Writing a case study: Ensuring a meaningful contribution to the literature

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\textbf{Summary}  Case studies, also referred to as case reports, have the potential to make a meaningful contribution to the body of literature that examines clinical care. A case study should not only describe, but also facilitate understanding and convey an educational message through explanation of the chosen aspect of care. A particular strength of the case study is that it describes the clinical decision-making that progressed throughout the care, rather than just the presentation of individual elements.

Although often flexible, a case study should incorporate an introduction that presents the area of practice and outlines what is currently known from the literature. A clear and logical case description should then be provided, ensuring that essential elements of the history, current care and outcome of the patient are provided. The discussion should provide a critique of the care in the context of the known literature, including commentary on care that was not effective and exploration of possible reasons for this. Clear articulation of the educational message demonstrated throughout the case study should be evident.

Case studies have the potential to make a substantial contribution to the body of knowledge in a specific area of clinical practice. Clear implications for practice and recommendations for future research are essential to ensure a strong educational message is conveyed through the report.

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Introduction

Case studies, also referred to as case reports, have featured as a component of the healthcare literature for many years, although their full potential has not always been realised. Case studies can take multiple formats, but usually consist of a description of specific aspects of a patient’s clinical condition and care, as well as critical evaluation of at least one aspect of that condition or care. It is sometimes appropriate to review a small number of related patients, summarising their similarities and differences in order to convey the important points. The purpose of this paper is to describe the situations where a case study might be an appropriate form of publication and to outline the principles that should be adhered to when preparing a case study.

When properly prepared, the case study can be a valuable research and educational resource. A case study should not only describe, but also facilitate understanding and explain the chosen aspect of care. The reading of a case study enables learning via ‘pattern recognition’, in other words the entire picture of a patient’s condition, including usual history, care and progress. It offers the particular strength of describing the clinical decision-making that progressed throughout the care, rather than just the presentation of individual elements. Importantly, a case study not only summarises past care, but should be designed to provide new insights into care and will often stimulate research by suggesting gaps in the current body of literature or patterns in care that have not been previously recognised and need to be tested in a controlled setting.

In order to optimise the potential contribution, a case study must offer an element that is not currently available within the related literature. Although the theme of offering a new or unique perspective to the topic is common to all case studies, there are a range of purposes for case studies including to:

- Provide informative critique of patient care,
- Facilitate learning from past experiences,
- Allow clinicians to share management plans for challenging patients,
- Develop problem-solving skills,
- Facilitate development of practice guidelines.

It is important to note that not all clinical presentations of patients are suitable for use as a case study. A case study cannot just be a description of an interesting patient, with some literature that explains some aspects of patient care. It is essential that the case study contains a strong and consistent educational message which might include aspects such as raising awareness of an issue, outlining a new understanding of a condition, complication or component of care or clarifying a previously unclear aspect of pathophysiology or care. That educational message must be conveyed in a clear and practical manner to ensure value to the reader and application to their practice setting.

Authorship of a case study should be considered carefully. It is often the first type of publication undertaken by authors and represents an informative method of learning the publication process. However sole authorship should rarely be undertaken, instead the support and critical appraisal of a number of colleagues, as well as clinical mentors, offers the most likely team to ensure a strong contribution to the literature. When developing the authorship team, consideration should be given to ensuring that at least one member of the authorship team has previous experience in publishing.

How to write your case study

During the preparation phase for writing your case study the following processes need to be undertaken:

- Identify the episode of patient care that is to be written up for publication,
- Determine the educational message that is to be conveyed in the case study,
- Identify your target audience and therefore your target journal.

During the process of identifying the episode of patient care that is to be written up for publication it is necessary to undertake an extensive search to determine the presence of related literature. The planned case study must make a unique contribution to the body of literature, therefore if several other reports of similar patients already exist it is necessary to consider whether you are able to address an aspect that is not currently reported or analysed. Only if you believe you are able to contribute additional understanding about a patient’s condition or care you should proceed with the case study.

Identify your target audience. This will involve considering not only the group of clinicians who you wish to target, but the journal that is most appropriate to access this audience. Considerations will include whether you wish to access a speciality or generalist audience, if you want it to be specific to the nursing profession or a multi-disciplinary audi-
ence and whether your case study is most relevant to clinicians in a specific country or geographical region.

Once you have identified your target audience, and therefore your journal of choice, you should thoroughly read the instructions for authors and also review several issues of the journal if you are not familiar with the usual content. In reviewing the journal you should consider aspects such as whether the journal normally publishes case studies, what structure is used, the recommended length of the manuscript and any other specific guidelines.

Principles of a case study

Although case studies all vary in their precise structure and purpose, they should all conform to a number of common principles. These principles should be considered during the planning phase of writing your case study (Fig. 1). One of the benefits of a case study is that you are often able to write in a more relaxed and active manner than the usual scientific report—this will increase the ease with which the case study can be read, but does not provide a license for poor structure or grammar.

Structure of a case study

The usual structure of a case study will include an abstract, introduction, patient description, discussion and conclusion. Although the precise structure and composition of these sections will be dependent on the requirements of the journal in which you intend publishing, there are many common elements that should be considered (see Fig. 2 for checklist)2,4–7

The abstract will usually be structured and include a brief overview of each of the subsequent components of the manuscript. The abstract should also describe the clinical problem or aspect of care that forms the central theme for the manuscript and should clearly state the educational message that is being conveyed.

The introduction of a case study sets the scene, including outlining how common the situation or condition is and what makes this particular patient interesting. The introduction should link the characteristics of this patient to the known literature so that the reader is able to immediately refer to other related work. An extensive review of the literature is usually not necessary or desirable, rather this section should concentrate on highly relevant literature that helps to set the scene for the patient description.6 Importantly, the introduction should establish the contribution this case study is going to make to the known literature, in other words it justifies the publication.2

The patient description should include all relevant background such as the patient’s past health history, relevant social history and current problems. The patient history should be followed by an appropriate description of relevant aspects of care including assessment and treatment information, interpersonal care and care of the family. This description must include sufficient but not unnecessary detail to ensure comprehensiveness, clarity

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| Ensure the case presentation is factual, concise and logically presented |
| Describe a real patient who required significant and challenging care |
| Make no attempt to generalise care beyond this specific patient |
| Identify a patient who is sufficiently complex to raise interesting care issues |
| Ensure the patient is not so rare that few readers will care for a similar patient |
| All aspects of background that impact on care should be described |
| The patient outcome should be included |
| Incorporate relevant illustrations |
| Maintain privacy of patient and gain patient consent prior to journal submission |
| Critically appraise care |
| Incorporate relevant literature |

Fig. 1 Principles of a case study.
and conciseness. The sequencing of information is important and should follow the natural history of the patient and be revealed in an order that approximates usual clinical practice. Specific points to consider when presenting the patient details include:

- Avoid lengthy lists of patient observations—a narrative summary and provision of pertinent observations will often convey more meaningful information to the reader.
- Use tables if presenting information across a series of time periods,
- Ensure data presented is specific to the clinical condition being discussed.

The discussion within a case study provides a critique of the care that was provided. There should be commentary on care that was not effective, including an assessment of possible reasons for the lack of effectiveness. This discussion should incorporate relevant literature and comments on the consistency of this case study with the literature. Other plausible explanations for the patient’s condition and response to care should be reviewed, with a summary of recommendations for future care provided.\(^1\) If novel management strategies were incorporated in patient care a comprehensive and clear description should be provided and include, where appropriate, the principles and rationale underpinning the development of such strategies.
Remember it is essential to highlight the educational message by integrating the individual case study with what is already known in this area of practice.

Ethical considerations in preparing a case study for publication have received increasing attention over recent years. While there remains some controversy regarding the need for patient consent, or alternatively the right of an individual to prevent sharing of information that has the potential to assist in the care of other patients, the majority of journals now require patient consent if personal health information is to be published. Given that many of the patients who are described in a case study are somewhat unusual in their presentation or care, and therefore potentially recognisable, it is important to consider the privacy requirements of each individual and seek this consent. This requirement is consistent with the World Medical Association Declaration of Helsinki and the International Committee of Medical Journal Editors. Some journals provide specific forms for this consent, while others will accept consent forms used by the author’s institutions.

Conclusion

Case studies have the potential to make a significant contribution to the body of knowledge in a specific area of clinical practice. However in order to make optimal contribution it is essential that the case study has a strong, consistent educational message throughout the report. In addition, an outline of the implications for practice and recommendations for future research are necessary.

References