



April 2016

The ABCs of EBP: opportunities and challenges for evidence-based practice education in developing countries

Ramprasad Muthukrishnan
Gulf Medical University, mramprasad@rediffmail.com

Tatjana Ille
Gulf Medical University, aqua.40@live.com

Saravana Kumar
University of South Australia, saravana.kumar@unisa.edu.au

Follow this and additional works at: <https://nsuworks.nova.edu/ijahsp>

 Part of the [Medical Education Commons](#), [Public Health Commons](#), and the [Rehabilitation and Therapy Commons](#)

Recommended Citation

Muthukrishnan R, Ille T, Kumar S. The ABCs of EBP: opportunities and challenges for evidence-based practice education in developing countries. *The Internet Journal of Allied Health Sciences and Practice*. 2016 Apr 07;14(2), Article 7.

This Commentary is brought to you for free and open access by the College of Health Care Sciences at NSUWorks. It has been accepted for inclusion in *Internet Journal of Allied Health Sciences and Practice* by an authorized editor of NSUWorks. For more information, please contact nsuworks@nova.edu.

The ABCs of EBP: opportunities and challenges for evidence-based practice education in developing countries

The importance of embedding evidence-based practice as part curricula and practice is now well recognised in health disciplines. However, despite this recognition there continues to be ongoing challenges. Nowhere are these challenges more evident than in developing countries where a tsunami of challenges confronts health care stakeholders. This commentary sheds some light on opportunities and challenges for evidence-based practice education in developing countries.

Author Bio(s)

- Ramprasad, PhD, Post Doctoral Fellow (DST-CSI-Cognitive Science) is Assistant professor at Department of Allied Health Sciences, Gulf Medical University, Ajman, U.A.E.
- Tatjana M Ille, M.D. MSc, PhD is Professor and Head of General Education Department at Gulf Medical University.
- Saravana Kumar, PhD is a Senior Lecturer at the School of Health Sciences, University of South Australia. He is also a research leader at the International Centre for Allied Health Evidence.



Commentary: The ABCs of EBP -- Opportunities and Challenges for Evidence-Based Practice Education in Developing Countries

Ramprasad Muthukrishnan, PhD ¹
Tatjana Ille, M.D. MSc, PhD ¹
Saravana Kumar, PhD ²

1. Gulf Medical University, U.A.E
2. University of South Australia

U.A.E., Australia

The importance of embedding evidence-based practice as part of curricula and practice is now well recognised in health disciplines. However, despite this recognition, there continues to be ongoing challenges. Nowhere are these challenges more evident than in developing countries where a tsunami of challenges confronts health care stakeholders. This commentary sheds some light on opportunities and challenges for evidence-based practice education in developing countries.

In recent times, I have had the opportunity to travel to countries like India, Brunei Darussalam, and Singapore for personal and professional reasons. During these visits, invariably, I meet with allied health professionals, sometimes serendipitously (as was the case when I took my grandmother to see the local physiotherapist in India) and sometimes in a planned manner (as was the case when I met a number of physiotherapists from around the world at the World Confederation for Physical Therapy in 2015). Invariably, as allied health professionals, we often end up discussing our professional lives, our plans for the future, and where our professions are moving towards in order to meet the growing health care challenges of the 21st century. As a physiotherapist based in Australia, these meetings are always an eye opener for me as it highlights a range of complex issues that confront allied health professionals in developing countries (such as professional autonomy, meagre resources, clinical workload, patient expectations, and cultural differences, just to name a few).

Given my background as a teacher and researcher with interest in evidence-based practice (EBP), these discussions often end up about EBP. While it is always heartening to see the increasing profile of EBP in developing countries in recent years, it has also met with a barrage of barriers. The barriers to EBP seem to span the entire spectrum commencing at the level of teaching EBP, access to EBP, and application and implementation of EBP. Barriers to EBP are not uncommon with developed countries that are also confronted with this challenge. However, as a teacher, this is most concerning to me as if there are barriers at the level of teaching EBP, then the next generation of allied health professionals may not have the knowledge and skills for EBP, resulting in a cascading effect in terms access to and application and implementation of EBP in clinical practice. With developing countries now facing numerous health care challenges for which EBP could provide solutions, barriers to teaching EBP may result in future health care professionals not having EBP knowledge, skills, and competencies to use in clinical practice. Barriers to teaching EBP in developing countries have been previously reported.

Devdeep and Banerjee reported on a range of barriers from Indian student physiotherapists' perspectives.¹ These barriers include a) lack of internet access, b) non-availability of electronic database subscriptions, c) lack of training in critical appraisals, d) absence of EBP competencies in curriculum, e) sociocultural aspects of applying evidences, f) physician centred physical therapy delivery, g) absence of support from governmental, institutional, governing body, and h) lack of facilitators. Gorgon, Basco, and Manuel studied Philippines's physiotherapy curriculum and indicated significant gaps in EBP content, clinical teaching, and assessment methods.² Ateef indicated that Saudi Arabian physiotherapy students rarely review evidence based practice resources due to busy

academic and clinical schedules and were only partially aware of EBP.³ The problem is further compounded by research outputs needed for EBP not focusing larger burdens of illness among the local population such as stroke, asthma, and non-communicable disorders.⁴ Further challenges include reliance on ready-made evidence (rather than undertaking the process of accessing and evaluating research evidence by self), lack of role models and expert clinical practitioners practicing EBP, lack of EBP culture, and limited resources for EBP, especially in rural and remote areas.^{5,6}

While these challenges remain, there are also opportunities for evidence-based practice education in developing countries. A range of models of EBP education have been reported in the literature, which could be utilised to upskill students and health professionals in EBP competencies. Some of these include graded EBP exposure and integration, supervised clinical training to improve EBP core skills, role modelling, assisting learners at every step particularly framing questions (for example using the PICO framework: Patient, Intervention, Comparator, Outcome), literature searching, and critical appraisal, in addition to EBP education programs which are tailored to meet the needs of the local population, continuing education methods such as workshops and journal clubs delivered as part of ongoing continuous EBP learning opportunities, and reflective practice methods where students perform independently, selecting evidence from reliable resources and focusing life-long learning EBP competencies.^{7,8,9,10,11,12,13,14,15} This is an instance where one size does not fit all, and various strategies will need to be tried and tested to verify what works for who, when, why, and how.

While much of the focus on EBP to date has been on the developed world, given the demographic and the geopolitical shift towards developing countries, it is timely to shift our focus to these parts of the world. While the barriers to EBP are common to both developed and developing countries, it is likely the influence of these barriers differs among these nations. While the developed world, for the most part, faces barriers to EBP in the implementation and translational aspect, the developing world faces barriers to EBP much earlier – in the teaching EBP. Therefore, it is vital that education about EBP should occur at various levels, commencing at entry level at universities and colleges, continuing at the workplace, and championed by professional organisations, employers, and communities at large. The focus on EBP education should be complemented with research on EBP education in these settings, as merely replicating what has worked in developed countries may not be generalizable or transferrable to these differing contexts. Without such explicit focus on EBP education in developing countries, it is likely a whole generation of allied health professionals may miss out on the basic knowledge and skills of EBP, ultimately impacting the quality and safety of health care in these countries.

REFERENCES

1. Devdeep A, Banerjee G. Barriers to, and strategies for implementation of evidence based practice in physiotherapy in India- A discussion paper. *Baba Farid University Physiotherapy Journal*. 2012; 1: 4-11.
2. Gorgon EJ, Basco MD, Manuel AT. Teaching evidence based practice in physical therapy in a developing country: a national survey of Philippine schools. *BMC Med Educ*. 2013; 13: 154.
3. Ateef M. Evidence-based learning and practice in physical therapy: A need for novice physical therapists. *Saudi J Sports Med*. 2015; 15: 106-7.
4. Hariom K, Prakash V, Saravankumar J. Quantity and quality of randomized controlled trials published by Indian physiotherapists. *Perspect Clin Res*. 2015; 6: 91-7.
5. Olsen NR, Bradley P, Lomborg K, Nortvedt MW. Evidence based practice in clinical physiotherapy education: a qualitative interpretive description. *BMC Med Educ*. 2013; 11: 52.
6. Barnard S, Rose W. Evidence-based Physiotherapy: Physiotherapists' attitudes and experiences in the Wessex area. *J Physiother*. 2001; 87: 115–24.
7. Korenstein D, Dunn A, McGinn T. Mixing it up: integrating evidence-based medicine and patient care. *Acad Med*. 2002; 77: 741-42.
8. Hankemeier DA, Van Lunen BL. Approved clinical instructors' perspectives on implementation strategies in evidence-based practice for athletic training students. *J Athl Train*. 2011; 46: 655-64.
9. Dizon JM, Grimmer-Somers K, Kumar S. Effectiveness of the tailored Evidence Based Practice training program for Filipino physical therapists: a randomized controlled trial. *BMC Med Educ*. 2014; 17: 147.
10. Kok R, Hoving JL, Verbeek JH, Schaafsma FG, Smits PB, van Dijk FJ. Evaluation of a workshop on evidence-based medicine for social insurance physicians. *Occup Med*. 2008; 58: 83.
11. Taheri H, Mirmohamadsadeghi M, Adibi I, Ashorion V, Sadeghizade A, Adibi P. Evidence-based medicine (EBM) for undergraduate medical students. *Ann Acad Med*. 2008; 37: 764-68.
12. Lizarondo LM, Grimmer-Somers K, Kumar S, Crockett A. Does journal club membership improve research evidence uptake in different allied health disciplines: a pre-post study. *BMC Res Notes*. 2012; 5: 588.
13. Lizarondo L, Kumar S, Grimmer-Somers K. Online journal clubs: an innovative approach to achieving evidence-based practice. *J Allied Health*. 2010; 39:e17-22.

14. Marie ED, Morss K. Guided reflection: A framework to facilitate and assess reflective practice within the discipline of physiotherapy, Guided reflection: A framework to facilitate and assess reflective practice within the discipline of physiotherapy. *Physiother Theory and Pract.* 2000; 16: 3-14.
15. Frantz JM, Rowe M. Developing reflection and research skills through blogging in an evidence-based practice postgraduate physiotherapy module. *African Journal of Health Professions Education.* 2013; 5: 3-7.