

Developing a multi-modality complementary medicine practice-based research network: The PRACI project



Amie Steel^{a,b,*}, Jon Adams^a, David Sibbritt^a

^a Australian Research Centre in Complementary and Integrative Medicine (ARCCIM), Faculty of Health, University of Technology, Sydney, Australia

^b Office of Research, Endeavour College of Natural Health, Australia

ARTICLE INFO

Article history:

Received 20 November 2014

Received in revised form 26 November 2014

Accepted 26 November 2014

Keywords:

Complementary therapies
Evidence-based practice
Community-based participatory research
Translational research

ABSTRACT

Objectives: Outline the protocol to be used in the establishment of the Practitioner and Researcher Collaboration Initiative (PRACI) – an innovative national practice-based research network (PBRN) for complementary medicine (CM) professions in Australia.

Design and methods: A multiphase research design will be employed. Phase 1 will involve geographical mapping of CM practitioner workforce population and location across Australia. Phase 2 involves initial practitioner member recruitment encompassing a preliminary workforce survey to allow population of key information for the PRACI database. Phase 3 will employ a comprehensive practitioner member survey which examines the nature and characteristics of contemporary CM practice.

Results: PRACI will be a multi-modality PBRN which encompasses 14 CM professions: acupuncturists, aromatherapists, Ayurveda practitioners, Bowen therapists, Chinese herbalists, homoeopaths, kinesiologists, massage therapists, musculoskeletal therapists, myotherapists, naturopaths, nutritionists (non-dietetic), reflexologists, Western herbalists, and yoga teachers. Once established, researchers will be able to utilise the PRACI network and infrastructure to undertake CM research which is embedded in, responsive to, and informed by clinical practice. An Expression of Interest (EOI) process by which potential new research through PRACI is vetted based upon feedback by researchers, community representatives and practitioner members. The PRACI network will enable a broad range of research designs including experimental, observational and qualitative research. As such, research conducted through PRACI will be able to examine important research questions and advance new knowledge about contemporary CM practice.

Conclusions: PRACI is a practice-based research network which has the potential to offer the CM professions a legacy of clinically relevant research which is embedded in the realities of practice and which can provide a platform for future critical investigation and rigorous enquiry.

© 2014 Elsevier Ltd. Open access under CC BY-NC-ND license.

What is already known about this topic:

- Practice-based research networks (PBRNs) afford valuable infrastructure to facilitate formal collaborations between community-based practices and academic institutions.
- PBRNs provide an opportunity for important research questions identified by practitioners in grass-roots clinical practice (but otherwise often neglected by researchers) to be repositioned as central to critical, rigorous research enquiry.

- PBRNs enable a broad range of research methods and disciplines which relate to not only clinical outcomes but also the nature of clinical practice.
- The potential for PBRNs to support complementary medicine research has not been fully realised in Australia.
- The majority of CM professions do not have sufficient workforce numbers to independently support the infrastructure necessary to sustain an effective PBRN.

What this paper adds:

- The Practitioner Research and Collaboration Initiative (PRACI) is being established in Australia as an innovative multi-modality PBRN for CM professions.

* Corresponding author at: Office of Research, Endeavour College of Natural Health, Australia. Tel.: +61 732539523; fax: +61 732571889.

E-mail address: Amie.steel@uts.edu.au (A. Steel).

- PRACI provides shared infrastructure to support CM research in 14 CM professions.
- The establishment of PRACI involves a multiphase research project which will also afford important insights into contemporary CM practice in Australia.
- The PRACI database is open to any researchers undertaking research projects which align with the core mission of PRACI via a formal Expression of Interest (EOI) process.
- The ability for PRACI to generate new knowledge regarding CM, translate the findings of research projects into grass-roots practice, and implement policy guidelines developed in response to PRACI research hinges on the drive and dedication of member practitioners.

1. Background

In an era of evidence-based practice, the importance of practice-relevant research in complementary medicine (CM) has never been greater [1]. Uncertainty about the quantity, quality and applicability of existing research to those in clinical practice have been raised in recent years from within and outside CM practice [2,3]. Reasons for these concerns have often included: an inability to access research funding for CM projects [4]; paradigmatic issues limiting the applicability of randomised-controlled trials [5]; insufficient research training amongst the CM practitioner community [6,7]; controlling for the complexity of CM care and the role of placebo [8]; and a dislocation between the research produced and the questions facing clinicians in practice [3,6]. As such, there is significant room for further development of research methods and disciplinary perspectives which are not only broad but are also responsive to the clinical questions which arise for practitioners in grass-roots practice.

A crucial challenge which has confronted CM research in Australia and elsewhere to date has been disconnect between practitioners and researchers. This has meant that despite growing areas of research excellence [9–11] many areas of CM remain overlooked and many of the developments are restricted to focused areas of researcher interest with little consideration for the broader expansion of CM research outside arenas such as the United States [10]. Increased practitioner involvement with research has the capacity to benefit CM research helping inform study designs to ensure research questions and interventions are both robust and clinically relevant [6].

CM practitioners can also directly benefit from involvement in a PBRN through the development of new clinical techniques and knowledge with which to treat patients, as well as skills in critically assessing latest developments in their field [7]. However, despite a number of initiatives to enhance the collaboration between researchers and CM practitioners [7,9], the gap between academic institutions and CM practice remains substantial and a new approach focused specifically on the researcher–practitioner interface is needed. In response, this paper outlines the protocol of a new initiative in the CM research landscape which applies the well-established practice-based research network (PBRN) approach to the unique needs of a broad cross-section of Australian CM professions.

2. Practice-based research networks

A practice-based research network (PBRN) is a group of ambulatory practices that affiliate together and collaborate with academic institutions for the purpose of conducting research using data collected from practitioners and patients, and to ultimately improve the quality of patient care [12,13]. PBRNs have been growing in popularity globally since the 1960s [14,15] and provide

a vehicle through which research questions directly grounded in daily practice can be linked with critical and rigorous research methods [12]. PBRNs provide an opportunity for important research questions identified by practitioners in grass-roots clinical practice (but otherwise often neglected by researchers) to be repositioned as central to critical, rigorous research enquiry.

Characteristics of a PBRN vary in a number of ways including member composition, affiliation, and size. However there are a number of key characteristics which appear to be common amongst many PBRNs based upon an audit of PBRNs undertaken by the Agency for Healthcare Research and Quality in the United States [12]. Firstly, PBRNs include at least 15 ambulatory practices and/or 15 clinicians devoted to the primary care of patients. Secondly, a statement of the PBRN's purpose and mission, including an ongoing commitment to research, is developed. There is also commonly a director who is responsible for administrative, financial and planning functions, as well as support staff of at least one person reporting to the director. A community advisory board or similar is often in place to solicit advice and feedback from the communities of patients served by the PBRN clinicians. The PBRN has an organisational structure independent of any single study and, finally, there are communication processes in place (e.g. newsletters, emails, conference calls, etc.). Ultimately, the process of establishing and maintaining a PBRN requires a great deal of infrastructure and the cost of sustaining this infrastructure is one of the most substantial barriers to successful PBRNs [16].

3. The opportunities of PBRNs for CM practice and practitioners

Within complementary medicine and integrative medicine, PBRNs have been established in a number of countries including the United States [12,17,18], and United Kingdom [19], however unlike conventional health PBRNs [12], these networks commonly focus on a single profession. Similarly within Australia, despite the strong foundations and growth in primary care PBRN [20] this model of research has not yet been extended to include CM. Alongside this gap, there have also been global concerns that insufficient attention is being given to important research questions which relate directly to the context, meaning and outcomes of CM care in pragmatic clinical settings [21].

As a potential solution to address these gaps in CM research, PBRNs enable a range of broad range of research methods and disciplines which relate to not only clinical outcomes but also the nature of clinical practice. Examples of important research questions which can be meaningfully addressed in PBRN studies include: What is the most effective CM treatment of common diseases and symptoms? How is care co-ordinated for patients of CM practitioners? What is the nature, characteristics and organisation of CM product distribution and use? What is the interface between CM practice and other health care providers and services? How do patients of CM make decisions about health care and health practices for themselves, their families, and the community? By addressing these questions, and many more, a PBRN affords the CM sector the opportunity to develop a rich and broad understanding of the effectiveness, safety, and cost-effectiveness of CM alongside the perceived value of CM held by users.

There are a number of advantages to the establishment of a PBRN for clinicians [12]. One such advantage is the ability for the clinician to directly and personally contribute to the creation of new knowledge and advancement of clinical insights within their field [12]. In particular, this feature of PBRNs overcomes one of the major challenges facing the CM research community – through clinician involvement the capacity for ‘up-driven’ research whereby clinicians are driving the research questions can be realised. In addition, facilitating researcher access to clinical sites

to undertake innovative research projects can remove one of the barriers to meaningful CM research and encourage researchers to commit to more substantial CM studies. Another advantage is tied to the network dynamics of the PBRN which has been found to encourage clinicians to feel more connected to a like-minded community of peers [12]. In the case of CM this can be particularly important due to the number of practitioners in independent practice. Finally, clinician involvement in PBRNs has been found to improve the quality of care provided to patients [12].

4. The complementary medicine professions in Australia

The complementary medicine professions are somewhat nebulous communities due primarily to the absence of a central register for the majority of professional groups. Based on Australian Bureau of Statistics (ABS) data, the CM workforce in Australia is estimated at 19,401 [22], including chiropractors ($n = 2488$), osteopaths ($n = 777$), massage therapists ($n = 8191$), naturopaths ($n = 2982$), TCM practitioners ($n = 483$), homoeopaths ($n = 238$), acupuncturists ($n = 946$), and others ($n = 3296$). However, this figure only reflects those who identify a CM profession as their primary occupation and excludes those with other professional roles who also integrate CM treatments or provide CM care as a secondary occupation.

Reinforcing the potential inaccuracy of the ABS figures is the comparative difference in registered CM workforce figures available through the Australian Health Practitioner Regulation Agency (AHPRA) which reports 4294 chiropractors, 1595 osteopaths, and 4000 Chinese medicine practitioners [23]. In addition to these registered professions there are a range of unregistered CAM practitioners and it is difficult to gauge the numbers on these, particularly given the disparity between the ABS data and AHPRA figures for the registered professions. Attempts to estimate workforce numbers based on professional association membership (~31,000) [23] are flawed by the fact that a number of practitioners are members of more than one association [24].

The implication of these workforce figures on the establishment of a PBRN for many of these professions in Australia is that the ability for one profession *alone* to support the necessary PBRN infrastructure may be limited. Whilst some CM professions may have enough critical mass to enable effective PBRN development, many professions do not. For this reason, a mixed practitioner network is warranted whereby multiple professions which are aligned to a shared mission and/or political location in the health care system can share resources and infrastructure to enable the development of a robust and sustainable PBRN for the benefit of their professions both individually and collectively.

5. The establishment of PRACI: Practitioner Research and Collaboration Initiative

The Practitioner Research and Collaboration Initiative (PRACI) is a scheme developed by Endeavour College of Natural Health with the support of the Australian Research Centre in Complementary and Integrative Medicine (ARCCIM), University of Technology Sydney and launched in October 2014. The mission for PRACI is to *build a collaboration to improve the health of our community by mobilising complementary medicine health care professionals, community members, and researchers, and by conducting national collaborative practice-based research*. The title PRACI, pronounced “Praccie” has been chosen as it is a commonly used collegial term amongst CM practitioners which refers to a person actively engaged in an art, discipline, or profession. This title/acronym symbolises the grass-roots practice orientation central to the PRACI initiative.

6. Aim

The aim of PRACI is to establish a collaborative research network of a range of CM professional groups including acupuncturists, aromatherapists, Ayurveda practitioners, Bowen therapists, Chinese herbalists, homoeopaths, kinesiologists, massage therapists, musculoskeletal therapists, myotherapists, naturopaths, nutritionists (non-dietetic), reflexologists, Western herbalists, and yoga teachers.

The establishment of PRACI will involve two key aims:

1. To systematically map the workforce and practice characteristics for each discrete profession.
2. To develop a database of practitioner member participants to form the basis of a mixed modality practice-based research network.

7. Project design

The project will employ a multiphase design (see Fig. 1). Through Phase 1 the constituency of a number of primary care CAM practitioner groups will be mapped on a national scale. Following this, practitioners will be invited in Phase 2 to complete a short survey examining practice characteristics and professional profile. Respondents from Phase 2 will also be invited to have their details retained on a research network database for future research including implementation of Phase 3. Finally, Phase 3 will involve the administration of a more comprehensive survey to examine additional details of contemporary CM practice for each professional group.

7.1. Phase 1

The first phase of this project will involve an infrastructure audit of CM practitioner groups through the use of techniques which demonstrate not only the location of practitioners across Australia but also the areas of highest and lowest concentration as well as analysing geographic relationships to other professions. The methods for this project will replicate previous work undertaken in rural NSW [25]. Publicly available data, including practitioner lists of professional associations and web site listing, will be accessed in an attempt to quantify the size of the Australian naturopathic, acupuncturist, homoeopathic, and nutritionist workforce. These practitioner groups are more likely than the other CM practitioners included in PRACI to present as primary care providers due to their broad scope of practice [25]. Practitioners identified through these lists will be cross-referenced to remove duplications. The available data will be imported into a geographic information system (GIS) for spatial visualisation [25].

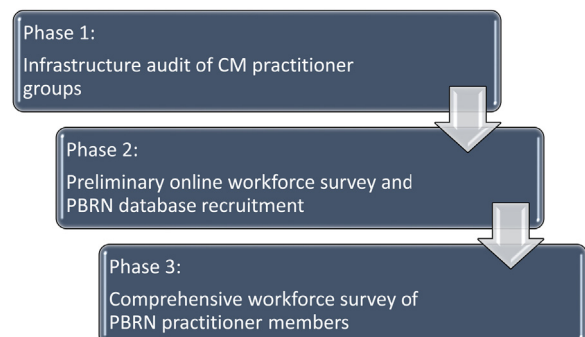


Fig. 1. PRACI project design overview.

7.2. Phase 2

Practitioners from all CM professions of interest for the PRACI project will be invited to participate in a preliminary online workforce survey examining baseline practice characteristics. This survey will gather the preliminary information necessary for the establishment of the database. The survey will target key information required to obtain a broad overview of practice and practitioners including: level of qualification, fields of qualification, years since first qualification, number of patients/clients seen per week, specialisations, gender, locality, average charge per consult, number of hours per week consulting, etc. Participants will also be invited to provide permission for their contact details to be stored on a research practice database for future research. The database will be stored on a secure network and personal details on the database will only be accessible to staff approved by the research team. Recruitment for Phase 2 will occur through key stakeholder organisations including professional associations and industry bodies. In addition, invitations will be shared through CM practitioner social media sites. Surveys will be primarily disseminated via email invitation and through paper-based invitation brochures and advertisements where appropriate. The use of each method will be determined in consultation with each stakeholder organisation. To assist with recruitment and practitioner confidence, a logo has been developed for PRACI (Fig. 2) which will be used in all communications with the practitioner community. Practitioners who choose to participate in the project will be given the opportunity to win a blender (Froothie Optimum 9400) in acknowledgement of their contribution. In addition, promotional collateral will be generated for use by practitioners choosing to join the PRACI database which can be used within their clinic or on their website to inform their clients of their involvement in the research network.

7.3. Phase 3

The final phase of the research project will involve a survey of CM practice through the participants registered on the research database. This survey will be much more detailed than the survey completed in Phase 2 and will aim to undertake a nuanced exploration of contemporary CM practice. The contents of the survey will be developed by representatives from the steering committee based on a comprehensive literature review of CM workforce data internationally but also Australian health workforce data for other professions. The survey is expected to examine a range of factors including nature of practice, practice descriptors, non-CAM qualifications, use of tests and therapies, interprofessional dynamics, practice economics, occupational satisfaction, clinical experience, self-care and personal wellbeing, and professionalisation and professional engagement. Surveys will be disseminated to all database participants via their preferred channel of communication (email). All data will be de-identified prior to analysis to protect the confidentiality of respondents.

This third phase of the PRACI project has been developed in response to the current gap in CM workforce data in Australia due



Fig. 2. Practitioner Research and Collaboration Initiative (PRACI) logo.

in part to the limitations of existing workforce surveys and audits [22,24,26–28]. Data from the ABS only include those who identify CAM as their primary source of income [22]. The recent work published by Grace et al. [24,26] have conflated their results together so that it is impossible to draw conclusions from discrete professions. The more systematic work undertaken by Wardle et al. [27] provides adequate data on numbers and distribution of practitioners from specific professions but this work was restricted to rural NSW and did not examine any other aspects of practice behaviour or characteristics. Studies that provided a more comprehensive examination of practice centred on one profession and focused on a specific setting (e.g. pharmacy) [28] or present data which is over 10 years old and may not reflect contemporary practice [29]. As such, there is a need for a comprehensive analysis of CAM professional practice behaviour and characteristics at a national level.

8. Ethical considerations

The PRACI project has been approved by the Human Research Ethics Committees for the University of Technology Sydney (#2014000390) and Endeavour College of Natural Health (HREC#2014033). Responses to the Phase 2 survey will be anonymous unless participants choose to be part of the PBRN database. Those CM practitioners electing to join the PBRN will be allocated a member identification code (MIC) and their survey responses will be added to the database under their MIC. A separate and distinct database will be developed which will link each participant's name and contact details with their corresponding MIC (see Fig. 3). Personal information will not be available to individuals outside the PRACI project team. Participants are free to discontinue their participation in the project at any time with no penalty. The results from the Phase 2 survey will be disseminated through peer-reviewed publication but all findings will be presented as cumulative statistics and no identifiable characteristics of participants will be shared.

9. Future projects

The overarching purpose of PRACI is to facilitate collaboration between researchers and practitioners within CM. As such, upon establishment of the database, an Expressions of Interest (EOI) process will be implemented (see Fig. 4). Through the EOI process, researchers will be invited to submit applications to undertake studies through PRACI. A diverse range of study designs which will be considered through the EOI process including experimental (e.g. randomised-controlled trials), observational (e.g. case-control, cohort, etc.) and qualitative (e.g. ethnography, grounded theory, etc.) designs. The PRACI Steering Committee, constituting researchers, community representatives and CM practitioners, will be responsible for vetting EOIs for proposed studies to ensure the work is in line with the core mission of PRACI and that clinicians within the network are not overburdened. EOIs may

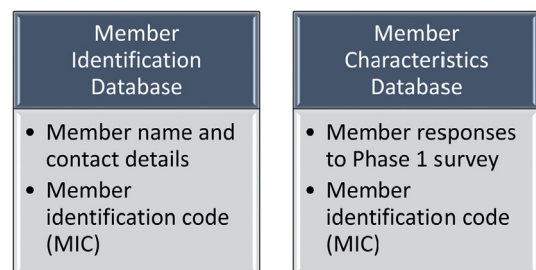


Fig. 3. Process and infrastructure for maintaining confidentiality of member information on the PRACI database.

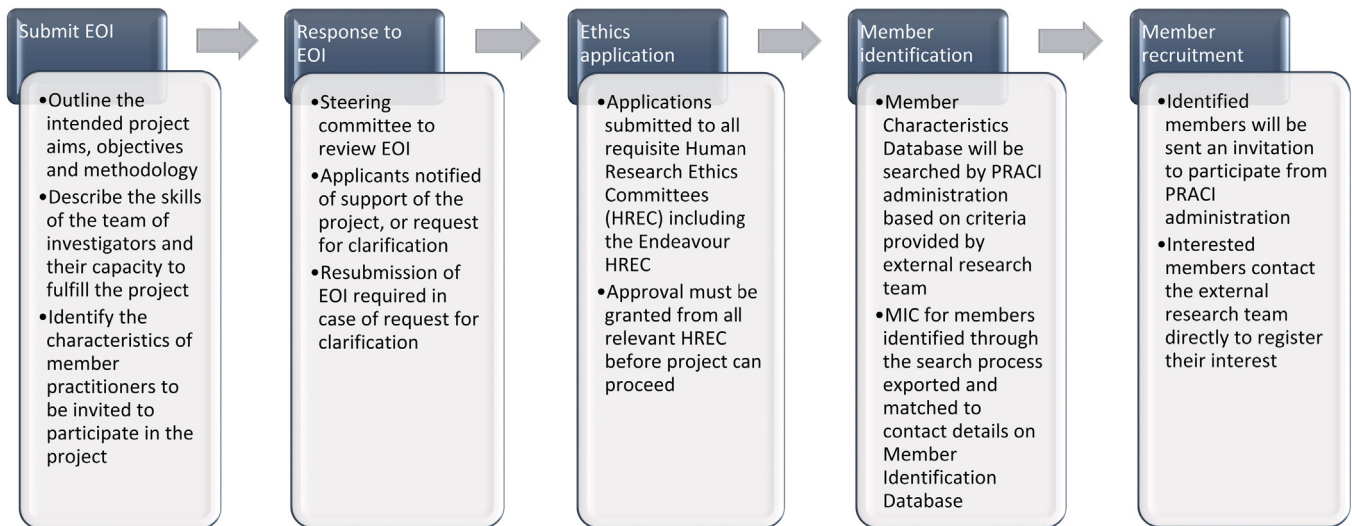


Fig. 4. Expression of Interest (EOI) and member recruitment process for research projects to be conducted through PRACI.

come from a variety of sources including directly from clinician members (known as ‘bottom up’ research), principal investigators external to PRACI, potential funders, and Endeavour College of Natural Health staff. Each study concept, irrelevant of the source, will be evaluated by the PRACI Steering Committee in response to the following questions: Is this a researchable question? Is PRACI the best place to answer the question? Does this study fit with the mission of PRACI? Is this study fundable? Once an EOI is approved by the Steering Committee, the interest of the clinician membership of PRACI is assessed. This occurs before practice recruitment to validate sufficient member interest in a study topic to meet recruitment goals. The cumulative outcome of these steps is meaningful, relevant, and transferable CM research which is not only supported by CM clinicians but is informed by their direct input.

10. The importance of CM practitioner involvement

The success of any PBRN centres on CM practitioners committing to the project as active members [30] and PRACI is no different in this respect. The ability for PRACI to generate new knowledge regarding CM, translate the findings of research projects into grass-roots practice, and implement policy guidelines developed in response to PRACI research hinges on the drive and dedication of member practitioners. CM practitioners will be involved at all levels of the PRACI project including representation on the steering committee. Practitioner members will gain by their involvement in PRACI through the acquisition of new skills which can support their practice and optimise patient outcomes. In addition, practitioner members of PRACI will have the benefit of knowing that they are contributing to a legacy of sustainability of their profession through advancing new knowledge about CM clinical practice.

11. Conclusions

PBRN research provides a valuable, unique opportunity for CM by enhancing research capacity within the CM professions and facilitating collaboration between CM practitioners and researchers. Many CM professions, however, have too few practitioners to be able to support the necessary infrastructure to sustain an effective PBRN. The PRACI project is an innovation in PBRN research in Australian health care research and international CM research in that it provides shared infrastructure across multiple

CM modalities. In doing so PRACI affords an opportunity for advancement of knowledge of CM practice through meaningful and relevant CM research. PRACI has the potential to offer the CM professions a legacy of clinically relevant research which is embedded in the realities of practice and which can provide a platform for future critical investigation and rigorous enquiry.

Acknowledgement

This project is funded by the Endeavour College of Natural Health.

References

- [1] Hunter A, Grant A. Complementary medicine and evidence-based practice: power and control in healthcare. *Evid-Based Integr Med* 2005;2(4):189–94.
- [2] Australian Medical Association. Position statement – complementary medicine; 2012. <https://ama.com.au/position-statement/complementary-medicine-20122012> [cited 23.09.14].
- [3] Steel A, Adams J. The interface between tradition and science: naturopaths’ perspectives of modern practice. *J Altern Complement Med* 2011;17(10):967–72.
- [4] Wardle J, Adams J. Are the CAM professions engaging in high-level health and medical research? Trends in publicly funded complementary medicine research grants in Australia. *Complement Ther Med* 2013;21:746–9.
- [5] Verhoef MJ, Lewith G, Ritenbaugh C, Boon H, Fleishman S, Leis A. Complementary and alternative medicine whole systems research: beyond identification of inadequacies of the RCT. *Complement Ther Med* 2005;13(3):206–12.
- [6] Wardle J. Involve complementary medicine practitioners in research. *BMJ* 2008;3(337):a2389.
- [7] Steel A, McEwen B. The need for higher degrees by research for complementary medicine practitioners. *Aust J Herb Med* 2014;26(4).
- [8] Greco CM, Glick RM, Morone NE, Schneider MJ. Addressing the “it is just placebo” pitfall in CAM: methodology of a project to develop patient-reported measures of nonspecific factors in healing. *Evid-Based Complement Altern Med* 2013;2013.
- [9] ARCCIM. Australian research centre in complementary and integrative medicine www.uts.edu.au/health/arccim: Faculty of Health, University of Technology Sydney; 2014 [22.09.14].
- [10] (NCCAM) NCFCaAM. Congressional justification; 2015. <http://nccam.nih.gov/about/budget/congressional/20152014> [cited 25.11.14].
- [11] World Health Organisation. WHO collaborating centres for traditional medicine; 2014. <http://www.who.int/medicines/areas/traditional/collabcentres/en/2014> [cited 25.11.14].
- [12] Davis MM, Keller S, DeVoe JE, Cohen DJ. Characteristics and lessons learned from practice-based research networks (PBRNs) in the United States. *J Healthcare Leadersh* 2012;4:107–16.
- [13] Graham DG, Spano MS, Stewart TV, Staton EW, Meers A, Pace WD. Strategies for planning and launching PBRN research studies: a project of the Academy of Family Physicians National Research Network (AAFP NRN). *J Am Board Fam Med* 2007;20(2):220–8.
- [14] Lindbloom EJ, Ewigman BG, Hickner JM. Practice-based research networks: the laboratories of primary care research. *Med Care* 2004;42(4):III-45–49.

- [15] Thomas P, Griffiths F, Kai J, O'Dwyer A. Networks for research in primary health care. *BMJ* 2001;322(7286):588–90.
- [16] Green LA, White LL, Barry HC, Nease DC, Hudson BL. Infrastructure requirements for practice-based research networks. *Ann Fam Med* 2005;3(Suppl. 1):s5–10.
- [17] Bravewell Collaborative. Bravenet – the practice-based research network; 2014. http://www.bravewell.org/transforming_healthcare/models_for_change/bravenet_research/2010 [cited 25.11.14].
- [18] Hawk C. ICON: a new practice-based research network with a focus on wellness. *ChiroACCESS*; 2011. <http://www.chiroaccess.com/Articles/ICON-A-New-Practice-Based-Research-Network-with-a-Focus-on-Wellness.aspx?id=0000241> [cited 25.11.14].
- [19] International Chiropractic Pediatric Association. The ICPA Practice Based Research Network (PBRN); 2014. <http://icpa4kids.com/research/PBRN/ABOUT.htm> [cited 25.11.14].
- [20] Family Medicine Research Centre. Bettering the evaluation of care of health (BEACH). University of Sydney; 2014. <http://sydney.edu.au/medicine/fmrc/beach/> [cited 25.11.14].
- [21] Fischer FH, Lewith G, Witt CM, Linde K, von Ammon K, Cardini F, et al. High prevalence but limited evidence in complementary and alternative medicine: guidelines for future research. *BMC Complement Altern Med* 2014;14(1):46.
- [22] Leach M. Profile of the complementary and alternative medicine workforce across Australia, New Zealand, Canada, United States, and United Kingdom. *Complement Ther Med* 2013;21:364–78.
- [23] Grace S. CAM practitioners in the Australian health workforce: an under-utilized resource. *BMC Complement Altern Med* 2012;12:205.
- [24] Grace S, Rogers S, Edey S. The natural medicine workforce in Australia: a national survey: Part 2. *J Aust Tradit Med Soc* 2013;19(2):79–86.
- [25] Wardle J, Adams J, Magalhães RJS, Sibbritt D. Distribution of complementary and alternative medicine (CAM) providers in rural New South Wales, Australia: a step towards explaining high CAM use in rural health? *Aust J Rural Health* 2011;19(4):197–204.
- [26] Grace S, Rogers S, Edey S. The natural medicine workforce in Australia: a national survey: Part 2. *J Aust Tradit-Med Soc* 2013;19(2):79.
- [27] Wardle J, Adams J, Soares Magalhaes RJ, Sibbritt D. Distribution of complementary and alternative medicine (CAM) providers in rural New South Wales, Australia: a step towards explaining high CAM use in rural health? *Aust J Rural Health* 2011;19:197–204.
- [28] Braun L, Spitzer O, Tiralongo E, Wilkinson J, Bailey M, Poole S, et al. The prevalence and experience of Australian naturopaths and Western herbalists working within community pharmacies. *BMC Complement Altern Med* 2011;11:41.
- [29] Bensoussan A, Myers SP, Wu S, O'Connor K. Naturopathic and Western herbal medicine practice in Australia—a workforce survey. *Complement Ther Med* 2004;12(1):17–27.
- [30] Calmbach WL, Ryan JG, Baldwin L-M, Knox L. Practice-based research networks (PBRNs): meeting the challenges of the future. *J Am Board Fam Med* 2012;25(5):572–6.