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خدائی

کہ دانندہ می را از ہاست



انواع مقالات در علوم پزشکی

دکتر نادیا صنیعی

استادیار کتابداری و اطلاع رسانی پزشکی

مسئول علم سنجی و سرپرست انتشارات، دبیر کمیته استعدادهای درخشان

دبیر کمیته طرح های نوآورانه آموزشی مبتنی بر شواهد، رئیس کمیته دانشجویی توسعه آموزش

دبیر کمیته دانش پژوهی آموزشی

عضو کمیته های پاسخگویی اجتماعی، مرجعیت و آینده پژوهی، و توانمندسازی و ارزشیابی اساتید

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Types of Medical Articles

- Original Article
- Review Article
- Case Reports and case series
- Methodologies or Methods
- Editorial
- Short Communication (short papers)
- Letter to Editor
- Personal Views or commentaries
- Opinion articles
- Perspectives

Original articles

- This is the most common type of journal manuscript used to publish full reports of data from research. It may be called an *Original Article*, *Research Article*, *Research*, or just *Article*, depending on the journal. The Original Research format is suitable for many different fields and different types of studies. It includes full Introduction, Methods, Results, and Discussion sections (IMRAD).
- [Example: https://drc.bmj.com/content/bmjdr/8/1/e001061.full.pdf](https://drc.bmj.com/content/bmjdr/8/1/e001061.full.pdf)

Review Article

- Review Articles provide a comprehensive summary of research on a certain topic, and a perspective on the state of the field and where it is heading. They are often written by leaders in a particular discipline after invitation from the editors of a journal.
- Reviews are often widely read (for example, by researchers looking for a full introduction to a field) and highly cited. Reviews commonly cite approximately 100 primary research articles.
- *If you would like to write a Review but have not been invited by a journal, be sure to check the journal website as some journals do not consider unsolicited Reviews. If the website does not mention whether Reviews are commissioned it is wise to send a pre-submission enquiry letter to the journal editor to propose your Review manuscript before you spend time writing it.*
- Example: <file:///C:/Users/Royal/Downloads/jpm-10-00023.pdf>

Types of review article

Table 1 Main review types characterized by methods used

Label	Description	Methods used (SALSA)			
		Search	Appraisal	Synthesis	Analysis
Critical review	Aims to demonstrate writer has extensively researched literature and critically evaluated its quality. Goes beyond mere description to include degree of analysis and conceptual innovation. Typically results in hypothesis or model	Seeks to identify most significant items in the field	No formal quality assessment. Attempts to evaluate according to contribution	Typically narrative, perhaps conceptual or chronological	Significant component: seeks to identify conceptual contribution to embody existing or derive new theory
Literature review	Generic term: published materials that provide examination of recent or current literature. Can cover wide range of subjects at various levels of completeness and comprehensiveness. May include research findings	May or may not include comprehensive searching	May or may not include quality assessment	Typically narrative	Analysis may be chronological, conceptual, thematic, etc.
Mapping review/ systematic map	Map out and categorize existing literature from which to commission further reviews and/or primary research by identifying gaps in research literature	Completeness of searching determined by time/scope constraints	No formal quality assessment	May be graphical and tabular	Characterizes quantity and quality of literature, perhaps by study design and other key features. May identify need for primary or secondary research
Meta-analysis	Technique that statistically combines the results of quantitative studies to provide a more precise effect of the results	Aims for exhaustive, comprehensive searching. May use funnel plot to assess completeness	Quality assessment may determine inclusion/exclusion and/or sensitivity analyses	Graphical and tabular with narrative commentary	Numerical analysis of measures of effect assuming absence of heterogeneity

Types of review article

		Assess completeness	Sensitivity analysis		
Mixed studies review/mixed methods review	Refers to any combination of methods where one significant component is a literature review (usually systematic). Within a review context it refers to a combination of review approaches for example combining quantitative with qualitative research or outcome with process studies	Requires either very sensitive search to retrieve all studies or separately conceived quantitative and qualitative strategies	Requires either a generic appraisal instrument or separate appraisal processes with corresponding checklists	Typically both components will be presented as narrative and in tables. May also employ graphical means of integrating quantitative and qualitative studies	Analysis may characterise both literatures and look for correlations between characteristics or use gap analysis to identify aspects absent in one literature but missing in the other
Overview	Generic term: summary of the [medical] literature that attempts to survey the literature and describe its characteristics	May or may not include comprehensive searching (depends whether systematic overview or not)	May or may not include quality assessment (depends whether systematic overview or not)	Synthesis depends on whether systematic or not. Typically narrative but may include tabular features	Analysis may be chronological, conceptual, thematic, etc.
Qualitative systematic review/qualitative evidence synthesis	Method for integrating or comparing the findings from qualitative studies. It looks for 'themes' or 'constructs' that lie in or across individual qualitative studies	May employ selective or purposive sampling	Quality assessment typically used to mediate messages not for inclusion/exclusion	Qualitative, narrative synthesis	Thematic analysis, may include conceptual models

Types of review article

Label	Description	Methods used (SALSA)			
		Search	Appraisal	Synthesis	Analysis
Rapid review	Assessment of what is already known about a policy or practice issue, by using systematic review methods to search and critically appraise existing research	Completeness of searching determined by time constraints	Time-limited formal quality assessment	Typically narrative and tabular	Quantities of literature and overall quality/direction of effect of literature
Scoping review	Preliminary assessment of potential size and scope of available research literature. Aims to identify nature and extent of research evidence (usually including ongoing research)	Completeness of searching determined by time/scope constraints. May include research in progress	No formal quality assessment	Typically tabular with some narrative commentary	Characterizes quantity and quality of literature, perhaps by study design and other key features. Attempts to specify a viable review
State-of-the-art review	Tend to address more current matters in contrast to other combined retrospective and current approaches. May offer new perspectives on issue or point out area for further research	Aims for comprehensive searching of current literature	No formal quality assessment	Typically narrative, may have tabular accompaniment	Current state of knowledge and priorities for future investigation and research
Systematic review	Seeks to systematically search for, appraise and synthesis research evidence, often adhering to guidelines on the conduct of a review	Aims for exhaustive, comprehensive searching	Quality assessment may determine inclusion/exclusion	Typically narrative with tabular accompaniment	What is known; recommendations for practice. What remains unknown; uncertainty around findings, recommendations for future research

Types of review article

Systematic search and review	Combines strengths of critical review with a comprehensive search process. Typically addresses broad questions to produce 'best evidence synthesis'	Aims for exhaustive, comprehensive searching	May or may not include quality assessment	Minimal narrative, tabular summary of studies	What is known; recommendations for practice. Limitations
Systematized review	Attempt to include elements of systematic review process while stopping short of systematic review. Typically conducted as postgraduate student assignment	May or may not include comprehensive searching	May or may not include quality assessment	Typically narrative with tabular accompaniment	What is known; uncertainty around findings; limitations of methodology
Umbrella review	Specifically refers to review compiling evidence from multiple reviews into one accessible and usable document. Focuses on broad condition or problem for which there are competing interventions and highlights reviews that address these interventions and their results	Identification of component reviews, but no search for primary studies	Quality assessment of studies within component reviews and/or of reviews themselves	Graphical and tabular with narrative commentary	What is known; recommendations for practice. What remains unknown; recommendations for future research

Types of review article

- Critical review: https://www.emerald.com/insight/content/doi/10.1108/10662240410542670/full/pdf?casa_token=N9mZ9DVRM2AAAAAA:LXBPCCTiYcBzr8fL50tBvXEKQDxSB_hdMx_532A3w2oCwMNFIXSvb1An_wbu71g4kEiAKCaL37xKjz6gZrerHWo8JT2Wt4HLFxprkHxJ5e6fTOugTo
- Literature review: <file:///C:/Users/Royal/Downloads/rmv.2146.pdf>
- Mapping review: <file:///C:/Users/Royal/Downloads/our%20article.pdf>
- Meta-analysis: <file:///C:/Users/Royal/Downloads/ijerph-16-02735-v2.pdf>

Types of review article

- Mixed methods review: <http://eprints.rclis.org/40889/1/c6501en.pdf>
- Overview: <file:///C:/Users/Royal/Downloads/j.1471-1842.2007.00733.x.pdf>
- Qualitative systematic review:
<https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/s12913-015-0879-z.pdf>
- Rapid review: <file:///C:/Users/Royal/Downloads/uog.22014.pdf>
- Scoping review: <https://link.springer.com/content/pdf/10.1186/s40985-016-0043-2.pdf>
- State of art review:
<https://bmcmedinformdecismak.biomedcentral.com/track/pdf/10.1186/s12911-016-0354-8.pdf>

Types of review article

- Systematic review: <https://bmcmmededuc.biomedcentral.com/track/pdf/10.1186/s12909-019-1744-2.pdf>
- Systematized review: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8106744/pdf/JAMP-9-63.pdf>
- Umbrella review: <https://link.springer.com/content/pdf/10.1007/s41999-019-00233-w.pdf>

Types of systematic review

Table 1 Types of reviews

Review Type	Aim	Question Format	Question Example
Effectiveness	To evaluate the effectiveness of a certain treatment/practice in terms of its impact on outcomes	Population, Intervention, Comparator/s, Outcomes (PICO) [23]	What is the effectiveness of exercise for treating depression in adults compared to no treatment or a comparison treatment? [69]
Experiential (Qualitative)	To investigate the experience or meaningfulness of a particular phenomenon	Population, Phenomena of Interest, Context (PICo) [13]	What is the experience of undergoing high technology medical imaging (such as Magnetic Resonance Imaging) in adult patients in high income countries? [70]
Costs/Economic Evaluation	To determine the costs associated with a particular approach/treatment strategy, particularly in terms of cost effectiveness or benefit	Population, Intervention, Comparator/s, Outcomes, Context (PICOC) [14]	What is the cost effectiveness of self-monitoring of blood glucose in type 2 diabetes mellitus in high income countries? [71]
Prevalence and/or Incidence	To determine the prevalence and/or incidence of a certain condition	Condition, Context, Population (CoCoPop) [15]	What is the prevalence/incidence of claustrophobia and claustrophobic reactions in adult patients undergoing MRI? [72]

Types of systematic review

Diagnostic Test Accuracy	To determine how well a diagnostic test works in terms of its sensitivity and specificity for a particular diagnosis	Population, Index Test, Reference Test, Diagnosis of Interest (PIRD) [16]	What is the diagnostic test accuracy of nutritional tools (such as the Malnutrition Screening Tool) compared to the Patient Generated Subjective Global Assessment amongst patients with colorectal cancer to identify undernutrition? [73]
Etiology and/or Risk	To determine the association between particular exposures/risk factors and outcomes	Population, Exposure, Outcome (PEO) [17]	Are adults exposed to radon at risk for developing lung cancer? [74]
Expert opinion/policy	To review and synthesize current expert opinion, text or policy on a certain phenomena	Population, Intervention or Phenomena of Interest, Context (PICo) [18]	What are the policy strategies to reduce maternal mortality in pregnant and birthing women in Cambodia, Thailand, Malaysia and Sri Lanka? [75]

Types of systematic review

Psychometric	To evaluate the psychometric properties of a certain test, normally to determine how the reliability and validity of a particular test or assessment.	Construct of interest or the name of the measurement instrument(s), Population, Type of measurement instrument, Measurement properties [31, 32]	What is the reliability, validity, responsiveness and interpretability of methods (manual muscle testing, isokinetic dynamometry, hand held dynamometry) to assess muscle strength in adults? [76]
Prognostic	To determine the overall prognosis for a condition, the link between specific prognostic factors and an outcome and/or prognostic/prediction models and prognostic tests.	Population, Prognostic Factors (or models of interest), Outcome (PFO) [20, 34–36]	In adults with low back pain, what is the association between individual recovery expectations and disability outcomes? [77]
Methodology	To examine and investigate current research methods and potentially their impact on research quality.	Types of Studies, Types of Data, Types of Methods, Outcomes [39] (SDMO)	What is the effect of masked (blind) peer review for quantitative studies in terms of the study quality as reported in published reports? (question modified from Jefferson 2007) [40]

Types of systematic review

- Effectiveness:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004366.pub6/epdf/full>

- Epriential (qualitative review):

<https://www.sciencedirect.com/science/article/abs/pii/S1078817411000642>

- Cost/economic evaluation:

https://journals.lww.com/jbisrir/Abstract/2010/08070/Self_monitoring_of_blood_glucose_in_type_2.1.aspx

- Prevalence/incidence review:

<https://www.sciencedirect.com/science/article/abs/pii/S1078817414001576>

Types of systematic review

- Diagnostic accuracy test review:
https://journals.lww.com/jbisrir/Abstract/2015/13040/Diagnostic_test_accuracy_of_nutritional_tools_used.12.aspx
- Etiology/risk: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6370015/pdf/medi-98-e14084.pdf>
- Expert opinion review:
https://journals.lww.com/jbisrir/Fulltext/2010/08161/Maternal_mortality_in_Cambodia_Thailand_Malaysia.14.aspx
- Psychometric:
https://journals.lww.com/jbisrir/Abstract/2014/12050/Muscle_strength_in_adults_with_spinal_cord_injury.15.aspx
- Prognostic: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD011284.pub2/epdf/full>
- Methodology: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.MR000016.pub2/abstract>

Case Reports and case series

- These articles report specific instances of interesting phenomena. A goal of Case Studies is to make other researchers aware of the possibility that a specific phenomenon might occur. This type of study is often used in medicine to report the occurrence of previously unknown or emerging pathologies. Case report focuses on one phenomenon, while case series on two or more phenomena or diseases or persons
- Example:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6900620/pdf/10.1177_2050313X19893580.pdf
- <https://www.medrxiv.org/content/10.1101/2020.03.09.20033118v1.full.pdf>

Methodologies or Methods

- These articles present a new experimental method, test or procedure. The method described may either be completely new, or may offer a better version of an existing method. The article should describe a demonstrable advance on what is currently available.
- Example: <https://europepmc.org/article/med/3095258>

Short Communication (short papers)

- These papers communicate brief reports of data from original research that editors believe will be interesting to many researchers, and that will likely stimulate further research in the field. As they are relatively short the format is useful for scientists with results that are time sensitive (for example, those in highly competitive or quickly-changing disciplines).
- This format often has strict length limits, so some experimental details may not be published until the authors write a full *Original Research* manuscript. These papers are also sometimes called *Brief communications*.
- Example: <https://link.springer.com/content/pdf/10.1007/s00484-017-1399-9.pdf>

Editorial

- **Editorials** are short, invited opinion pieces that discuss an issue of immediate importance to the research community. Editorials should have fewer than 1000 words total, no abstract, a minimal number of references (definitely no more than 5), and no figures or tables (although they do have a photograph of the author as an illustration).
- Example: <https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/s12889-020-08671-z>

Letter to editor

- A letter to the editor provides a means of communication between the author of an article and the reader of a journal, allowing continued dialog about journal content to take place. Although not original research per se, a letter may provide new insight, make corrections, offer alternate theories, or request clarification about content printed in the journal. By providing additional information, the evidence may be strengthened
- Example: <https://www.jkms.org/Synapse/Data/PDFData/0063JKMS/jkms-35-e159.pdf>

Personal Views or Commentaries

- Commentaries draw attention to or present criticism on a previously published article, book, or report, often using the findings as a call to action or to highlight a few points of wider relevance to the field.
- Commentaries do not include original data and are heavily dependent on the author's perspective or anecdotal evidence from the author's personal experience to support the argument.
- Commentaries are usually very short articles, of around 1000-1500 words, and are in most cases invited by Editors from reviewers or experts in the field. They include a few references, and one or two tables and figures. Some journals require abstracts for commentaries, while others do not. The desired word count for these articles is also journal-specific. Authors should, therefore, read the guidelines provided by the journal carefully before they begin writing.
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1116692/pdf/861.pdf>

Opinion articles

- Opinion articles present the author's viewpoint on the strengths and weaknesses of a hypothesis or scientific theory. Opinion articles are generally based on constructive criticism and should be backed by evidence. However, opinion articles do not contain unpublished or original data. These articles promote scientific discourse that challenges the current state of knowledge in a particular field.
- Opinion pieces are also relatively short articles, of around 2000-2500 words, typically with a short abstract of about 150 words, at least five references, and one or two figures or tables.
- Example: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6814615/pdf/aging-11-102355.pdf>

Perspectives

- Perspectives present a new and unique viewpoint on existing problems, fundamental concepts, or prevalent notions on a specific topic, propose and support a new hypothesis, or discuss the implications of a newly implemented innovation. Perspective pieces may focus on current advances and future directions on a topic, and may include original data as well as personal opinion.
- These are usually short peer-reviewed articles of around 2000-3000 words. A perspective article usually includes a short abstract of around 150 words and a few tables and figures, if required.
- Example: <file:///C:/Users/Royal/Downloads/1-s2.0-S0301008218302120-main.pdf>

Do you have any question???



Thanks for your attention



**"Stay positive.
Better days are
on their way."**

—Unknown