

# Writing for *Evidence Based Midwifery*

Marlene Sinclair<sup>1</sup> PhD, MEd, BSc, DASE, RNT, RM, RN. Danny Ratnaik<sup>2</sup> PG Cert DAS, BSc.

<sup>1</sup> Professor of midwifery research, Institute of Nursing Research, University of Ulster at Jordanstown, Newtownabbey BT37 0QB Northern Ireland. Email: m.sinclair1@ulster.ac.uk

<sup>2</sup> Deputy editor, *Evidence Based Midwifery*, 15 Mansfield Street, London W1G 9NH England. Email: danny.ratnaik@tenalpspublishing.com

## Abstract

**Background.** Writing for publication is a key step in the dissemination of research outcomes and other scholarly work, and *Evidence Based Midwifery* (EBM) provides a platform for local, national and international midwifery research.

**Aim.** To present specific information about EBM and details about the processes of writing and publishing.

**Method.** A brief overview of the history, ethos and organisation behind the journal, followed by reflections on writing for publication, advice on how to plan, write and submit a paper, and information on the review and publication processes.

**Conclusion.** EBM encourages midwives who have conducted appropriate work to publish papers that will share knowledge with the international midwifery community in order to inform and develop practice, education and further research.

**Key words:** Writing, publication, evidence-based midwifery, Royal College of Midwives, research, EBM, guidance

## Introduction

This paper sets out to assist writers who wish to publish research and scholarly papers in *Evidence Based Midwifery* (EBM), and is intended to build upon previous guidance from the editorial team (Sinclair et al, 2006). A brief overview of the history, ethos and organisation behind the journal will be given first. This will be followed by reflections on writing for publication, advice on how to plan, write and submit a paper, and information on the review and publication processes.

## Background

### *A brief history of EBM*

EBM was founded by the RCM in order to help develop a strong professional and scholarly basis for a growing body of academically-orientated midwives. The College's pre-existing *RCM Midwives Journal* has been published in one form or another since 1887 (Rivers, 1987), and has long contained evidence that has contributed to midwifery knowledge and practice. At the start of this century, increasing numbers of midwives were becoming involved in research, and in both opening up and exploiting new opportunities for academic advancement. A growing need was recognised for a platform for the most rigorously conducted and reported research. There was also a desire for this to be written by and for midwives, and with the development of the profession and practice as its prime focus. The world's longest and most established professional midwifery organisation would be its natural home.

EBM was officially launched as a standalone journal for pure research evidence at the RCM annual conference in Harrogate, England in 2003 (Hemmings et al, 2003). It was designed 'to assist midwives in pushing forward the boundaries of midwifery knowledge with the ultimate aim of improving care for mothers and babies' (Silverton, 2003).

The journal was produced twice a year initially, but this increased to three issues in 2006 and from this year onward it is being published quarterly. EBM continues to build its reputation and profile, and while this is something that could be expected to take time, there can be no doubt that it

is establishing itself as an authoritative source of valued knowledge for the profession.

### *Practice informed by evidence*

However long midwives have been applying the lessons of their and others' experience and learning to the improvement of the care that they provide, evidence-based practice has become an increasingly articulated priority for all healthcare professionals in recent decades.

In an attempt to define the practice of evidence-based medicine that may have relevance to midwifery, Sackett et al (1996) proposed that it 'means integrating individual clinical expertise with the best available external clinical evidence from systematic research. By individual clinical expertise, we mean the proficiency and judgment that individual clinicians acquire through clinical experience and clinical practice'. This does not imply that midwives should become functionaries who direct women through choices predefined by the results of clinical trials, nor that they should constantly adapt their practice in line with the findings of the latest published study. What it does mean is that they should use their own professional expertise and experience to make full use of knowledge gained through critical appraisal of research evidence.

One recent survey of healthcare professionals in north-east England (McSherry et al, 2006) serves as a reminder of the barriers that can exist to midwives making the most of such evidence in practice, including lack of time, support, knowledge and confidence. While the existence of EBM cannot remove these by itself, in easing access to well-reported research it should help to arm midwives in efforts to level them.

Much of the evidence that may be used to improve maternity care will not come from double-blinded randomised controlled trials (RCTs), as valuable as these are when possible and appropriate (Murphy, 2005; Potts et al, 2006). Models that rank levels of evidence are also useful, but their criteria vary and they need to be appraised with skills similar to those required to assess individual pieces of research (Upshur, 2003; Bellomo and Bagshaw, 2006).

EBM recognises the value that different types of evidence have to contribute to the practice and profession of midwifery. The journal actively embraces qualitative as well as quantitative research, philosophical and concept analyses as well as structured literature reviews, systematic reviews, cohort studies and RCTs. The key is that they should all make a visible contribution to the literature, and be reported in a way that is structured, logical and transparent, so that midwives can properly assess meaning and implications for practice, education and further research.

The journal also acknowledges that rigorous midwifery research is developing rapidly, and EBM regards itself as having an active role in facilitating midwives to acquire the necessary skills and competence to effectively disseminate research outcomes.

#### *Editorial panel members and referees*

The journal has a UK editorial panel, an international editorial panel and an editorial advisory panel, which are appointed and approved by the RCM. Their membership includes academic and clinical experts, RCM Council members and staff, the editorial team and representatives of the publishers.

Academic and clinical members of the UK and international editorial panels are midwives with a PhD and a publication profile, and who are prepared to write at least one paper for publication in EBM within a two-year period (subject to additional review).

The papers submitted to EBM are not only reviewed by panel members, but also by carefully selected regular and occasional external referees, who are approved by the RCM on the basis of their expertise, experience and academic achievement.

#### **Reflections on writing for publication**

Writing is a common activity and one that every midwife engages in every day of her or his working life, whether keeping professional and legal notes about women, completing application forms, submitting academic assignments or producing reports and audits. As the RCM UK Board for Northern Ireland prepares to celebrate its 60th anniversary this year, the discovery of early writings by midwives in diaries, official records and news items is providing an illuminating record of historical midwifery practice, knowledge and education. This insight is possible because midwives were and are 'professional' writers.

Midwives who undertake research soon discover that it comes with a moral and sometimes contractual imperative to publish outcomes. A dissemination plan is often a stated requirement of funded research, and academic institutions striving to demonstrate a vibrant research culture demand evidence of publication. The UK Research Assessment Exercise (RAE) is only one example of how research performance is measured using published evidence as an indicator (Sinclair, 2004). Beyond these requirements and pressures, many midwives feel a personal and academic challenge to communicate research findings with peers, multiprofessional colleagues and the public.

A mature midwife's starting point for writing is likely to be somewhat different to that of a newer recruit to the profession. More experienced midwives may tend toward greater expectations of clinically-focused outcomes. As such, the application and value of research in clinical terms may be a major factor in their estimation of the contribution of a paper to midwifery knowledge, practice and education. Retired midwives' contributions are an often untapped source of rich information, and many of those with contextual storytelling ability have gems of practical wisdom and lived experience to share with women, peers and the multiprofessional team. Having lived through changes in practice, education, policy and research, valuable patterns of 'knowing', 'intuiting' and 'being' are within their consciousness. However, a lack of exposure to writing early on in their career can impact on their perceived confidence to write.

Professionals who have qualified more recently begin their midwifery journey from a stronger academic position, since they are more likely to have been educated to degree level. In the UK, the average student undertaking a degree writes at least 24 assignments – this number is higher elsewhere. The inclusion of evidence-based practice, research methods, research awareness and theoretical models for understanding practice in pre-registration and post-registration midwifery, place the modern midwife in a considerably more comfortable position with regard to understanding, undertaking and disseminating research.

Regardless of the type of paper to be published, the expectation of a 'good read' is paramount in securing the attention of readers. Rather than with an elaborate prose style, this is usually delivered through the use of considered, precise and sensitive writing. Clarity in structure, content and focus are necessary for all papers, complete with signposts that lead the reader along the arc of what the authors have to say. When researchers find the expression of this degree of clarity to be problematic, it is worth considering whether or not they have an adequately clear picture of what their work has to contribute to midwifery knowledge.

The importance of a clear, accurate and structured abstract regardless of the type of paper is hard to overemphasise. Despite being the section that is most likely to be read by the greatest number of people, many abstracts published in prestigious journals have been found to contain information that is inconsistent with or absent from the rest of the paper (Pitkin et al, 1999).

Contextual information and a rationale for the study need to be articulated appropriately. The assumption that readers are intelligent, interested and informed midwives is justified – that they will necessarily be familiar with the specific needs, policies or cultures in the authors' part of the world is not.

In providing background, papers also require a structured review of the literature. This should include information on the databases searched, medical subject headings (US National Library of Medicine, 2005) and key words used, inclusion and exclusion criteria, and numbers of papers retrieved. Authors need to present the main outcomes of the

literature search in a structured format that conveys salient points to the reader. It is important to consider how to present this carefully – as has been demonstrated previously (Lagan et al, 2006), classification frameworks and tables may be helpful in this. The most important factor is transparency, and leaving an audit trail so that other researchers following in the authors' footsteps can easily replicate or advance their work.

Of course, this last point applies to the reporting of the research as a whole. That all research recommends further research may be a cliché, but that it should enable, inform and inspire it is essential.

### **Planning and submitting a paper**

Midwives who have completed a research thesis at master's or doctoral level, a systematic review of literature, a philosophical analysis of practice or a structured critical review are in a strong position to plan a scholarly paper. Initial questions for consideration include:

- What type of evidence do the authors have to share?
- What is the level of the information to be conveyed?
- What are the key findings, issues or facts that they want to communicate?
- What is the paper's theoretical contribution?
- Who is the target audience?
- Who should be involved and credited?
- How should the paper be structured and presented?
- When is the paper ready for submission?

### *Evidence type*

Research papers have a predetermined framework regardless of the journal they are published in. While the details may vary, their overall format follows a similar pattern – abstract, introduction or background, literature review, method, results or findings, discussion, and conclusions or implications. In preparing other types of evidence such as a philosophical paper or metasynthesis, an abstract that provides a comprehensive synopsis of the whole paper is still required, and the remainder needs to be structured with clear signposts for readers to follow. A logical and sequential presentation regardless of the nature of the content is the key to writing a readable, informative and accurate paper.

### *Information level*

Readers' expectations of the academic and philosophical content of papers are often influenced by the introductory comments. By including statements such as 'this research was undertaken as part of an MSc' or 'this paper reports preliminary findings from a doctoral research study', the level of information being presented is clear from the outset. These comments may be decisive in determining whether or not a paper is downloaded, cited or included in a systematic review, and are a good foundation for the honest relationship that authors must establish with the reader.

### *Key findings, issues and facts*

Precision is a science and an art. Authors need to provide thorough but concise data about the work that they have

done, and this requires initial planning, intermediate review and final revision to ensure the balance is right. Too often, the information provided is either too wide-ranging or lacking in focus, and it is difficult to tell what is key and what is not. The reader depends on the writers to take them on a journey through their paper. This journey needs to be introduced thoughtfully, followed by a main body conveying around three salient and key features of the research. This can then be built on with relevant discussion and implications for practice, education or further research.

### *Theoretical contribution*

The main purpose of undertaking research is to further shared knowledge and understanding in some way – 'knowledge about', 'knowledge how' or 'knowledge that'. The contribution that a paper may make to what is already known about theory, practice, education or research is a central question in deciding whether or not it is publishable.

### *End-users of evidence*

EBM is an international journal that is available not only to RCM members and subscribers in the UK, but also to individuals and institutions with an interest in midwifery research across the world. When preparing a paper for EBM, it is important to consider a worldwide readership.

As well as explaining the particularities of the context in which the research has taken place, internationally-published papers should provide an international perspective and a self-awareness of their cultural and geographical specificity. This also requires sensitive consideration of cultural and political nuances and appreciation of differences in how contentious issues are understood.

### *Authorship and copyright*

In the realm of knowledge, ideas are precious. It is perhaps an irony that the more widely and freely these ideas are shared, the more important it is to ensure that credit for them is given wherever and whenever it is due.

Universities encourage publications from both students and supervisors, and it is important to consider carefully whose names should go on the paper and in what order they should appear. In cases of funded research, the chief and principal investigators and others who have contributed to data collection, analysis or interpretation, or to drafting and editing the paper should be offered an opportunity to be included as a co-author or named advisor. The initial idea for the research may have come from a supervisor, who may also have been involved in providing guidance and direction for the study and will have been actively involved in editing the thesis or research report. The first author is the most important and significant contributor to any paper and the order of the remaining contributors depends on their level of input. As recommended by the International Committee of Medical Journal Editors (1997), authors should have made a substantial contribution to the work, to the paper's drafting or revision and in giving final approval for it to be published. Individuals who have not been involved in writing the paper but who have been involved in the study

design may be credited, and their consent should be obtained in writing. Sources of funding, advice and assistance should also be acknowledged fairly.

As with most journals, EBM requires authors to sign a copyright agreement if their work is published. It is essential that any works or materials used by authors that do not belong to them is used with permission and appropriately credited (World Intellectual Property Organization, 2006).

#### *Structure and presentation*

The guidelines for authors (RCM, 2007) should be read and followed carefully when writing and submitting a paper. They describe the required format for manuscripts, but if there are any further doubts or queries, it is wise to contact the editorial team for advice.

Authors should remember that they are leading the reader through their paper. As emphasised above, a structured abstract that accurately summarises the paper is essential. Key words may be checked with local librarians or research supervisors in order to select the ones most likely to be used in seeking the information being presented. The background or introduction sets the scene and the literature review provides a structured and analytical review of existing knowledge in the subject area. In describing the research process, authors need to demonstrate that their chosen methodology has been appropriately applied. Findings should be confirmable, and conclusions have to be based on the evidence presented in the paper.

#### *Submissable quality*

It may be helpful for authors to consider the following when deciding whether a paper is ready to submit to the journal for publication:

- Will the paper make a contribution to knowledge?
- Does it fit with the style of the journal, the length of its papers and its readership?
- Is it written, structured and presented clearly?
- Have any statistics been checked carefully for accuracy and appropriateness?

If possible, it is also recommended that authors seek the opinion of someone who is able to give an objective critical appraisal before submission. A detached reader can feed back on whether they felt that they were led on a smooth journey through the paper, with clear signposting along the way. They could also give valuable insight into how well the key messages are conveyed, and what the paper's main strengths and weaknesses are.

Referencing is one area that commonly causes difficulties. Authors should check the particular referencing style used in EBM, and should avoid over-referencing – only select the most appropriate and up-to-date references (unless seminal). Where a large number of references are unavoidable, such as in a systematic literature review, it may be useful to use bibliographic software to manage them.

When authors are not native English speakers, it is imperative that they have their manuscript checked and corrected thoroughly by someone who is a native speaker. If this is not done effectively, it will not be possible for the editorial team

and referees to assess the content of the paper fairly, regardless of how valuable it may be. For guidance on aspects of scientific and technical English that are often problematic for non-native speakers, Huckin and Olsen (1991) may be a useful resource.

#### **Review and publication**

When a manuscript is submitted to EBM for publication, the editorial team acknowledge receipt, allocate it an identification number and assess its overall suitability. If there are amendments that should be made before it is seen by referees, the paper is returned to the authors with requests for specific additions or clarifications. This should not be interpreted as a rejection – it is done simply to ensure the optimal use of time for everyone involved.

If this is not required, or once the authors have responded, referees are selected by the editorial team on the basis of availability and expertise in the paper's subject area and methodology. In seeking the most valuable opinions on the papers submitted, the journal has to negotiate with some very busy schedules, but the editors endeavour to secure the most useful feedback from the most appropriate sources as rapidly as possible. If necessary, a paper may also be sent to a statistician or policy analyst for their specialist feedback. All referees are sent an anonymised version of the paper, and authors are not told who is involved in reviewing their work. This double-blinded process is not used by all journals, but EBM considers it necessary to help ensure a fair process where honest views can be expressed confidently and constructively.

Referees are asked to complete a structured review form, and they may also 'mark up' a version of the paper if this is thought to be useful. The structured form asks the following questions of reviewers:

- General impression of the paper – comment on the first impression given by the paper as an academic article suitable for publication in EBM
- Literature review – comment on the presentation of the literature, including search strategy, quality of the papers selected and analysis of reviews. Does the literature presented give the necessary breadth and depth of information required?
- Method – comment on the suitability of the method to meet research objectives and test hypotheses, method of analysis, ethical issues, research governance and access
- Findings – comment on the presentation of findings and use of illustrations, graphics and tables
- Discussion – comment on the selection of appropriate issues for discussion, and use of research findings and available literature to inform the midwifery profession
- Conclusions – views on the applicability of closing comments to sum up the paper and make an impact
- References – Harvard system is the standard used. Check style, accuracy and relevance. Feel free to suggest additional references or websites
- Tables and illustrations – comment on appropriate titles and reference in text. Are there any copyright issues that need to be addressed?

- Title and abstract – comment on the suitability of the title and the quality of the abstract. Does the abstract adequately reflect the content of the paper?
- Comments to the authors – on the strengths and weaknesses of the paper. Indicate further work required to raise the paper to a suitable standard. Suggest an alternative journal for submission if appropriate.

Referees' comments are compared by the editorial team to see how they coincide, vary or contradict. As long as there is sufficient agreement, an editorial decision can be made based on the feedback given. It is not unusual for one reviewer to feel more strongly about a particular point than another, but for them to agree in principle on that aspect of the paper. However, there are occasions when referees disagree in principle, and in these unusual situations the editorial team may ask them to clarify or revisit their positions, or may send the paper for an additional opinion from another expert.

Once a sound editorial decision can be made with confidence, this is given to the authors along with comments from the review process. The editorial team take great lengths to express this feedback sensitively and constructively – it is in the interests of all involved to work toward producing the best quality of papers possible. The editorial decision may require resubmission with minor amendments or for a significant rewrite of the paper. Alternatively, if the paper is judged to be unsuitable for EBM, suggestions for alternative publications are usually given, and this will often include *RCM Midwives Journal*.

Resubmissions are reviewed by at least one of the referees who assessed the original manuscript. The length of the

review process depends not only on how rapidly referees and authors are able to provide or address feedback, but also on how many resubmissions are needed. The more complex or significant the issues raised by reviewers, the more likely it is that a third or fourth draft may be requested. However, it is common for the first resubmission to require only minor amendments that can be made by the editorial team in consultation with the authors.

Even as the paper is formatted for printing, it is usual for additional clarifications to still be sought, but these are usually with respect to small points. One of the final tasks required of authors is for them to sign copyright forms, which give the RCM the right to publish their work. Once published, authors receive ten print copies of the issue along with final electronic versions.

### Endnote

The journey from planning a paper to its publication can be a long one, and it is typically challenging along the way. From the perspective of the editorial team, nurturing and supporting writers and reviewers throughout the process, and sustaining their spirit and motivation are the most important factors that contribute to successful outcomes.

In aiming to help foster greater rigour and capacity in midwifery research and to enable the evidence produced to be utilised in practice, education and further research, EBM sets itself high goals. Ultimately, it is the journal's engagement with both researchers and readers that will decide how well it fulfils these, but the first step is always to encourage midwives to plan, write and submit their papers for consideration. Over to you.

### References

- Bellomo R, Bagshaw SM. (2006) Evidence-based medicine: classifying the evidence from clinical trials – the need to consider other dimensions. *Critical Care* 10(5): 232.
- Hemings P, Godfrey E, Pollock L. (2003) RCM annual conference 2003: promoting the business of midwifery. *RCM Midwives Journal* 6(6): 248-51.
- Huckin TN, Olsen LA. (1991) *Technical writing and professional communication for non-native speakers of English (second edition)*. McGraw-Hill: New York.
- International Committee of Medical Journal Editors. (1997) Uniform requirements for manuscripts submitted to biomedical journals. *Annals of Internal Medicine* 126(1): 36-47.
- Lagan B, Sinclair M, Kernohan WG. (2006) Pregnant women's use of the internet: a review of published and unpublished evidence. *Evidence Based Midwifery* 4(1): 17-23.
- McSherry R, Artley A, Holloran J. (2006) Research awareness: an important factor for evidence-based practice? *Worldviews on Evidence-Based Nursing* 3(3): 103-15.
- Murphy PA. (2005) Grounding midwifery practice in evidence of all types. *Journal of Midwifery and Women's Health* 50(5): 361-2.
- Pitkin RM, Branagan MA, Burmeister LF. (1999) Accuracy of data in abstracts of published research articles. *Journal of the American Medical Association* 281(12): 1110-1.
- Potts M, Prata N, Walsh J, Grossman A. (2006) Parachute approach to evidence-based medicine. *British Medical Journal* 333(7570): 701-3.
- RCM. (2007) Guidelines for authors. *Evidence Based Midwifery* 5(1): 35.
- Rivers J. (1987) The story of the first nursing journal – Nursing Notes. *Midwives Chronicle* 100(1193): 161-3.
- Sackett DL, Rosenberg WMC, Muir Gray JA, Haynes RB, Richardson WS. (1996) Evidence-based medicine: what it is and what it isn't. *British Medical Journal* 312(7023): 71-2.
- Silverton L. (2003) First edition of *Evidence Based Midwifery*. *Evidence Based Midwifery* 1(1): 3.
- Sinclair M. (2004) The structure of the UK Research Assessment Exercise in 2008. *Evidence Based Midwifery* 2(2): 39.
- Sinclair M, Godfrey E, Ratnaik D. (2006) Making research count. *RCM Midwives Journal* 9(11): 442-3.
- Upshur REG. (2003) Are all evidence-based practices alike? Problems in the ranking of evidence. *Canadian Medical Association Journal* 169(7): 672-3.
- US National Library of Medicine. (2005) *Medical subject headings (MeSH®) fact sheet*. National Library of Medicine: Bethesda, Maryland. See: [www.nlm.nih.gov/pubs/factsheets/mesh.html](http://www.nlm.nih.gov/pubs/factsheets/mesh.html) (accessed 12 May 2007).
- World Intellectual Property Organization. (2006) *Copyright and related rights: frequently-asked questions*. World Intellectual Property Organization: Geneva. See: [www.wipo.int/copyright/en/faq/faqs.htm](http://www.wipo.int/copyright/en/faq/faqs.htm) (accessed 11 May 2007).