

Viewpoints

The importance of medical case reports

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Abstract The essay emphasises the importance of medical case reports. It defines the medical case report by referring to Sigmund Freud's and Paul Pierre Broca's works and analyses the attitude of the medical scientific community towards this type of publication. A question arises whether case reports still have a role in furthering medical knowledge and education. An overview of the applied linguistics literature on this subject is presented.

Keywords Biomedicine; case report; scientific community; applied linguistics; medical education.

Medical case reports, called "case notes" in the 19th century and "case histories" or "case studies" later on, are defined as uncontrolled scientific observations of a single clinical observation or "circumstantialities" that must be carefully documented to serve as valuable education and research tools.² Sir William Osler (1849-1919), the father of modern medicine and one of the founding professors at Johns Hopkins Hospital, himself the author of many case reports, encouraged physicians to "always note and record the unusual... and publish it".²

Case reports have made and still make a valuable contribution to the advancement of medical science.^{3,4} McCarthy and Reilly report that a search of the MEDLINE database from 1996 to 2000 using the term "case report" retrieves more than 140,000 records.⁴ A more recent search of Web of Science using the same term retrieved just 160 articles in 1953 and 4,011 in 2006.⁵

Many medical professionals may come across patients with unusual clinical presentation or reactions to medical interventions not described in textbooks. Publication of such curiosities has been a fundamental way of sharing knowledge and conveying medical experience for centuries. Throughout history, there have been famous case reports that helped to describe certain diseases and to distinguish health from disease states.⁶

Famous case reports

Sigmund Freud, best known for his psychoanalysis and theories of the unconscious mind, had a special interest in recording case histories of his patients.⁷ Many of his case reports helped further our understanding of a number of mental health disorders (e.g. compulsive-obsessive disorder, dissociative disorders, post-traumatic stress syndrome, and phobias). A French physician and anatomist, Paul Pierre Broca, discovered the speech production centre located in the left hemisphere by studying the brains of dysphasic patients and recording their histories.⁸ A report published in the *American Journal of Dermatopathology* was one of the first cases of what is now termed AIDS.⁹ Taatvisainen and

Pahta noted that reports of illustrative and typical cases were instrumental in the early periods of medical education.¹⁰ In our times, medical case reports largely focus on rare and atypical manifestations of diseases.¹¹

Why case reports are still important

Case reports may lead to systematic or hypothesis-based research, and the accurate description of a single patient's case may form the basis for further exploration of the observed phenomenon, opening new fields of interest.¹² Vandembroucke stated that there is no other way but a series of cases to bring a potentially new disease to the attention of the medical community.¹³ Matthew Cockerill, publisher of *The Journal of Medical Case Reports*, argues that unique case reports can be valuable for researchers and physicians through depicting new adverse drug reactions or disease symptoms overlooked elsewhere.⁵

Importantly, different branches of medical education, such as physiology, pathology, pharmacology and anatomy, are brought together in case reports, helping students and physicians develop a holistic approach to patients.⁶ Also, writing case reports may help improve academic writing skills. Overlooking relevant literature, structuring a manuscript, and learning how to submit and revise it are essential skills for novice researchers, often started with case reports.

Attitude of the modern scientific community towards case reports

Case reports have lost favour since the 1990s and sole reports are now considered the lowest level of scientific evidence, owing to their anecdotal nature. Some even argue that CRs are "passé, trivial"¹⁴ and increasingly irrelevant to current medical practice and education.¹⁵

Case reports are poorly cited: Patsopoulos *et al* found that of 416 case reports published between 1991 and 2001, less than two percent received at least 10 citations in the first two years of publication.¹⁶ Because of this disadvantageous effect on impact factor and space limitations, many medical journals now exclude them.

Educational articles, including case reports, however, are the most widely read items of a scholarly journal.¹² This is why some mainstream journals are now providing more space for case reports, and there are some new, primarily online, journals dedicated to them, e.g. *BMJ Case Reports*, *The American Journal of Case Reports*, *Journal of Medical Case Reports*, *Clinical Medicine Insights: Case Reports*, *International Medical Case Reports*, *Journal of Radiology Case Reports*. These journals may serve as case banks, allowing doctors all over the world to share new and interesting cases.

Applied linguistics literature on case reports

Some experts in rhetoric and applied linguistics have studied case reports from their perspective. Atkinson examined the development of this narrative genre in the *Edinburgh Medical and Surgical Journal*.¹⁷ Taatvisainen and Phata, by means of a qualitative analysis of some text-internal linguistic features, traced the development of case reports from the late 19th century to 1995, highlighting the increasing depersonalisation of the genre.¹⁸ Berkenkotter examined the evolving role of case history narratives in the growth of psychiatry as a profession.¹⁹ At the same time, Hunter studied medical case narratives in general and stressed the paradox at the heart of contemporary medicine—the tension between Baconian science based on empirical observations and the laboratory-based experimental medicine of Bernard, Pasteur and Lister.¹ More recently, Murawska examined the construction of impersonality with respect to agency and patient presentation in the main body of medical case reports, concluding that agency and patient presentation in current medical case reports are in line with the commonly held assumption that medicine focuses on a patient as a case of a given disease and not the whole person experiencing illness.²⁰

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Competing interests

None declared.

References

- Hunter KM. Doctors' stories: The narrative structure of medical knowledge. Princeton, NJ: Princeton University Press, 1993.
- Coccia CT, Ausman JI. Is a case report an anecdote? In defense of personal observations in medicine. *Surgical Neurology* 1987;28(2):111-113.
- Simpson RJ Jr, Griggs TR. Case reports and medical progress. *Perspectives in Biology and Medicine* 1985;28(3):402-406.
- McCarthy LH, Reilly KE. How to write a case report. *Family Medicine* 2000;32(3):190-195.
- Gawrylewski A. Case reports: essential or irrelevant? *The Scientist*. Published 14th May 2007. Available at <http://classic.the-scientist.com/news/display/53192> (Accessed 2nd January 2012).
- Jamjoom AAB, Nikkar-Esfahani A, Fitzgerald JEF. Writing a medical case report. *Student BMJ* 2009;17:b5274. doi: 10.1136/sbmj.b5274
- Heller S. Freud A to Z. Wiley, 2005.
- Schiller F. Paul Broca: founder of French anthropology, explorer of the brain. Oxford University Press, 1992.
- Gottlieb GJ, Ragaz A, Vogel JV, Friedman-Kien A, Rywlin AM, Weiner EA, Ackerman AB. A preliminary communication on extensively disseminated Kaposi's sarcoma in young homosexual men. *The American Journal of Dermatopathology* 1981;3(2):111-114.

- Taatvisainen I, Pahta P. Vernacularisation of medical writing in English: a corpus-based study of scholasticism. *Early Science and Medicine* 1998;3(2):157-185.
- Cohen H. How to write a patient case report. *American Journal of Health-System Pharmacy* 2006;63(19):1888-1892. doi: 10.2146/ajhp060182
- van der Wall EE, Wilde AA. Case histories: increasing role for major journals. *Netherlands Heart Journal* 2009;17(7-8):272-273.
- Vandembroucke JP. Case reports in an evidenced-based world. *Journal of the Royal Society of Medicine* 1999;92(4):159-163.
- Rose JC, Corn M. Dr. E. and other patients: new lessons from old case reports. *Journal of the History of Medicine and Allied Sciences* 1984;39(1):3-32. doi: 10.1093/jhmas/39.1.3
- Yadav H. The philosophy of the medical case. *Student BMJ* 2006;14:133-176.
- Patsopoulos NA, Analatos AA, Ioannidis JP. Relative citation impact of various study designs in the health sciences. *JAMA* 2005;293(19):2362-2366. doi: 10.1001/jama.293.19.2362
- Atkinson P. Medical Talk and Medical Work. London: Sage Publications Ltd, 1995.
- Taatvisainen I, Pahta P. Conventions of professional writing: the medical case report in a historical perspective. *Journal of English Linguistics* 2000;28(1):60-76. doi: 10.1177/00754240022004875
- Berkenkotter C. Patient tales: case histories and the uses of narrative in psychiatry. Columbia: University of South Carolina Press, 2008.
- Murawska M. Impersonality in medical case reports. In Rosa Lorés-Sanz, Pilar Mur-Dueñas and Enrique Lafuente-Millán (Eds). *Constructing Interpersonality: Multiple Perspectives on Written Academic Genres*. Cambridge Scholars Press, 2010: 311-325.

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