ACRRM Research Program

Australian Government
Department of Family and Community Services
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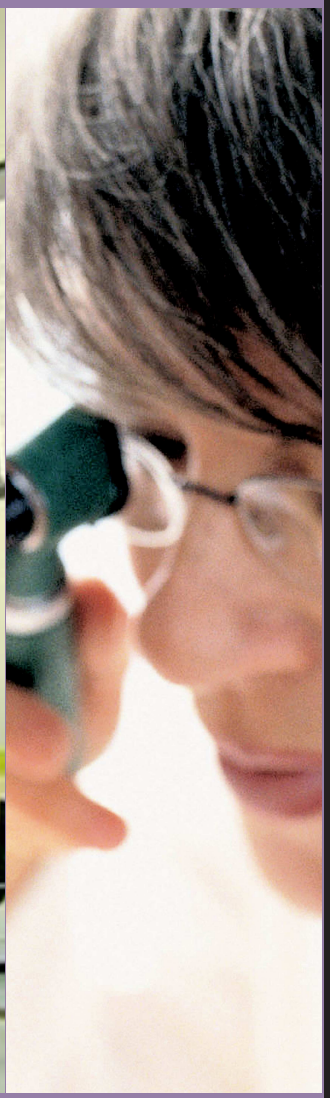
Australian Federation Of
Medical Women

continuing professional development (CPD)

preferences and learning styles

of rural and remote female doctors



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AUSTRALIAN COLLEGE OF RURAL AND REMOTE MEDICINE

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) PREFERENCES AND LEARNING STYLES OF RURAL AND REMOTE FEMALE DOCTORS

ACRRM RESEARCH PROGRAM

DECEMBER 2005

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Rationale

Today, an increasing proportion of the medical workforce is female. This demographic has an influence on the characteristics of both medical work and medical learning.

In 2003, an ACRRM study on the preferences of women doctors found that specifically targeted professional development for female doctors was one of the priority issues. The 2003 findings confirmed that female doctors have special requirements of their professional development programs in terms of content, organisation and location.

The 2005 ACRRM Research Program detailed in this report examines the basis for these preferences and investigates the extent to which women doctors' learning preferences and priorities are different to the current options on offer.

The research outcomes form an evidence based agenda whereby ACRRM can advocate for appropriate CPD for its women members and also form the basis for a set of guidelines by which education providers can develop more finely targeted CPD for women doctors.

These guidelines are available in a separate report, published by ACRRM, via the ACRRM website at www.acrrm.com.au .

Response

In response, ACRRM is currently engaged in research to identify the key characteristics of the practice of female doctors in order to ensure a match between practice and CPD. As a direct outcome of the research, the guidelines will assist medical education providers to design and provide appropriate educational activities for female doctors. This report outlines the conduct of the research program and the subsequent refinement of the guidelines through consultation with both the ACRRM membership and key stakeholder groups.

Results

The major preferences and issues faced by ACRRM women doctors in attending CPD provided the basis for the member survey and were grouped under the following categories:

- Motivation for accessing CPD activity
- Professional factors impacting access to CPD activity
- Personal / family factors impacting access to CPD activity
- Financial factors impacting access to CPD activity

- Preferred format of CPD activity
- Preferred clinical content of CPD activity
- Preferred non clinical content of CPD activity
- Preferred CPD participants
- Preferred activity structure and presenter style
- External considerations impacting access to CPD activity

This framework was validated and expanded at an early stage in the research program. It was evident that the major factors impacting upon providers of continuing professional development could be grouped under the following categories:

- Design of educational activity
- Delivery of educational activity
- Provision of female specific CPD activity

In terms of potential users of CPD, the issues emerging from the study were:

Learning Environment
- The format of an activity and its structure
- Characteristics of the presenter

Content
- Relevance to practice
- Maintenance / updating of skills and vocational registration

Opportunity / ability to access CPD
- Professional and personal / family barriers
- Financial barriers

In terms of the designers and providers of CPD programs the following aspects were found to have the biggest influence on development and delivery:

- Identified educational gaps through needs analysis
- Demand from membership
- Availability of funding
- Geographical location of members

The majority of organisations were not providing female specific CPD, owing to:

- Current activity not specifically targeting female doctors
- Desire to provide equity of access to all doctors, regardless of gender
- Low numbers of women doctors within membership / geographical area; or
- Low current demand for this type of activity

Further action

This research examines the needs of women doctors for education and CPD, and how these needs differ to the current options available to them. Topic needs and preferences, learning styles, accessibility, and modes of delivery are some of the issues identified by ACRRM's female membership in terms of CPD.

These findings will be made widely available to organisations and individuals who participate in, or provide, CPD activity to doctors throughout Australia as a means of raising awareness and generating discussion of these preferences and issues.

The research findings will also provide the basis for the development of guidelines for regional education providers that focus on relevant, affordable and achievable solutions to the current strategic issue of supporting Australia's increasing proportion of female doctors.

Many of these issues may not remain gender specific. Those issues identified as relevant by women doctors, are increasingly becoming of equal concern to their male counterparts as the sharing of family tasks and a desire for a life outside the world of 24 hour on-call become the norm.

There are no limitations therefore on the principles expounded by these guidelines being utilised for the design and delivery of CPD activity for all doctors, regardless of gender.

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) PREFERENCES AND LEARNING STYLES OF RURAL AND REMOTE FEMALE DOCTORS

1. INTRODUCTION

The need for specifically targeted professional development for female doctors was one of the priority issues identified in the ACRRM (2003) study into the support needs of rural and remote female doctors. The findings confirmed that female doctors have special requirements of their professional development programs in terms of content, organisation and location. This is supported by evidence from the literature that indicates that because a growing proportion of the emerging Australian medical workforce are women, there is an increasingly urgent imperative to provide flexible and appropriate educational opportunities for this group for a sustainable and well supported workforce.

Female doctors need to be able to provide the highest level of patient care and maintain, (or upgrade) their competency levels over a range of disciplines and areas. To achieve this, it is important that they are provided with opportunities to access continuing professional development (CPD) activities that are appropriate for their stage of career development. These activities need to be relevant to the type of practice of female doctors, be this rural, remote or urban and to reflect a wide range of professional, personal and financial concerns and preferences that directly impact on their ability to access CPD.

ACRRM is currently engaged in research to identify the practice characteristics and preferred learning styles of female doctors in order to enhance the match between practice and CPD. As a direct outcome of the research, a set of guidelines has been developed to support medical education providers in the design of specific educational activities for female doctors. This report outlines the conduct of this research and the subsequent refinement of the guidelines through consultation with both the ACRRM membership and key stakeholder groups.

ACRRM therefore commissioned a survey of its female membership, as a starting point in the national consultation process, to develop strategic guidelines that meet the educational needs and preferences of rural and remote female doctors.

It is important to note that many of the issues and preferences identified as relevant by female doctors, in terms of their ability to access appropriate CPD activities, are also becoming of equal concern to their male counterparts. There are no limitations therefore on the principles within these guidelines being utilised for the design and delivery of CPD activity for all doctors, regardless of gender.

This study is an applied research study, undertaken by ACRRM to develop a series of guidelines for regional education providers. These are intended to increase the understanding of education providers of the essential limiters that prevent female doctors undertaking more CPD activities that meet their specific requirements. The pillars of the study are:

- An increase in current knowledge of the requirements of female doctors in terms of access to appropriate CPD; and
- An understanding of the capacity and limitations of education providers to meet those needs.

The guidelines focus on relevant, affordable and achievable solutions to the current strategic issue of supporting Australia's increasing proportion of female doctors.

By investigating the views of both medical and educational groups in the study, ACRRM aims to support the attainment of new knowledge on the learning styles of female doctors and to address the development of strategic solutions to identified barriers.

2. LITERATURE REVIEW

2.1 Motivation for accessing CPD activity

It is well evidenced in the literature that the likelihood of a doctor accessing a particular CPD activity is directly related to their individual motivations and the associated outcomes and / or benefits of completing the activity. These motivators can be of either a professional or personal nature.

2.1.1 Professional motivations

There are a number of factors within the practice of female doctors that underpin the need to access CPD activities. The need to maintain the standards of the profession, its regulatory requirements and achievement of desired levels of competency appear in the literature as significant motivators in terms of encouraging doctors to participate in Continuing Professional Development. [1] [2] [3] [4] [5]

Reasons doctors give for attending educational activities include keeping up to date with the latest developments and innovations, [6] [7] meeting identified learning needs within their practice, [8] [9] [10] [11] [12] improved practice management [13] and improved patient and / or healthcare outcomes. [14] [15] [16] Other motivators of access include the completion of courses as a means to increase financial remuneration or to access financial incentives [17] [18] or for further career development or professional standing. [19]

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[1] Robinson G. Do general practitioners' risk taking propensities and learning styles influence their continuing medical education preferences? *Medical Teacher 2002;* ***24(1)****: 71-8*

[2] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. Postal survey of approaches to learning among Ontario physicians: implications for continuing medical education. *British Medical Journal 2000;* ***325****: 1218-1222*

[3] Norman GR, Shannon SI & Marrin ML. The need for needs assessment in continuing medical education. *British Medical Journal 2004;* **328**: 999-1001

[4] Peck C, McCall M, McLaren & Rotem T. Continuing medical education and continuing professional development: international comparisons. *British Medical Journal 2000;* ***320****: 432-35*

[5] Cantillon P & Jones R. Does continuing medical education in general practice make a difference? *British Medical Journal1999;* ***318****: 1276-79*

[6] Brigley S, Young Y, Littlejohns P & McEwen J. Continuing education for medical professionals: a reflective model. *Postgraduate Medicine Journal1997;****73****: 23-6*

[7] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. Continuing medical education for life: eight principles. *Academic Medicine 1999;* ***71(12)****: 1288-1294*

[8] Brigley S, Young Y, Littlejohns P & McEwen. 1997. op cit.

[9] Robinson G. 2002. op cit.

[10] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit.

[11] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. 1999. op cit.

[12] Fox D & Bennett NL. Continuing medical education: learning and change – implications for continuing medical education. *British Medical Journal 1998;* ***316****: 466-8*

[13] Robinson G. 2002. op cit.

[14] Davis D, Thomson MA, Oxman AD & Haynes B. Changing physician performance: a systematic review of the effect of continuing medical education strategies. *Journal of the American Medical Association 1995;* ***274****: 700-4*

[15] Norman GR, Shannon SI & Marrin ML. 2004. op cit.

[16] Cantillon P & Jones R. 1999. op cit.

[17] Robinson G. 2002. op cit.

[18] Peck C, McCall M, McLaren & Rotem T. 2000. op cit.

[19] Brigley S, Young Y, Littlejohns P & McEwen. 1997. op cit.

2.1.2 Personal motivations

Robinson (2002) identified a number of personal motivations that could determine whether a doctor would attend an educational event. [20] These included that it was a topic of particular interest to the individual, a requirement of a particular curriculum or course being undertaken, or the provision of opportunities to network and socialise with peers. The enjoyment of learning was also identified as a motivation for doctors to take part in CPD activity. [21] [22]

2.2 Factors impacting upon access to CPD activity

Understanding the motivators for doctors to attend educational events provides insight to how to engage their initial interest in CPD. However, there is still a range of influences within the professional and personal domains that impact on decision-making and subsequent ability of female doctors to access CPD activities.

2.2.1 Work related issues

The practice characteristics and working environments of female practitioners influence the ability of female doctors to participate in CPD activity. The work patterns and practices of rural and remote female doctors illustrated in a number of Australian research studies [23] [24] [25] [26] [27] [28] [29] emphasise the difficulties many doctors have in scheduling time away from their practices to attend CPD activity.

The levels of support available to female doctors from colleagues within their practice [30] as well as the availability of appropriate locum services [31] [32] [33] [34] [35] to cover these doctors for absences at educational activities can also impact on the number of opportunities female doctors have to access CPD. Missed income as a result of attending CPD activity within consultation hours must also be given consideration. [36]

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[20] Robinson G. 2002. op cit.
[21] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit.
[22] Robinson G. 2002. op cit.
[23] McEwin K. Wanted: New rural workforce strategies for female doctors' findings from a survey of women in rural medicine. *New South Wales Rural Doctors Network, Sydney 2001*
[24] Wainer J. Female Rural Doctors in Victoria: it's where we live. *Rural Workforce Agency Victoria, Carlton: 2001*
[25] White C & Fergusson S. Female Medical Practitioners in Rural and Remote Queensland: an analysis of findings, issues and trends. Discussion paper. *Queensland Rural Medical Support Agency, Brisbane 2001.*
[26] Tolhurst H & Lippert N. The National Female Rural General Practitioners research project. *University of Newcastle: Newcastle, 2001.*
[27] Doyle S. Women doctors in rural Australia: Workforce support strategies. Commonwealth Department of Health & Ageing, Canberra; ACT 2003
[28] Wainer J. Sustainable rural practice: successful strategies from male and female doctors. *Monash Univesity School of Rural Health, Melbourne, Victoria: 2004*
[29] ACRRM. Support for women doctors in rural and remote Australia. *ACRRM, Brisbane, 2003.*
[30] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit
[31] Wainer J. 2001. op cit.
[32] White C & Fergusson S. 2001. op cit.
[33] Cameron I. Retaining a medical workforce in rural Australia. *Medical Journal of Australia 1998;* ***169****: 293-4*
[34] Elley R. Women in rural general practice: the stresses and rewards. *New Zealand Medical Journal 2001:* ***114(1137)****: 97-102*
[35] Janes R, Dowell A & Cormack D. New Zealand rural general practitioners 1999 survey – part 1: an overview of the rural doctor workforce and their concerns. *New Zealand Medical Journal 2001:* ***114(1143)****: 492-5*
[36] ACRRM. Support for women doctors in rural and remote Australia. *ACRRM; Brisbane: 2003*

2.2.2 Personal / family related issues

The amount of time spent away from family is an important factor in a female doctor's decision to take part in CPD activity. A substantial number of female doctors working within rural and remote areas are, or have been, involved in some form of committed relationship and have responsibility for the care of children. [37] [38] [39] For those female doctors with children, the decision to access CPD activity is further influenced by the availability and access to appropriate childcare services.[40] [41] [42] [43] [44] [45]

Personal characteristics of female doctors can also influence their decisions and ability to access appropriate CPD activities. The female rural workforce is considerably younger than its male counterpart, with increased percentages of females aged 49 years and under working in rural and remote areas. [46] [47] [48] [49] [50] [51]

Working in rural and remote locations can also limit doctors' opportunities to access CPD activity within their immediate local area. With smaller numbers of male and female doctors practicing within RRMA classifications 3 to 7, [52] the opportunities available to these doctors would be limited and in many instances require these doctors to travel significant distances to attend educational events.

2.2.3 Financial issues

The financial impact of accessing CPD activity can be quite significant, with many female doctors having to balance the benefits of accessing an activity with the costs incurred. Costs to attend [53] (eg registration fees) and other costs to participate, including travel and accommodation, [54] [55] [56] for those who do not live within the immediate vicinity of the educational event, can have a direct influence on the decision to attend a CPD activity.

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[37] Tolhurst H & Lippert N. 2001. op cit.
[38] Doyle S. 2003. op cit.
[39] Wainer J. 2004. op cit.
[40] Wainer J. 2001. op cit
[41] White C & Fergusson S. 2001. op cit.
[42] Tolhurst H & Lippert N. 2001. op cit.
[43] WACRRM. Female general practitioners in remote and rural Western Australia. *WACRRM: 2002*
[44] Cameron I. 1998. op cit
[45] Wainer J. 2004. op cit.
[46] Australian Medical Workforce Advisory Committee. The medical workforce in rural and remote Australia. *AMWAC report: Sydney; 1996*
[47] Strasser R, Kamien M, Hays R & Carson D. National rural general practice study. *Monash University Centre for Rural Health; Traralgon:1997*
[48] Tolhurst H & Lippert N. 2001. op cit.
[49] McEwin K. 2001. op cit.
[50] Wainer J. 2001. op cit
[51] White C & Fergusson S. 2001. op cit.
[52] Harding J. The supply and distribution of general practitioners. *In General Practice in Australia: 2000. Office of the Medical Adviser, General Practice Branch, Health Services Division, Department of Health & Ageing: Canberra, 2000.*
[53] ACRRM. 2003.op cit
[54] ACRRM. Barriers to the maintenance of procedural skills in rural and remote medicine. *ACRRM; Brisbane: 2002*
[55] Cameron I. Women in rural general practice: conflict and compromise. *Medical Journal of Australia 2000: **173**: 119-20*
[56] Wainer J. 2001. op cit.

Additional costs incurred by female doctors having to travel to access CPD activity include the costs to employ a locum to cover absence from work, if there is a suitable locum available. [57] The costs of childcare [58] if not provided, also influence decisions about attendance.

2.3 Structure of CPD activity

Whilst external factors play a significant role in determining whether a female doctor will access CPD activity, several aspects inherent to the activity on offer can influence decision making. The preferences of female doctors for the type of activity format, clinical and non clinical topic areas and likely participants can influence decision making.

2.3.1 CPD activity format

There is a wide range of activity formats currently available in continuing professional development. Choice and applicability may be directly and indirectly influenced by factors such as age, geographical location, cost, individual experiences in previous learning environments and specific learning styles. These activities can be group based in a range of sizes and formats (eg conferences, small groups, discussion and peer review groups), [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] and levels of interaction (eg lectures or interactive sessions). [69] [70] [71] [72]

Case or problem-based sessions have become prominent with the rise of evidence based medicine (eg case studies or problem based learning) [73] [74] [75] [76] as have practical or skills based educational activities (eg practical workshops and skill based assessment). [77] [78] [79] [80]

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[57] Tolhurst H & Lippert N. 2001. op cit
[58] ACRRM. 2003.op cit
[59] Davis D, Thomson MA, Oxman AD & Haynes B. 1995. op cit
[60] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit.
[61] Robinson G. 2002. op cit.
[62] Davis D, Thomson MA, Oxman AD & Haynes B. 1995. op cit
[63] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. 1999. op cit.
[64] Fox D & Bennett NL. 1998. op cit
[65] Norman GR, Shannon SI & Marrin ML. 2004. op cit.
[66] Cantillon P & Jones R. 1999. op cit.
[67] Jacques D. Teaching small groups. *British Medical Journal 2003; **326**: 492-4*
[68] Cantillon P. Teaching large groups. *British Medical Journal 2003; **326**: 437*
[69] Robinson G. 2002. op cit.
[70] Lesmes-Anel J, Robinson G & Moody S. Learning preferences and learning styles:a study of Wessex general practice registrars. *British Medical Journal 2001; **51**: 559-64*
[71] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. 1999. op cit.
[72] Cantillon P & Jones R. 1999. op cit.
[73] Robinson G. 2002. op cit.
[74] Smits PBA, Verbeek JHAM & dr Buisonje CD. Problem based learning in continuing medical education: a review of controlled evaluation studies. *British Medical Journal 2002; **324**: 153-6*
[75] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. 1999. op cit.
[76] Wood DF. Problem based learning. *British Medical Journal 200; **326**: 328-30*
[77] Robinson G. 2002. op cit.
[78] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit

Assessments undertaken within the practice environment are also common and readily available formats for CPD. These comprise work based assessment and clinical attachments, [81] [82] record and written based assessment (eg exams, audits and reading of journal materials), [83] [84] [85] [86] and computer or online based activity. [87] [88] [89] [90]

2.3.2 CPD activity clinical content

The majority of topic areas available for CPD activity are clinical in content. There is a general consensus that these are the most relevant for the practising doctor. The clinical activity areas most often accessed are those that are relevant to the type of practice and the skills and knowledge base required to practice successfully. [91] As noted earlier, the reasons doctors are likely to access clinical CPD topics include the level of interest, [92] in terms of capacity to maintain medical currency, [93] [94] to improve knowledge and skills resulting in better patient outcomes [95] [96] [97] or to ensure the maintenance of professional competencies. [98] [99]

2.3.3 CPD activity non clinical content

Clinical education topics rate highly within the provision of CPD, however recent studies indicate that professional development of a non clinical nature is useful to female doctors working within rural and remote locations. [100] [101] [102] [103] This includes business and conflict management, leadership development, and negotiation skills.

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[79] Norman GR, Shannon SI & Marrin ML. 2004. op cit.
[80] Smee S. Skill based assessment. *British Medical Journal 2003:**326**:703-6*
[81] Norcini JJ. Work based assessment. *British Medical Journal 2003**: 326**: 753-5*
[82] Spencer J. Learning and teaching in the clinical environment. *British Medical Journal 2003;**326**: 591-4*
[83] Lesmes-Anel J, Robinson G & Moody S. 2001. op cit
[84] Norman GR, Shannon SI & Marrin ML. 2004. op cit.
[85] Schuwirth LWT & van der Vleuten CPM. Written assessment. *British Medical Journal 2003;**326**: 643-5*
[86] Fox D & Bennett NL. 1998. op cit
[87] Robinson G. 2002. op cit.
[88] Pieterman L & McCall L. Evaluation of the Graduate Diploma in Family Medicine: does a distance education course for GP's influence their reported clinical and professional practice? *Australian Family Physician 2000; **29 suppl 1**: 38-42*
[89] Smits PBA, Verbeek JHAM & dr Buisonje CD. 2002. op cit
[90] McKimm J, Jollie C & Cantillon P. Web based learning. *British Medical Journal 2003; **326**: 870-3*
[91] Hutchinson L. Educational environment. *British Medical Journal 2003; **326**: 810-12*
[92] Robinson G. 2002. op cit.
[93] Abrahamson S, Baron J, Elstein AS, Hammond WP, Holzman GB, Marlow B, Snyder Taggart M & Schulkin J. 1999. op cit.
[94] Brigley S, Young Y, Littlejohns P & McEwen. 1997. op cit.
[95] Davis D, Thomson MA, Oxman AD & Haynes B. 1995. op cit.
[96] Norman GR, Shannon SI & Marrin ML. 2004. op cit.
[97] Cantillon P & Jones R. 1999. op cit.
[98] Peck C, McCall M, McLaren & Rotem T. 2000. op cit.
[99] Delva MD, Kirby JR, Knapper CK & Birtwhistle RV. 2000. op cit
[100] ACRRM. 2003.op cit
[101] Wainer J. 2001. op cit.
[102] Doyle S. 2004. op cit
[103] Wainer J. 2004. op cit.

2.3.4 Other CPD participants

Robinson (2002) asked a group of general practitioners to rate their preferences in terms of fellow participants in shared CPD activity. [104] Among those listed, general practitioners were the most preferred fellow participants for CPD activity with consultants and specialists, practice partners, participants from other disciplines, practice team or staff and by themselves also rating.

A preference for targeted gender specific educational activities may also be an important factor in the decision of a female doctor to access a specific CPD activity. [105]

2.4 Preferences within CPD activity

On the surface, an advertised CPD activity may appear to meet the learning preferences of a particular doctor, however, it is largely through participation that the true learning merits can be ascertained. This leads us to consider that the description, classification and rating of CPD activities may need further attention in order to guide choice. To be effective, educational activity should be based on the principles of adult educational theory, in order to promote the quality of the activity and the likelihood of the learning objectives of individual participants being achieved. [106]

2.4.1 CPD activity structure

The learning environment will impact the level of learning and understanding that participants ultimately achieve. [107] Factors such as the physical environment [108] [109] and the degree of psychological safety and belonging created within this environment [110] are important in determining how involved a participant will become. This will directly influence the quality of their learning outcomes.

2.4.2 CPD presenter styles

The characteristics and skills of the presenter, (particularly in their ability to communicate), are seminal to the creation of an effective learning environment. [111] The actions and attitudes (both verbal and non verbal) of the presenter within this environment, (for example in the degree of respect and encouragement shown to participants, the use of non threatening or direct questioning techniques to facilitate learning, and the presenter's own level of knowledge and enthusiasm for the topic) will also serve to enhance the learning outcomes of participants. [112]

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[104] Robinson G. 2002. op cit.
[105] ACRRM. 2003.op cit
[106] Kaufman DM. Applying educational theory in practice. *British Medical Journal 2003: **326**: 213-6*
[107] Hutchinson L. 2003. op cit.
[108] Cantillon P. 2003. op cit.
[109] Jacques D. 2003. op cit.
[110] Kaufman DM. 2003. op cit.
[111] Spencer J. 2003. op cit.
[112] Hutchinson L. 2003. op cit.

2.5 External considerations impacting on CPD activity

There are a number of external considerations associated with female doctors' access to CPD activities. These include the provision of childcare services [113] [114] [115] and the organisation of appropriate activity that runs concurrently with CPD events, for partners and family. [116] [117]

2.6 Conclusions

The evidence suggests that learning preferences and styles have a profound influence on whether a doctor will choose to access a specific educational activity. The motivations for access, the types of activity available, the range of both clinical and non clinical content, other participants and the quality of the learning environment all shape this decision making process.

For female doctors and a growing number of their male counterparts, the ability to access preferred CPD activity is further confounded by a range of professional, family, personal and financial issues. Limiting factors include the amount of time spent away from work and family, the costs to travel and attend CPD activity, especially for those doctors practicing in the more rural and remote locations, and the lack of appropriate childcare and locum coverage.

The provision of high quality, targeted educational activity for female doctors that is accessible, flexible and appropriate will be enhanced by our gaining an understanding of the learning and activity preferences of female doctors and the issues that impact on their ability to access CPD. Education providers can be guided by this evidence as to how to best develop and provide appropriate and accessible CPD for female doctors.

[113] Doyle S 2003. op cit.
[114] ACRRM. 2003. op cit.
[115] Wainer . 2004. op cit.
[116] Doyle S. 2003. op cit.
[117] Tolhurst H & Lippert N. 2001. op cit.

3. METHOD

3.1 Summary and timeline

The strategies proposed for the initial research methodology were selected to develop an evidence-based approach that was achievable with a relatively small cohort and within a short timeline.

- Development of a literature review to establish a number of influencing categories and referencing of the issues under key headings
- Development of a national sampling framework of 352 female doctors in RRMA 1-7 that are members of ACRRM
- Administration of the survey identifying and defining key categories and issues that impact on access to CPD activities
- Supporting interviews with respondents
- Development and administration of an education provider survey to identify the factors impacting on the development and delivery of CPD activity
- Consultation with survey respondents, rural organisations and education providers
- Analysis and reporting of findings to a broader rural medical group as the basis for developing guidelines for the design of female doctor friendly up skilling and skills maintenance courses.

3.2 Sampling framework

The sampling framework included all female medical members of ACRRM in RRMAs 1-7. Data was analysed by state, RRMA, age group and practice status for the 352 female members surveyed.

This is illustrated in Table 1 to Table 4.

Table 1. Sample breakdown by state

STATE	PERCENTAGE AND FREQUENCY
Australian Capital Territory	0.6% (2)
New South Wales	26.4% (93)
Northern Territory	3.7% (13)
Queensland	24.7% (87)
South Australia	13.9% (49)
Tasmania	3.1% (11)
Victoria	17.9% (63)
Western Australia	8.0% (28)
Overseas	1.7% (6)
Total	100.0% (352)

Table 2. Sample breakdown by RRMA classification

RRMA CLASSIFICATION	PERCENTAGE AND FREQUENCY
RRMA 1	14.2% (50)
RRMA 2	1.7% (6)
RRMA 3	4.5% (16)
RRMA 4	17.9% (63)
RRMA 5	41.5% (146)
RRMA 6	7.4% (26)
RRMA 7	5.4% (19)
UNKNOWN	5.7% (20)
Overseas	1.7% (6)
Total	100.0% (352)

Table 3. Sample breakdown by age group

AGE GROUP	PERCENTAGE AND FREQUENCY
70 years and over	0.3% (1)
60 to 69 years	4.0% (14)
50 to 59 years	23.0% (81)
40 to 49 years	43.5% (153)
30 to 39 years	25.5% (90)
29 years and under	2.3% (8)
Unknown	1.4% (5)
Total	100.0% (352)

Table 4. Sample by ACRRM membership category

MEMBERSHIP CATEGORY	PERCENTAGE AND FREQUENCY
Full time	39.2% (138)
Part time	16.7% (59)
Joint	27.8% (98)
Group Additional	6.5% (23)
Group First	0.6% (2)
Individual	1.1% (4)
International	1.1% (4)
Organisation	0.3% (1)
Post graduate	2.0% (7)
Registrar	4.5% (16)
Total	100.0% (352)

The sampling framework also includes a cohort of education providers obtained from the following categories:

- Divisions of General Practice
- Rural Workforce Agencies
- State Based Organisations
- Other (eg private providers)

3.3 Identification of factors impacting on CPD activity attendance

The major issues impacting on the practice of rural and remote women doctors and attendance at CPD activity have been identified in three ways:

- The analysis of policy and strategic material developed by expert groups, including the ACRRM WIRP group
- Identification of the priority issues of female doctors in Australia gained from the ACRRM Research Study (2003)[118]
- Refinement of a list of items by reference to the female doctor and continuing professional development literature.

The following categorisation of issues formed the basis for the member survey. Issues were placed randomly within each category.

- Motivation for accessing CPD activity
- Professional factors impacting access to CPD activity
- Personal / family factors impacting access to CPD activity
- Financial factors impacting access to CPD activity
- Preferred format of CPD activity
- Preferred clinical content of CPD activity
- Preferred non clinical content of CPD activity
- Preferred CPD participants
- Preferred activity structure and presenter style
- External considerations impacting access to CPD activity

A copy of the survey is provided in Appendix A.

3.4 Semi structured interviews

A list of questions was developed based on the findings of the CPD preferences and learning styles survey for the purposes of conducting semi structured interviews. The list of interview questions is provided in Appendix B.

3.5 Identification of factors impacting on CPD providers

The major factors impacting on the development and delivery of CPD activity by education providers, particularly in the provision of events appropriate to the needs of female doctors, have been identified in two ways:

- Broad reference to the literature on continuing professional development
- Reference to the priority issues identified in the ACRRM 2003 Research Study [119] and other relevant studies and literature on female doctors

These factors were refined into the following categories and provided the basis for the education provider survey, a copy of which is provided in Appendix C.

- Design of educational activity
- Delivery of educational activity
- Provision of female specific CPD activity

[118] ACRRM. 2003 op cit
[119] ACRRM. 2003. op cit

3.6 Survey and interview administration and analysis

Survey administration took place between November 2004 and January 2005 and generated an overall response rate of 53.0% from female doctor members. Analysis of aggregate results, differentiated by State, RRMA, age group and practice status was undertaken using standard SPSS analysis. Demographic analysis of survey non respondents was also conducted to determine any potential for respondent bias.

From these respondents who indicated that they were willing to be interviewed, a 35% (n84) random sample was selected. The state, RRMA classification, age group and membership category characteristics of this sample are provided in Table 5 to Table 8.

Table 5. Interview sample breakdown by state

STATE	PERCENTAGE AND FREQUENCY
Australian Capital Territory	0.0% (0)
New South Wales	31.0% (9)
Northern Territory	0.0% (0)
Queensland	27.6% (8)
South Australia	10.4% (3)
Tasmania	3.4% (1)
Victoria	17.2% (5)
Western Australia	10.4% (3)
Total	100.0% (29)

Table 6. Interview sample breakdown by RRMA classification

RRMA CLASSIFICATION	PERCENTAGE AND FREQUENCY
RRMA 1	17.3 % (5)
RRMA 2	3.4% (1)
RRMA 3	6.9% (2)
RRMA 4	17.3% (5)
RRMA 5	48.3% (14)
RRMA 6	3.4% (1)
RRMA 7	3.4% (1)
Total	100.0% (29)

Table 7. Interview sample breakdown by age group

AGE GROUP	PERCENTAGE AND FREQUENCY
70 years and over	0.0% (0)
60 to 69 years	6.9% (2)
50 to 59 years	24.1 % (7)
40 to 49 years	37.9% (11)
30 to 39 years	31.0% (9)
29 years and under	0.0% (0)
Total	100.0% (29)

Table 8. Interview sample breakdown by ACRRM membership category

MEMBERSHIP CATEGORY	PERCENTAGE AND FREQUENCY
Full time	41.4% (12)
Part time	24.2% (7)
Joint	17.3% (5)
Group Additional	6.9% (2)
Post graduate	6.9% (2)
Registrar	3.4% (1)
Total	100.0% (29)

From this group, a total or 15 (51.7%) gave permission to be interviewed.

Each interview was recorded with permission from the interviewee and conducted by the Research Officer. The interviews were summarised and sent to each interviewee to ensure for accuracy of content.

The education provider survey was conducted in early February 2005 and distributed to 112 education providers including Divisions of General Practice, Rural Workforce Agencies and State Based Organisations. The survey was also promoted through ACRRM's electronic newsletter Country Watch which resulted in requests from four providers of CPD activity. A response rate of 37.1% (n116) was achieved and the data analysed using SPSS.

The triangulation of the CPD preferences and learning styles data with both the interview responses and results of the education provider survey is designed to test the validity of these findings. The review of these findings through a round of consultation will add further validation and provide a solid basis on which to develop guidelines that are appropriate to the needs of female doctors but also cognisant of the limitations faced by education providers.

4. RESULTS

4.1 Introduction

Female doctors that are members of ACRRM have strong preferences in terms of CPD activity and learning styles. At the close of returns, a response rate of 53.0% of female members was recorded with a 51.7% valid return remaining at the close of analysis. This provides a reasonable evidence base with which to identify the CPD preferences of female doctors and direct the development of comprehensive guidelines.

It is important to note that even those items identified in the study as of low preference or importance should be viewed as important as all the factors have emerged from both national and international research studies. Items with a relatively low ranking may be particularly relevant to specific sub groups within the female doctor population.

Survey participants were asked to rate the relative level of preference, importance or impact a list of 90 items had on their motivations and ability to access continuing professional development activities. The relative nature of these indications must be stressed, although each of the items presented within the list has been identified as influencing both the decision and ability of doctors to attend or engage in CPD. What may be identified as a major concern for some doctors within the sample may not be as relevant to others and vice versa. The list of items has been broken down into the following categories:

- Motivation for accessing CPD activity
- Professional factors impacting access to CPD activity
- Personal / family factors impacting access to CPD activity
- Financial factors impacting access to CPD activity
- Preferred format of CPD activity
- Preferred clinical content of CPD activity
- Preferred non clinical content of CPD activity
- Preferred CPD participants
- Preferred activity structure and presenter style
- External considerations impacting access to CPD activity

4.2 Demographics

The state, RRMA, age and practice status demographics of respondents to the survey are provided in Table 9 to Table 12.

Table 9. Respondent breakdown by state

STATE	PERCENTAGE AND FREQUENCY
Australian Capital Territory	0.0% (0)
New South Wales	27.5% (50)
Northern Territory	2.7% (5)
Queensland	25.3% (46)
South Australia	15.9% (29)
Tasmania	3.8% (7)
Victoria	17.6% (32)
Western Australia	6.6% (12)
Overseas	0.5% (1)
Total	**100.0% (182)**

Table 10. Respondent breakdown by RRMA classification

RRMA CLASSIFICATION	PERCENTAGE AND FREQUENCY
RRMA 1	11.0% (20)
RRMA 2	2.7% (5)
RRMA 3	5.5% (10)
RRMA 4	18.1% (33)
RRMA 5	47.3% (86)
RRMA 6	5.5% (10)
RRMA 7	2.7% (5)
UNKNOWN	6.6% (12)
Overseas	0.5% (1)
Total	**100.0% (182)**

Table 11. Respondent breakdown by age group

AGE GROUP	PERCENTAGE AND FREQUENCY
70 years and over	0.0% (0)
60 to 69 years	6.0% (11)
50 to 59 years	23.6% (43)
40 to 49 years	40.1% (73)
30 to 39 years	26.4% (48)
29 years and under	2.2% (4)
Unknown	1.6% (3)
Total	**100.0% (182)**

Table 12. Respondent breakdown by ACRRM membership category

MEMBERSHIP CATEGORY	PERCENTAGE AND FREQUENCY
Full time	36.8% (67)
Part time	19.8% (36)
Joint	29.1% (53)
Group Additional	8.2% (15)
Group First	0.0% (0)
Individual	0.5% (1)
International	0.0% (0)
Organisation	0.0% (0)
Post graduate	2.2% (4)
Registrar	3.3% (6)
Total	**100.0% (182)**

4.3 CPD preferences and learning styles of rural and remote female doctors

Survey data were analysed to examine the learning styles and CPD preferences of female doctors across Australia.

4.3.1 Motivation to access CPD activity

The following reasons were rated as significant priorities for respondents to access CPD activity and are listed in Table 13.

Table 13. Significant priorities for accessing CPD

Significant Priorities	Percentage of respondents (n182)
Need to maintain professional standards and competence	85.2%
Keeping up to date with the latest developments	74.7%
Improved patient and / healthcare outcomes	79.7%
An area or topic that I am interested in	76.9%

Accessing CPD as a means to increase financial remuneration or incentives was rated by 52.2% of respondents as a lesser priority for accessing CPD.

4.3.2 Impact of work related issues on access to CPD activity

Scheduling an appropriate amount of time away from work (66.5%, n182) and finding CPD activity that suited the patterns of consultation and work status of female doctors (48.4%, n182) were identified as issues of significance for female doctors.

4.3.3 Impact of personal / family issues on access to CPD activity

The amount of time spent away from family to attend CPD was identified as having a significant impact on female doctors (56.0%, n182). The availability of childcare services was rated as an important issue for just under a third of respondents (32.4%, n182).

4.3.4 Impact of financial issues on access to CPD activity

The costs for female doctors to attend CPD activity was identified as an issue, with respondents rating this fairly equally as having either a moderate (42.3%, n182) to significant (41.8%, n182) impact on their ability to access CPD, whilst the costs to participate in CPD were viewed as being of moderate impact (44.5%, n182).

4.3.5 Preferred format of CPD activity

Respondents were asked to determine the appropriateness of a range of different CPD activity formats in relation to their learning style and preferences. The activity formats rated as highly appropriate by respondents are provided in Table 14.

Table 14. Highly appropriate CPD activity formats

Highly appropriate CPD activity formats	Percentage of respondents (n182)
Hands on / practical workshops	78.6%
Conferences	51.6%
Interactive learning	50.5%

In relation to those identified as being least appropriate for their learning preferences, written activity (75.3%, n182) and audits (52.7%, n182) were rated as least favoured by respondents. Computer, web based and online activities were also rated lowly by just under half of respondents (47.3%, n182).

4.3.6 Preferred clinical content of CPD activity

When asked to rate the importance of accessible and flexible training in a range of clinical content areas taken from the ACRRM curriculum, respondents rated a number of clinical topic areas as being of high importance. These are illustrated in Table 15.

Table 15. Highly important clinical topic areas

Highly important clinical topic areas	Percentage of respondents (n182)
Obstetrics and Women's Health	66.5%
Emergency Medicine	64.3%
Mental Health	50.5%

Clinical content areas rated by respondents as being of low importance in terms of accessible and flexible training were Anaesthetics (63.2%, n182) and Surgery (56.6%, n182), as well as a range of less clinically based topic areas such as Research and Evidence Based Medicine (56.6%, n182).

4.3.7 Preferred non clinical content for CPD activity

In terms of non clinical topics, conflict management and negotiation skills were rated as being of moderate importance by 45.6% (n182) and 41.8% (n182) of respondents respectively.

Business management and leadership development were rated of low importance to 36.3 % (n182) and 46.7% (n182) of respondents respectively.

4.3.8 Preferred CPD participants

The majority of respondents preferred to share their CPD activity with general practitioners (81.9%, n182) and this is in keeping with the preference for interaction with their peers. Moderate preferences were recorded for physicians (50.5%, n182), specialists (47.3%, n182), multidisciplinary sessions (47.3%, n182), practice staff (45.1%, n182) and practice partners (42.3%, n182).

In regard to the gender of other participants, half of the respondents expressed a preference for a mixture of male and female doctors (50.0%), whilst sessions with participants of the same gender were a low preference for nearly half (47.8%) of respondents.

4.3.9 Preferred activity structure and presenter style

Presenter style was identified as influential by the majority of respondents in terms of enhancing their learning or encouraging their involvement in a CPD activity. Encouraging presenters who allowed participants to determine their own level of

involvement (59.3%, n182) and also demonstrated a non confrontational teaching style (56.0%, n182) were identified as being of high importance. The ability to ask questions was also rated as being of high importance in enhancing the learning of 53.8% (n182) of respondents.

A condensed yet comprehensive activity structure was also rated by 52.2% (n182) of respondents as highly important to enhancing their learning or involvement in an activity.

Aspects of the presenter were also influential in terms of the least important ratings of respondents in terms of enhancing their learning within CPD activities. Direct questioning (63.7%, n182) and the use of challenging questions (62.1%, n182) were identified as being of low importance to the majority of respondents. A preference for either male or female presenters was also rated of low importance with 63.7% (n182) and 59.9% (n182) of respondents respectively.

4.3.10 External considerations impacting on access to CPD activity

In terms of external considerations impacting on female doctor access to CPD activity, events that acknowledge that not all doctors have a wife / partner who is female was rated by respondents as having either a significant (39.0%) or low impact (38.5%). The provision of a childcare service and the provision of activities that a male partner could attend were rated of high importance by 28.6% and 22.0% respectively.

Events that acknowledge that not all doctors are heterosexual was considered by 7.7% (n182) of respondents as being of high importance

4.3.11 Summary of quantitative findings

Respondents identified a number of characteristics both within and associated with CPD activity that were most effective and of value to them in terms of their learning and interaction. Responses were grouped into the following categories:

- The learning environment in which CPD activity is undertaken, specifically:
    - the activity format
    - their ability to interact and ask questions within the activity, and
    - the characteristics and style of the presenter
- The content and topics of the activity, specifically:
    - updates on the latest developments
    - whether the topics are specific or varied in nature, and
    - the quality of the activity

- The ability and opportunity for respondents to participate in CPD activity including:
    - The availability of locums
    - Availability of childcare
    - Clashes with other commitments
    - Travel and accommodation, and
    - Additional event supports
- The relevance to rural and / or clinical practice
- Availability of resources
- Networking and socialisation
- Costs

It is clear that the learning environment, level of relevance and interest of the topic area and a number of family, work and financial factors impacting on respondent's ability to participate are the major issues that must be considered in the design and delivery of CPD activity for rural and remote female doctors.

4.3.12 Summary of qualitative findings

A number of issues and attitudes were identified by respondents and are presented below, grouped into the following categories:

- CPD activity preferences, including:
    - Timing and location of CPD
    - Relevance to practice
    - Online and electronic formats
    - Changing preferences at different life stages
- Accessing activities, including
    - Cost to participate / attend
    - Travel and accommodation
    - Childcare
- Family considerations, including
    - Partner and or spouse
    - Single parents
    - Single doctors with no partner
    - Children
    - Non heterosexual doctors
- Locums
    - Availability and suitability for rural practice
    - Cost

4.4 Semi structured interviews

4.4.1 Introduction

To validate and further expand upon the findings of the CPD preferences and learning styles survey, a number of semi structured interviews were conducted. Of the 29 respondents invited to be interviewed, 15 agreed (51.7%) and were subsequently interviewed, inclusive of the following sub categories:

- Female doctors in RRMA 1-2
- Female doctors in RRMA 3-5
- Female doctors in RRMA 6-7
- Full time female doctors
- Part time female doctors
- Female doctors aged 39 years and under
- Female doctors aged 40 to 59 years
- Female doctors aged 60 years and over

4.4.2 Demographics

The demographic details of the interviewees in terms of state, RRMA, age group and membership status are provided in Table 16 to Table 19.

Table 16. Interviewees by state

STATE	PERCENTAGE AND FREQUENCY
New South Wales	26.7% (4)
Queensland	13.3% (2)
Tasmania	6.7% (1)
Victoria	33.3% (5)
Western Australia	20.0% (3)
Total	**100.0% (15)**

Table 17. Interviewees by RRMA classification

RRMA CLASSIFICATION	PERCENTAGE AND FREQUENCY
RRMA 1	13.3% (2)
RRMA 3	6.7% (1)
RRMA 4	13.3% (2)
RRMA 5	60.0% (9)
RRMA 6	6.7% (1)
Total	**100.0% (15)**

Table 18. Interviewees by age group

AGE GROUP	PERCENTAGE AND FREQUENCY
60 to 69 years	6.7% (1)
50 to 59 years	33.3% (5)
40 to 49 years	46.7% (7)
30 to 39 years	13.3% (2)
Total	**100.0% (15)**

Table 19. Interviewees by ACRRM membership category

MEMBERSHIP CATEGORY	PERCENTAGE AND FREQUENCY
Full time	53.3% (8)
Part time	26.7% (4)
Joint	20.0% (3)
Total	**100.0% (15)**

4.4.3 Practice environments

Those female doctors interviewed reflected the diversity of practice inherent to rural and remote medicine including general practice, women's health, obstetrics, nutritional and environmental medicine, emergency and retrieval medicine. Some doctors also undertook interstate locums and were rostered after hours on call.

4.4.4 Motivations and benefits of attending CPD

The main reason given by most respondents for accessing CPD was the opportunity to keep up to date with the latest developments. Confirmation of current practice and increased knowledge and skill development in areas that were relevant to practice, of interest to the doctor or important to maintain were seen as the major benefits in providing patients with the best quality care. This also instilled confidence in those doctors to provide this care.

Other reasons given for accessing CPD included the maintenance of vocational registration and the opportunity to interact and socialise with peers and other medical professionals, mainly specialists or experts within specific fields. The benefits of this included continued vocational registration and a reduced sense of isolation experienced by those doctors, especially women within rural and remote practice through the sharing of common experiences and understanding. Also of benefit was the opportunity to meet those specialists to whom doctors were likely to refer and also to gain an appreciation of their practice.

4.4.5 Activity Preferences

Most interviewees liked small group activity with a practical focus and held within the local area. The main reasons for this preference were the opportunity for interaction between the presenter and participants and amongst participants themselves, efficiency in terms of delivery, timing and distance and the opportunity to consolidate what was learnt.

Conferences were also identified as a preferred activity by some doctors as an opportunity to hear experts (especially from overseas) talk on their specific areas of interest whilst also providing the opportunity to meet other practitioners in similar fields from different areas. However, some doctors found these conferences to be quite isolating and lonely if they attended them by themselves without knowing anyone else there.

There was, however, a degree of variation amongst the activity preferences identified. Whilst for some doctors, online and computer based activity rated highly as it could be completed at home and in their own time, for others this type of activity was least preferred due to a number of reasons including preference for direct interaction with a person, or dislike of computers. One respondent mostly preferred to complete CPD activity at home in the evening through the reading of medical journals and other relevant literature, whilst for another, note taking from videos and DVDs was preferable.

4.4.6 Topic areas

In most cases, clinical topics were identified as preferable to non–clinical topic areas as this was perceived to be more relevant to the focus of every day practice. For clinical topics, the breadth of topics listed reflects the diversity of practice environments and areas in which rural and remote women doctors work. These ranged from women's health, mental health, child / adolescent health and chronic disease through to procedurally based topics including anaesthetics, obstetrics, emergency medicine and intensive care. Areas such as alternate medicine, nutritional and environmental health were also identified.

A number of non clinical topics were also identified. These included medico–legal risk, personal health and well being, practice management and administration (eg PIP, software applications) and personal development (eg conflict resolution and presentations).

4.4.7 Other participants and learning environment

Respondents found that the most preferred participants with whom to share CPD activity were doctors from the local area who were in a similar type of practice. This was owing to a shared background and commonality of experiences, understanding and level of knowledge. Knowing someone within the group also provided a sense of comfort to other participants.

Other preferred participants included other health professionals, although this was in some instances dependent upon the topic (eg obstetrics with midwives) as interaction across professional groups was thought to be beneficial, and specialist providers could impart relevant skills and knowledge.

A mix of male and female participants was also identified as beneficial especially if greater numbers of women were present, as often in rural practice women were outnumbered by men at CPD events.

An important factor in making the learning environment comfortable was sharing it with doctors from the local area who were known to participants and had common skill sets. Holding the activity locally also contributed to this.

A welcoming environment, respect for individual knowledge, skill and experience and the ability to determine the level of involvement within an activity without pressure was also identified as enhancing the learning environment of an activity.

Other aspects identified that would make a learning environment comfortable included good instructions on how to get there so as to reduce stress prior to the activity, and the knowledge that children were being well cared for with the ability to access them quickly if required.

In terms of the physical environment, the provision of comfortable chairs if sitting for extended periods of time and the room set at a comfortable temperature also contributed to a good learning environment.

4.4.8 Barriers to accessing CPD

A number of common barriers were found to impact on opportunities to attend CPD. Finding the time to attend these activities amongst a range of various other commitments was a problem for most doctors. Inability to find a suitable locum and their associated costs, working the nightshift roster and on call arrangements, and lost income were important professional related barriers. Lack of appropriate childcare, family commitments and time spent away from family also hindered access to CPD.

These barriers became even more significant if the activity was not being held within the local area. The time and cost involved in travelling to attend activity in terms of distance, accommodation and other related expenses (partner / family) often resulted in doctors being unable to attend.

For one doctor, the growing trend to offer activities online at the expense of more traditional methods had resulted in their gradual exclusion from activities that they had previously enjoyed.

4.4.9 Strategies for overcoming CPD barriers

Several strategies were suggested to overcome these barriers. The increased local delivery of CPD was identified as a major strategy in overcoming access difficulties. This would reduce the distances travelled, time needed to travel, accommodation and other associated costs.

Plenty of advance notice about upcoming events (at least four weeks) would also assist doctors that needed to schedule activity around work rosters and schedules that were planned in advance. This would provide opportunity for changes to be made to work rosters or replacements found to provide coverage. The provision of adequate childcare services would also assist doctors to attend CPD.

Whilst the provision of CPD in local areas is an ideal solution, it may not always be feasible. In order to attend those activities being held outside the immediate area, the availability of funds to cover the costs associated with attending these activities would enable many doctors to attend. The provision of educational grants that subsidise the cost of attending CPD activities for doctors and their families, locum coverage and childcare would also assist many doctors to access CPD. The tax deductibility of childcare costs would also be of benefit.

Appropriate locum coverage (for example, suitably skilled locums prepared to work on call / after hours and weekends) would also assist doctors to participate in CPD without leaving their community without access to appropriate medical services. Having access to an appropriate pool of experienced people who could go into an area and relieve for a period of time would also be beneficial.

4.4.10 Other comments

A range of issues were raised and have been grouped into the following categories:

- Maintaining professional / personal life balance
    - Constant pressure to work more hours
    - Difficulty in balancing work and family commitments
    - Some issues (eg childcare) now just as relevant to male doctors
- Aspects of educational activity
    - Impact of online education delivery on those who are not computerised or do not have access
    - Issues relating to the use of online learning planners and other educational tools
    - Accreditation requirements and structure of small group activity
    - Benefits of access to a mentor, especially whilst in training
    - Balanced promotion of activities – eg events promoted as family friendly may inadvertently discourage from attending those doctors without partners, as it was not seen as relevant to them
    - Provision of childcare and balance between social and educational activities
    - Provision of activity programs for partners (both male and female)
- Rural medical practice
    - Unrealistic perception of rural doctor's ability to leave practice to attend CPD activities
    - Increasing relevance of nutritional and environmental medicine to rural and remote medical practice

4.5 Providers of CPD education

4.5.1 Introduction

A number of providers of CPD activity were surveyed to assist in the development of a balanced and achievable set of guidelines. The purpose was to identify those factors impacting on the development and delivery of activities by education providers generally, the volume and range of educational activities currently available that specifically targeted the needs of female doctors, and the identification of reasons as to why education providers did not provide this education.

4.5.2 Demographics

A total of forty three (43) surveys were returned by providers of CPD. The type of organisation and state of respondents are provided in Table 20 and 21.

Table 20. Type of organisation providing CPD activity

ORGANISATION TYPE	PERCENTAGE AND FREQUENCY
Divisions of General Practice	76.7% (33)
Rural Workforce Agencies	4.7% (2)
State Based Organisations	2.3% (1)
Other	4.7% (2)
Unknown	11.6% (5)
Total	**100.0% (43)**

Table 21. State of organisation providing CPD activity

ORGANISATION STATE	PERCENTAGE AND FREQUENCY
New South Wales	23.3% (10)
Northern Territory	2.3% (1)
Queensland	9.3% (4)
South Australia	14.0% (6)
Tasmania	4.6% (2)
Victoria	27.9% (12)
Western Australia	9.3% (4)
Unknown	9.3% (4)
Total	**100.0% (43)**

4.5.3 Factors impacting on the development of CPD activity

Respondents were asked to rate the level of importance (eg very important, important and not important) that a number of factors had on their ability to develop educational activities. Educational gaps identified through processes such as needs analysis were found to have a very important impact on the development of CPD activity within respondent organisations (76.7%, n43). Demand from the membership (67.4%, n43) and the availability of funding (65.1%, n43) were also rated as very important by a majority of respondents.

4.5.4 Factors impacting on the delivery of CPD activity

Respondents were also asked to rate the importance of a number of factors on their ability to deliver CPD activity. In this instance, the availability of funding was rated as very important by the majority of respondents (69.8%. n43) whilst the geographical location of the organisation's membership was also very important within respondent organisations (60.5%, n43).

4.5.5 Provision of educational activities specifically for female doctors

Of forty three respondents only 16.3% (7) were providing education specifically targeted at female doctors. From this group, the most popular forms of activity were:

- women doctor groups (3)
- personal development sessions (2), and
- women's health topics (2)

When asked how this education was tailored to meet the specific needs and preferences of female doctors, all respondents nominated the following strategies:

- specific content or topic areas relevant to female doctors
- a comfortable, practical and interactive learning environment, and
- the provision of catering and refreshments

Childcare was offered by 42.9% (n7) of respondent organisations providing female specific CPD activity.

4.5.6 Reasons for the non provision of female specific activity

Reasons nominated by providers who did not provide CPD activity specifically for female doctors included:

- no current educational activities designed specifically for female doctors
- desire to provide equity of access for all members to CPD regardless of gender
- low numbers of female doctors within organisation membership
- current lack of demand for such courses from within organisation membership

4.5.7 Summary of qualitative findings

Comments provided from respondents broadly cover the following points which have been grouped into five strategic themes:

- the provision of female targeted CPD activity
- the provision of inclusive CPD based on specific needs – not gender
- CPD demands from membership
- The feasibility of some female specific CPD activity
- Effect of CPD timing on attendance rates of male and female doctors

5. DISCUSSION

Several key elements relating to the CPD preferences and learning styles of rural and remote women doctors were identified.

5.1 Learning environment

Learning environment is a key factor in the design and provision of CPD activity, with the format and structure of the activity and the characteristics of the presenter identified as determining characteristics.

5.1.1 Activity format and structure

ACRRM female doctors indicated a strong preference for activity with a practical and hands on approach conducted within a small group format. The opportunity for interaction between participants and the presenter and amongst the participants themselves also rated well with respondents.

This was further enhanced if participants were professional colleagues from within the local area and known to other members of the group. The shared experiences of practicing within rural and remote medicine provided a sense of common understanding of the every day pressures faced by these doctors and an opportunity to debrief without fear of their experiences being de-valued.

There was also a preference for a mix of male and female participants within an activity, although some female members indicated that a greater representation of women doctors at these events would also enhance the learning environment.

5.1.2 Presenter characteristics

The opportunity for interaction between the presenter and participants was an important characteristic within an activity's learning environment. To be most effective, this interaction should be tempered with mutual respect for the skills, knowledge and experiences of both the presenter and the participants, combined with the adoption of a non confrontational style of presenting.

Presenters who provided opportunities to ask questions and allowed participants to determine their own level of involvement within an activity were also found to enhance a learning environment. Putting participants under pressure or drawing attention to them in front of others through direct questioning or the performance of an activity did little to enhance the learning of respondents.

In terms of preference for a presenter of a specific gender, as long as the presenter had considerable experience in the area, could make the content relevant to either the clinical or rural medical context and communicated well, their gender was not a concern.

5.1.3 Providers of CPD

Whilst these characteristics would enhance the learning of many women doctors, they must be balanced against the ability of education providers to feasibly deliver this type of activity. Cost implications and the geographical spread of membership all impact on the ability of education providers to deliver this ideal.

5.2 Content

In terms of content, the relevance of a topic and the potential benefits of its outcomes were important in determining whether doctors would access CPD.

5.2.1 Relevance to practice

The relevance of a topic or content of an activity to an individual doctor's practice was an important factor in deciding whether to attend CPD activity. Topics that doctors encountered within their regular practice, had a particular interest in, or felt it was important to maintain their knowledge and skills in, were rated as important. There was also a strong preference for clinical topics compared with those topics of a less clinical or non clinical basis, due to the relevance of these topics to every day practice.

A broad range of clinical topic areas were identified ranging from general practice through to topics associated with procedural practice. Emergency Medicine, Women's Health and Mental Health were identified by the majority of respondents as of high importance in terms of having access to CPD activity. This is a direct reflection of the nature and diversity of practice women medical practitioners undertake within rural and remote medicine.

5.2.2 Maintenance / updating of skills and vocational registration

Participation in CPD to maintain and / or update skill sets was identified as an important reason to attend CPD activity. Keeping informed of the latest developments whilst refreshing those competencies already held allowed respondents to believe that they delivered the highest quality care, resulting in improved patient and health care outcomes. The attainment of points to meet the requirements of continued professional registration was also a major factor in deciding to attend CPD.

5.2.3 Providers of CPD

Once again, the ability of education providers to deliver activity with content that is relevant and appropriate to the every day practice of women medical practitioners is dependent upon a number of considerations. Demand from the membership and whether the topic has been identified as an educational gap will impact on the delivery of educational activity.

5.3 Opportunity / Ability to access CPD

Several major barriers were found to impact on the ability of rural and remote women doctors to access and participate in CPD activity. These barriers had two main sources: women doctors trying to balance their professional and personal lives or the financial impost of attending CPD activity.

5.3.1 Professional and personal / family barriers

A number of professional and personal / family issues impact on the ability of women doctors to participate in CPD activity and these will have a varying degree of influence at particular stages of their professional and personal lives. Issues preventing many women doctors participating in CPD activity include scheduling time away from work, the lack of appropriate locum coverage or the amount of time spent away from family and lack of appropriate childcare.

Flexibility within the design and delivery of CPD activity would benefit many rural and remote women doctors. This flexibility can take several forms, for example the provision of activity at more convenient times (eg evening or weekend), held within the local area or made available through various delivery media tailored to suit a range of learning styles and preferences.

The provision of complementary services such as appropriate childcare services and activity programs for partners (both male and female) and family members would also assist.

5.3.2 Financial barriers

Regardless of the degree of flexibility some activities provide, it is almost certain that many rural and remote women doctors will attend CPD activity outside their local area. The result of this is significant financial cost, especially if extensive travel and accommodation are required. There is a further impost if family members need, or wish, to accompany them to these events.

The availability of funding (such as grants) to assist rural and remote women doctors attend educational activity outside their local area would do much to alleviate this financial burden. This funding could be used to subsidise the costs associated with the activity (eg registration, travel or accommodation) or other related expenses (eg costs of employing a locum to provide coverage). Subsidies or tax deductions for childcare expenses associated with CPD events would also be of benefit.

5.3.3 Providers of CPD

There are many education providers that take these issues into consideration within their current education delivery and provide some or most of these services to both male and female users.

For these providers, it may be recognition of the specific difficulties faced by many women doctors in attending CPD activity whilst for others, it stems from the ideal of providing equity of access to all, based on individual needs of doctors rather than gender.

Whilst the strategies outlined above would greatly enhance the opportunities for rural and remote women doctors to participate in CPD activities, the demands placed upon organisations that deliver this education must be taken into consideration. Factors such as the geographical spread, number of, and demand for services from members and the availability of funding and associated costs of providing these services will ultimately determine whether all or any of these strategies are feasible.

6. FUTURE ACTION

This research highlights the preferences, learning styles and some of the issues faced by ACRRM's female membership in their ability to access and participate in CPD activity. These findings will be made widely available to both organisations and individuals who either participate in or provide CPD activity to doctors throughout Australia as a means of raising awareness and discussion of these preferences and issues.

These research findings have provided the basis for the development of guidelines for regional education providers that focus on relevant, affordable and achievable solutions to the strategic issue of supporting Australia's increasing proportion of female doctors. As many of the issues identified as relevant by women doctors are increasingly becoming of equal concern to their male counterparts, there are no limitations therefore on the principles within these guidelines being utilised for the design and delivery of CPD activity for all doctors, regardless of gender.

APPENDIX A

CPD PREFERENCES AND LEARNING STYLES OF RURAL AND REMOTE FEMALE DOCTORS

ACRRM is investigating the importance and degree of influence the following aspects have on female rural and remote doctors in relation to their CPD preferences and learning styles. This information will be used to promote the development of appropriate, accessible and flexible CPD for female doctors.

We would greatly appreciate your assistance in completing this survey.

1. Please rate the priority you place on each of the following statements as reasons for accessing CPD activities.

	Significant	Moderate	Lesser
The need to maintain profession regulatory requirements	3	2	1
The need to maintain professional standards and competence	3	2	1
Enhancement of career development and professional standing	3	2	1
Meeting identified learning needs within my practice	3	2	1
Improved patient and / or healthcare outcomes	3	2	1
As a means to increase financial remuneration or incentives	3	2	1
Improved practice / workplace management	3	2	1
Keeping up to date with the latest developments	3	2	1
An area or topic I'm interested in	3	2	1
The enjoyment of learning	3	2	1
A requirement of a specific curriculum or course	3	2	1
The opportunity to network and socialise with others	3	2	1

2. To what degree do the following work related issues impact on your ability to access CPD activities?

	Significant	Moderate	Lesser
Scheduling an appropriate amount of time away from work to attend CPD	3	2	1
Finding CPD activity that suits patterns of consultation and work status	3	2	1
The level of support from colleagues for absence at CPD activities	3	2	1
Missed income as a result of attending CPD activity	3	2	1
Availability of locum coverage	3	2	1

3. To what degree does the following personal and family related issues impact on your ability to access CPD activities?

	Significant	Moderate	Lesser
Amount of time spent away from family to attend CPD	3	2	1
Availability of childcare services	3	2	1

4. To what degree do the following financial issues impact on your ability to access CPD activities?

	Significant	Moderate	Lesser
Costs to participate in CPD activity	3	2	1
Costs to attend CPD activity (travel, accommodation etc)	3	2	1
Costs to employ locum	3	2	1
Costs to access childcare services	3	2	1

5. As a female doctor attending CPD, which of the following formats are generally most appropriate in terms of your learning style and preferences?

	High	Moderate	Low
Conferences	3	2	1
Lectures	3	2	1
Reading of journal articles and other materials	3	2	1
Written assessment (essays, examinations)	3	2	1
Computer / web based / online activity	3	2	1
Problem based learning	3	2	1
Case based studies	3	2	1
Hands on / practical workshops	3	2	1
Interactive learning	3	2	1
Discussion / peer review groups	3	2	1
Small group learning	3	2	1
Clinical attachments	3	2	1
Audits	3	2	1
One on one learning with personalised feedback	3	2	1

6. As a female doctor in rural practice, how important to you is accessible and flexible training in the following clinical content areas?

	High	Moderate	Low
Aboriginal Torres Strait Islander Health	3	2	1
Adult Internal Medicine	3	2	1
Aged Care	3	2	1
Anaesthetics	3	2	1
Child and Adolescent Health	3	2	1
Dermatology	3	2	1
Emergency Medicine	3	2	1
Information Technology / Information Management	3	2	1
Musculoskeletal Health	3	2	1
Obstetrics / Women's Health	3	2	1
Ophthalmology	3	2	1
Oral Health	3	2	1
Palliative Medicine	3	2	1
Population Health	3	2	1
Principles of Rural and Remote General Practice	3	2	1
Psychiatry / Mental Health	3	2	1
Radiology	3	2	1
Rehabilitation	3	2	1
Research and Evidence Based Medicine	3	2	1
Strategic Skills in Rural Medical Practice	3	2	1
Surgery	3	2	1

7. In terms of supporting your professional and personal needs, please indicate the importance of access to any of the following non clinical topics?

	High	Moderate	Low
Leadership Development	3	2	1
Conflict Management	3	2	1
Business Management	3	2	1
Negotiation Skills	3	2	1

8. Please indicate your preferences for other participants in shared CPD activity?

	High	Moderate	Low
General Practitioners	3	2	1
Physicians	3	2	1
Specialists	3	2	1
Multidisciplinary	3	2	1
Practice partners	3	2	1
Practice staff	3	2	1
Individual	3	2	1
Doctors of mixed gender	3	2	1
Doctors of same gender	3	2	1

9. How important are the following activity structures and presenter styles in terms of enhancing your learning or encouraging you to become involved in a CPD activity?

	High	Moderate	Low
Small group size (less than 10)	3	2	1
Large group size that allows me to be anonymous	3	2	1
Short segments that allow me to attend to other responsibilities during intervals	3	2	1
Professional activities interspersed with leisure activities that allow for rest and relaxation during the event	3	2	1
Condensed activity that can be completed quickly	3	2	1
Adequate time to mix and socialise with other attendees	3	2	1
Non confrontational teaching style	3	2	1
Challenging questioning (being put on the spot)	3	2	1
Encouragement to ask questions during presentation	3	2	1
Female presenters	3	2	1
Male presenters	3	2	1
A mixture of male and female presenters	3	2	1
Presenters who direct questions to me as an individual	3	2	1
Presenters who allow me to sit and observe without participating if I wish	3	2	1
Presenters who encourage me to participate as I wish	3	2	1

10. How important are the following external considerations in terms of enhancing your learning or encouraging you to become involved in a CPD activity?

	High	Moderate	Low
Provision of a child care service	3	2	1
Provision of partner activities that my male partner can attend	3	2	1
Events that acknowledge not all doctors have a wife / partner who is female	3	2	1
Events that acknowledge not all doctors are heterosexual	3	2	1

11. Specifically within CPD events, what are the characteristics of learning and interaction that are most effective and of value to you?

1._____

2._____

3._____

4. _____

5. _____

6. _____

12. Have we missed anything? Any additional comments?

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Information from this survey will be used to guide further focus group discussion and / or interviews. Please indicate (by ticking the appropriate box) whether you would like to be involved in these activities at a time and location convenient to you.

- ☐ Yes, I give permission to be contacted for the purposes of a focus group
- ☐ Yes, I give permission to be contacted for the purposes of confidential interview
- ☐ No, I do not give permission and do not wish to be contacted for either focus group or interview.

Thank you for taking the time to complete this survey. It would be greatly appreciated if you could return this to ACRRM by facsimile on 07 3105 8299 or via the attached reply paid envelope by Monday, December 20, 2006.

APPENDIX B

CPD preferences and learning styles of rural and remote female doctors

Semi - structured interview questions

1. Describe your current practice environment.
2. For what reasons would you consider participating in professional development activity?
3. What do you see as the main benefits of this?
4. What are the major barriers you face in terms of your ability to access continuing professional development?
5. What strategies could be put in place to assist you over come these issues
6. What types of educational activity do you like / dislike?
7. Why do you like / dislike this type of activity?
8. What clinical topic areas would you rate as most important to your type of practice?
9. Why are these important?
10. What non clinical topic areas do you feel would benefit you within your every day practice?
11. Why are these of benefit?
12. Who would you most prefer to share your continuing professional development activities with and why?
13. An environment in which participants feel safe and comfortable has been identified as optimal for learning outcomes. What makes a learning environment comfortable and safe for you?
14. Are there any other considerations or issues that you'd like to raise?

Thank you for your assistance with this project. It is greatly appreciated.

APPENDIX C.

FACTORS IMPACTING ON THE DEVELOPMENT OF CPD ACTIVITIES

ACRRM is developing guidelines for the design of female friendly up skilling and skills maintenance courses. We are interested in identifying factors that impact on the development and delivery of medical education by education providers**. It would be greatly appreciated if the Professional Development Officer or the most appropriate contact could complete and return this survey to Yolanda Schweizer by FAX on 02 9313 5750 by MONDAY, FEBRUARY 14, 2006.**

Please indicate your answer by circling the most appropriate response

1. How important are the following factors in terms of the DEVELOPMENT of educational activities by your organisation?

	Very Important	Important	Not Important
Availability of funding	3	2	1
Staff and resource availability	3	2	1
Topic an identified government health priority	3	2	1
Demand from membership	3	2	1
Identified educational gap (eg needs analysis)	3	2	1
Cost to develop	3	2	1

Other, please specify

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2. How important are the following factors in terms of the DELIVERY of educational activities by your organisation?

	Very Important	Important	Not Important
Availability of funding	3	2	1
Staff and resource availability	3	2	1
Geographical location of membership	3	2	1
Mode of delivery (eg online, face to face)	3	2	1
Cost to deliver	3	2	1

Other, please specify

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3. Does your organisation develop or deliver medical education specifically for female doctors?

Yes, please provide details below Unsure No

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4. If your organisation does provide medical education that specifically targets female doctors, is this tailored to meet their requirements through the use of any of the following items?

Flexibility of timing	Yes	No
Comprehensive content in a condensed format	Yes	No
Specific content / topic areas relevant to female doctors	Yes	No
A comfortable, practical and interactive learning environment	Yes	No
Resources / information that can be referred to after the event	Yes	No
Subsidised or no cost to participate	Yes	No
Provision of a childcare service (if required)	Yes	No
Facility amenities suitable for breast feeding / childcare (if required)	Yes	No
Provision of catering and refreshments for participants	Yes	No

Other, please specify:

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Have we missed anything? Any additional comments?

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Thank you for your completing this survey. Your time and assistance is greatly appreciated.

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