals have embraced an evidence-based way of practice the Sicily Statement [3] suggested that the original term "evidence-based medicine" should be expanded to "evidence-based

Full list of author information is available at the end of the article



^{*} Correspondence: cmla2@ucl.dk; cmla@ucl.dk

¹Health Sciences Research Centre, UCL University College, Niels Bohrs Allé 1, 5230 Odense M, Denmark

²Department of Physiotherapy, UCL University College, Niels Bohrs Allé 1, 5230 Odense M, Denmark