

UKCP Report on Practice Research Networks

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Introduction

This literature review has been undertaken by the UKCP Research Unit at Roehampton University to, as requested, identify relevant studies from a cross-section of representative material on Practice Research Networks (PRNs), review this information, summarize and highlight the key findings. The intention has been to review the context of the establishment of PRNs, and present the evidence in terms of the possible relevance of a PRN to the UKCP. Examples of PRNs have been included that are both more and less collaborative in terms of the relationship between the practitioner-researchers and the prioritisation and design of research projects in order that the differences in structure and organisation are made clear.

Approach and Scope

The literature review below explores a range of PRNs from different disciplines and the key findings are presented in terms of development, implementation, scope, diversity, strengths and limitations. As well as peer-reviewed literature on PRNs or Practice Based Research Networks (PBRNs) as they are also often referred to, information published by individual or federations of PRNs has been examined for details on, for example, organisational structure and both previous and ongoing research projects.

As indicated by van Weel (van Weel 2002:62) the different targets and organisational requirements of various PRNs make the concept of a standardised model problematic. Therefore, particularly in terms of development and implementation, specific examples

have been chosen which could be seen to be illustrative of key relevant features of certain named PRNs rather than trying to draw conclusions about an optimal generic PRN model.

Definition

The concept of the practice research network is to provide ‘an alternative to traditional clinical studies’ (Smith et al 2005b: 285) and according to advocates, can be ‘an effective strategy in narrowing the gap between practice and research’ (El-Guebaly & Atkinson 2004: 56; see also Goldfried & Wolfe 1996; Borkovec 2004). The concept originated in the 1970’s from the project at the Nijmegen Department of General Practice and ‘was designed to collect data on health related issues’ (Smith et al 2005b: 285), undoubtedly linked, at least within the field of mental health to issues of accountability and efficacy. ‘PRNs provide the infrastructure to enable discrete services within a geographical region to collaborate on audit and evaluation ventures. The provision of such an infrastructure yields potentially large data bases that provide the foundation for delivering 'practice-based evidence' as a natural complement to 'evidence-based practice'’ (Audin et al 2001: 241).

A Practice Research Network (PRN) has been defined as a group of practicing clinicians who cooperate to collect data and conduct research studies on a variety of service delivery issues (Zarin et al 1997). Different models of PRNs include those which are more generic in terms of research focus, for example:

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- the American Academy of Family Physicians' Federation of Practice Based Research networks - see <http://www.aafp.org/online/en/home/clinical/research/fpbrn.html>
 - the Central New York PRN funded by the Center for Community Alternatives - see http://www.communityalternatives.org/articles/prn_conference.html
 - the World Organisation of Family Doctors [WONCA] - see <http://www.globalfamilydoctor.com>
 - the National Association of Social Workers' PRN - see <https://www.socialworkers.org/naswprn/default.asp>
 - the American Psychiatric Institute for Research and Education's PRN - see <http://www.psych.org/research/apire/pracresnet/index.cfm>.

Others, for example, the American College of Clinical Pharmacy (ACCP) are representative of focused interest groups ranging from adult medicine, cardiology and geriatrics to outcomes & economics - see <http://www.accp.com/practice.php>.

According to van Weel, in the field of general practice, 'to meet local or regional needs' (van Weel 2002: 62) research networks have focused on different concerns, for example, on non-communicable chronic disease in North-western Europe compared with the care of patients with HIV/AIDS in South Africa. He states that 'different targets can lead to different organisational requirements and should make us wary of standardised models' (van Weel 2002:62).

First applied to the field of mental health care by the American Psychiatric Association in the 1990's, the American Counseling Association began the development of its PRN in 1999 through a contract with the Center for Substance Abuse Treatment (Smith et al 2005a). Over the past decade, PRNs within the field of mental health in the UK have increased significantly to include, for example:

- Art Therapy - the Art Therapy Practice Research Network [ATPRN] <http://www.baat.org/atprn.html> established by the British Association of Art Therapists
- Psychology - the British Psychological Society funded 'CORE' unit, based at University College London
- Counselling and Psychotherapy - the BACP Research Network – see <http://www.bacp.co.uk/research/network.html>.

Within this field, the PRN can also be argued to provide a look at 'what goes on in the process of providing mental health care services on a case-by-case, practitioner-by-practitioner, service delivery basis as opposed to traditional studies that are selected for convenience and the presence of a critical mass of clients' (Smith et al 2005b: 285).

Development of PRNs – Overseas

1. Canadian Psychiatric Association

For the Canadian Psychiatric Association, the main thrust of the PRN was to provide ‘an annual audit of the practice of Canadian psychiatrists’ and ‘was positively perceived as responding to an unmet need to track and assess the impact of a range of real world psychiatric practices on patient care in Canada’ (El-Guebaly & Atkinson 2004: 56). For this PRN work began in 1997 recruiting a network of volunteers who were psychiatrists, members of the Association, actively practicing in Canada and spending a minimum of 15 hours per week providing patient care. In the initial stages, upon volunteering, each member completed a questionnaire with demographic, training and practice data. The data were compared with a recent national profile of psychiatrists to assess the network's representativeness. In subsequent years, the PRN group was compared to a randomized comparison sample of Association members stratified by region of practice. Additionally, each psychiatrist joining the PRN committed to adhere to the methodological rigor required and to provide feedback to improve the network's performance. (El-Guebaly & Atkinson 2004: 57)

2. The American Counseling Association

The American Counseling Association began the development of its PRN with a study of the practice patterns and data on the clients of the counsellors involved with the network. In order to do this, the National Counselor Questionnaire was developed and during this

initial study, the software for a web-based data gathering process was also developed with focused investigation of specific services in mind (Smith et al 2005b: 286). Two further studies continued to focus on the services provided by the counsellors participating in the research whilst phase IV of the PRN project focused on client outcomes. (Smith et al 2005a)

3. The British Columbia Mental Health and Addiction Research Network

The British Columbia Mental Health and Addiction Research Network (MH&A) based their programme and plan on identified research needs in British Columbia, Canada. These included the need for better coordination and collaboration among researchers; the need to increase capacity in terms of expertise, resources and infrastructure; the need for effective links between academic researchers and health authorities in order to facilitate research and ‘enable active translation of research into policy and practice areas’ (MH&A Research Network Implementation Plan 2004:1). The identification of these needs served as a guide in the development of the scope and the programme of activities for the MH&A Network.

Development of PRNs – UK

1. The Centre for Evidence-Based Social Services

Within the UK, the Centre for Evidence-Based Social Services (<http://www.ex.ac.uk/cebss>) was founded and housed at the University of Exeter. This was put in place, at least in part as it was felt that ‘the nature of social work services, and the fact that we as a

discipline are (perhaps) more involved in particularly vulnerable populations such as the poor, minorities of colour and other historically oppressed groups, renders the design and conduct of RCT's (Randomised Control Trials) a particularly challenging endeavour' (Thyer 2002:7). The rationale was that clinical social work would be particularly well positioned to design and do efficacy studies and translational research, evaluations of interventions with 'actual treatment seeking patients' (Thyer 2002:7) with services delivered by 'every day practitioners who provide the "real" care in the mental health system (Thyer 2002:7).

2. The British Association for Counselling and Psychotherapy

The British Association for Counselling and Psychotherapy (BACP) research network was launched in 1997 and according to published information has currently over 440 members with the stated aims of the development of a research culture throughout BACP and the wider counselling and psychotherapy world, combined with a vehicle to promote the value of research.

The BACP Research Network is coordinated by a Research Department with responsibilities for the promotion and commissioning of research, the peer reviewing of protocols and contributing to the refereeing of funding applications, the development, production and execution of internal surveys and the lobbying and providing of feedback. According to BACP, the Research Department also organises the annual BACP Research conference, supports the BACP journals (CPR & Therapy Today) and liaises with external bodies to help shape matters of policy, activity and working methods related to research and funding. (For full

details see <http://www.bacp.co.uk/research/network.html>). The work of the BACP Research Department is aided by the Research Committee which helps formulate priorities for the Research Department and helps shape research policy and activity.

3. The Art Therapy Practice Network

Also within the UK, the relatively new Art Therapy Practice Research Network (ATPRN) has at the core an executive committee comprising of two senior art therapy practitioners. As the network expands, the stated aim is to develop a steering group comprising of ATPRN members and experienced researchers from other professions. The direction of the research is to be led by the practitioner membership and to include both quantitative and qualitative means of research (see <http://www.baat.org/atprn.html>). The ATPRN was launched at Goldsmiths College, London in 2000 and perhaps similarly to the Centre for Evidence-Based Social Services, established ‘as a response to the problem of generating other sorts of relevant research data from what is a predominantly practice-led profession, primarily to look at and capture the reality of that clinical practice as it is delivered in the field’ (Hallmark Issue 10)

Implementation of PRNs – Overseas

1. The American Psychiatric Association

The American Psychiatric Association utilised three primary sources of data; specifically, the biannual National (US) Survey of Psychiatric Practice, separate biannual studies of psychiatric patients and treatments to characterise the network/patient ‘treatment

denominator’ and lastly, specific studies (Zarin et al 1997: 1199). This PRN (of the American Psychiatric Institute for Research and Education – APIRE) is a research initiative comprised of a nationwide network of psychiatrists, currently close to 800, who cooperate to collect data and conduct research studies on a variety of clinical and health services delivery issues.

The APIRE Board of Directors has appointed two committees, the Scientific Advisory Committee and the Steering Committee, for scientific oversight and technical assistance of the PRN. These committees consist of professionals in numerous fields from around the country who give expert advice concerning clinical issues for investigation and development of the research agenda. Unlike some other models of PRN, for example Nor-Tex (see below), the research agenda of the APIRE PRN is primarily determined from the central organisation outwards rather than in the first instance by the members of the research network. For a current bibliography of research projects carried out by member of the APIRE PRN, see <http://www.psych.org/research/apire/pracresnet/biblio.cfm> .

The National Association of Social Workers in the United States (NASW) have developed their PRN modelled after this American Psychiatric Association example whilst the Society for Social Work and Research (SSWR) has also established a research network of more than 800 members and sponsors an annual scientific conference and bimonthly journal, *Research on Social Work Practice* (Sage).

2. Nor-Tex

Nor-Tex (the North Texas Primary Care Practice-Based Research Network) arguably operates in a slightly different way from APIRE in that although consisting of a director, research coordinator and scientific review and community advisory boards, the stated primary function of the boards is to ‘maintain the integrity of the research agenda and to approve or reject proposals that are submitted to Nor-Tex...(and) ensures a balanced research agenda and validates the importance, scientific merit and feasibility of the projects’ (Cardarelli et al 2007). The community advisory board is made up of community leaders and representatives of Nor-Tex member organisations such as the county hospital and health department, whilst the scientific advisory board is comprised ‘of experts in the areas of research design, methodology and biostatistics’ (Cardarelli et al 2007).

3. IRENE

A similar model to that of the APIRE PRN, although formed from a more geographically specific base of members, is shown by the Iowa Research Network (IRENE), established in 2001 by the members of the Iowa Academy of Family Physicians (IAFP), the University of Iowa Department of Family Medicine and the IAFP Foundation (The Family Health foundation of Iowa). Current membership of IRENE is 285 physicians spread throughout the state of Iowa. Details of the IRENE organisational structure can be found at <http://www.uihealthcare.com/depts/med/familymedicine/research/irene/orgchart.pdf> which show that the research agenda is again set by a steering committee, in this case advised by a Research Development Committee who are in turn receiving input from

Research advisors and Practitioner advisors as well as, importantly, a group of ‘organisation stakeholders’. The Steering Committee appoints a ‘Project Specific Principal Investigator’ with responsibility directly for the individual Research Project teams.

As well as the concept of a project specific principal investigator, there is also significant use of the work of practice facilitators in relation to PRNs with specific relevance to their role in ‘translating research into practice’ (Nagykaldi et al 2006: 506) but also in the design and implementation of research initiatives. According to this research which looked at four PRNs – the Oklahoma Physicians Resource/Research Network, the Colorado Research Network, the Oregon Rural Practice-based Research Network and the University at Buffalo Family Medicine Research Institute & Upstate New York Practice-based Research Network - practice facilitators ‘participate most often in externally funded research projects initiated by an academic organisation’ (Nagykaldi et al 2006: 506). In addition, however, practice facilitators assist ‘clinicians in local research and QI projects initiated by the practices’ (Nagykaldi et al 2006: 506). In contrast however, computer based research networks have been found to facilitate the recording and assist in the correlation of data from members of PRNs (Dovey & Tilyard 1996) without requiring ‘significant financial resourcing’ in terms of a research management structure (Dovey & Tilyard 1996:749).

4. KAN

Utilising a slightly different model - although again with a centralised council with responsibility for the prioritisation and financial management of research projects and a core faculty within the PRN - is the Kentucky Ambulatory Network (KAN). Formed in 2000,

its members include practitioners around Kentucky and bordering communities, plus faculty from the Universities of Kentucky and Louisville, and representatives from the Kentucky Academy of Family Physicians, the University of Kentucky Center for Rural Health and the Kentucky Primary Care Association. Member practitioners within this PRN are encouraged to develop research projects in collaboration with university based researchers, specifically a 'core' KAN faculty member but the structure of the PRN has been designed to allow the member practitioners to be directly involved in research projects from design to completion. This is however, under the overall control of the KAN General Advisory Committee.

5. British Columbia MH&A Network

The British Columbia MH&A Network was designed to be managed by two 'co-leaders' responsible for the coordination and facilitation of the network and its facilities (MH&A Research Network Implementation Plan 2004:2). Below this was the Planning and Advisory Committee including the co-leaders and representatives from universities, health authorities and non-governmental organisations. This Committee held responsibility for advising on key initiatives and Network budget, assisting in identifying and obtaining resources, monitoring progress of initiatives and advising on adjustments as well as 'supporting on-going planning and plan implementation' (MH&A Research Network Implementation Plan 2004:2).

In terms of membership, members of MH&A 'will have a research and/or clinical position at a university, health authority or other organisation predominantly focused on mental health and addictions' (MH&A Research Network Implementation Plan 2004:2).

The full MH&A Research Network implementation plan and related BC Mental Health and Addictions Research Network Formative Review Report can be found at: http://www.mhanet.ca/docs/MHA_Implementation_Plan.pdf and http://www.mhanet.ca/docs/MHA_Formative_Review.pdf

Implementation of PRNs – UK

1. National physiotherapy research network

The National physiotherapy research network (NPRN) in the United Kingdom is steered by four senior academics, together with officers of the Chartered Society for Physiotherapy (CSP), representatives of the Research forum for Allied Health Professionals and the NPRN Research Officer. Below this steering committee are 20 regional ‘hubs’ based in higher education institutions across the UK and Ireland which are linked with local clinicians and managers and which are facilitated by an active researcher.

Scope of PRNs – Overseas

The scope of various PRNs depends on a number of factors, not least of which are the sources of funding for the research projects undertaken. With this basis, the American Counseling Association Practice Research Network (ACA-PRN) was established at least primarily to answer key questions as to the characterisation of professional counsellors and – including issues of training, locations of

practices, client groups and services provided - as well as to carry out research into 'whether counselling is promoting the welfare of clients or harming clients' (Smith et al 2005a: 488)

Scope of PRNs – UK

Similarly, a number of PRNs aim to develop knowledge about the practices of members (see for example the National Association of Social Workers' Practice Research Network III Final Report January 2005 -

<http://www.socialworkers.org/naswprn/surveyThree/report0205.pdf>) including client profiles and services provided. The BPS's

Centre for Outcomes Research and Effectiveness focuses on counselling outcomes with a view to providing insight into therapeutic effectiveness. Together with the Royal College of Psychiatrists' Research Unit (CRU) the CORE unit forms a collaborating centre known as the National Collaborating Centre for Mental Health (NCCMH), established and funded by National Institute for Clinical Excellence (NICE) to develop clinical guidelines. Current guidelines published by the NCCMH include depression, depression in children, self harm, eating disorders, obsessive compulsive disorder and bi-polar disorder.

The BACP's research interests are broken into eleven main categories, namely: Counsellor training and development; Theoretical models and their application; Treatment modes; Counselling settings; Counselling specific client groups/populations; Client concerns; Medical and health issues; Counselling practice issues; Counselling Service Providers; Research, Audit and

Evaluation; Other areas (not previously covered). Publications, including systematic scoping reviews can be found at <http://www.bacp.co.uk/research> .

The Art Therapy Practice Research Network (ATPRN) originally had seven stated research groups which, the intention was, would lead to a network which would carry out multiple research projects. These were in the following areas: trauma; outcome measures; adult mental health/personality disorders; dementia; learning difficulties; image, identity, race & culture; and children, adolescents & families (<http://www.gold.ac.uk/hallmark/research/res10/art.html>).

Diversity of PRNs

The different natures of PRN structures can be related to the organisational differences of the funding groups behind them, or where the practice research networks are based. To van Weel ‘a university-based structure places practice research networks in direct contact with academic research programs, suggesting a “top-down” approach, whereas stimulating practitioners to initiate research would enhance a more “bottom up” generation of questions’ (van Weel 2002: 63).

The structure of the BACP Research Network would seem to be an example of a more ‘bottom up’ approach, despite the steering and prioritising undertaken by the Research Department and Research Committee. This is similar to the intended structure and functioning of the ARPRN but is in contrast to, for example, the APIRE-PRN which effects a more centrally directed research

agenda. The BACP research network is the only one listed here which appears to have no direct links to an academic institution, except through the affiliations of its individual members.

Strengths of PRNs

According to the findings of El-Guebaly and Atkinson (2004) ‘The strengths of the PRN reside in the active participation of clinicians in self-monitoring as well as in the (research) instrument adaptability and flexibility in addressing current issues of national relevance, including identification of educational needs (El-Guebaly & Atkinson 2004: 56). Van Weel et al (2000) pointed to the fact that PRNs often provide access to unselected patient populations, hence strengthening the case of PRNs in relation to questions of research validity or reliability (van Weel 2000: 938).

The goal of traditional clinical research has been ‘to minimise variation in study populations and settings to increase internal validity and demonstrate efficacy so that the results are valid and unbiased within the population studied’ (Handley 2006: 85). Practice Research Networks are instead more closely related to the concept of ‘translational research’, with ‘the idea of practical clinical trials’ promoted as a means to improve translational research’ (Handley 2006: 86) with a focus on generalisability of research findings. This seems to be an area of particular strength for PRN based research studies.

Limitations of PRNs

At the same time, researchers have found that ‘the PRN limitations are in the fact that the responders in general have limited research experience and the instrument can provide broad-based answers only’ (El-Guebaly & Atkinson 2004: 56). In specific relation to American family physicians, Green et al (1993) found that there were differences between the data obtained from physicians operating within and those outside of a practice research network, although the eventual conclusion was that the PRN in question was sufficiently representative for the research findings to be of relevance to the general population. In comparing PRNs, van Weel et al (2000) found that ‘local circumstances - the research mission or the characteristics of the health care system under which they operate – determine their form and structure’ (van Weel et al 2000: 938) whilst Levant (2001) outlined potential difficulties in ‘obtaining large-scale participation of practitioners in naturalistic research’ (Levant 2001:186).

Similarly, in a study of the IDEALL (Improving Diabetes Efforts Across Language and Literacy) Project, Handley described how ‘designing and conducting practical clinical trials often involves a complex set of strategies, decisions and trade-offs aimed at adapting to the ecology of the practice settings while maximising internal and external validity’ (Handley 2006:90-1). The researchers added that they ‘suspect many practice-based translational research projects are similarly situated’ (Handley 2006:91).

Borkovec et al (2001) describe how the phase I pilot project undertaken as part of the development and implementation of the Pennsylvania Practice Research Network for facilitating psychotherapy research in the naturalistic setting provided a basis for discussing the limitations characterising effectiveness investigations. Specifically that the questions related to psychotherapy effectiveness were not able to be conclusively answered but that what the study did show was how these initial questions can be used ‘to base subsequent, scientifically rigorous Phase II investigations that can markedly increase our empirical and obstacles discovered in this pilot investigation and possible ways of overcoming such impediments’ (Borkovec et al 2001:155). Despite the specific nature of this research initiative, it seems as if the findings can be of general use in relation to PRNs, namely that issues of effectiveness are not necessarily best addressed by the PRN structure which is perhaps best suited to dealing with questions of generalizability. For an illustrative study on the strengths and limitations of these issues in relation to a particular PRN, see Norquist (2001).

In addition to this, Zwar et al (2006) have stated that to ‘facilitate high-quality studies, a new type of network is needed with different aims, structures and processes from the “bottom-up” capacity-building networks. This matches the experience in the UK, which has resulted in disinvestment in “bottom-up” capacity-building networks, first in Scotland and more recently in England, because of the difficulties in attributing real gains in research expertise among primary-care practitioners or primary-care research networks’ (Zwar et al 2006: 111).

Conclusions

The scope and diversity of PRNs is marked, dependent in part on the funding bases and organisational structure. To Zwar et al (2006) the success of a PRN, in this case within primary care, is dependent upon key factors. They state that:

‘A range of possible models exist ...but their essential elements are:

- Processes to link ... practitioners with researchers, including opportunities to have input into the development of research projects and to be involved in piloting projects;
- A system for selecting the studies to be undertaken, so that the network is not stretched beyond capacity in any one topic or regional area;
- Systems for timely and relevant feedback on project involvement, such as progress on recruitment;
- Systems for feedback and discussion of research findings in ways that are relevant and timely...
- Access to training in research skills ..., including training on how to make best use of ... data systems;
- Information technology capacity and improved data collection ...;
- A system for remunerating practices and practitioners for their involvement; and
- High-quality, research-trained coordination staff to provide the outreach and crucial face-to-face contact with practitioners.

(Zwar et al 2006: 112)

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