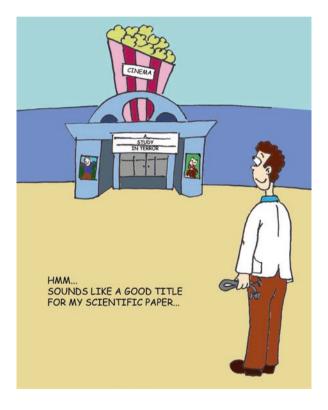
Title

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Title is the key part of the article which should be designed to engage the readers attention at first sight

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Key Points

- The title, abstract, and keywords often hold the key to publication success.
- The title of an article should be simple, precise, and catchy.
- The title should contain pertinent, descriptive words pertaining to the research.
- The three most commonly used types of titles are declarative, descriptive, and interrogative titles.
- Running title is an abbreviated form of the main title, usually cited at the top of each published page or left-hand text pages.
- Running title serves to guide a reader while scanning through a journal or toggling through multiple pages of the journal online.
- Title page is the first page of the manuscript which contains general information about the article and the authors.
- Title page generally consists of 11 main components mainly the title, running title, author names, affiliations, number of pages of the manuscript, no. of figures, tables, references, conflict of interest, source of funding, acknowledgments, and disclaimers.
- The covering letter is a vital document, which serves to create an important first impression on the editor.
- The goal of a covering letter is to convey to the editor how the manuscript meets the criteria of the journal to which it is submitted.

3.1 Introduction

Scientific writing has the difficult task of capturing and holding the attention of a researcher sitting through mountainous volumes of literature without having the liberty of using the full flowery power of the language.

While writing an article, it is always recommended to follow the author's guidelines of the specific journal. General guidelines have also been laid out by the International Committee of Medical Journal Editors (ICMJE). The ICMJE website has freely accessible recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals [1]. There are also other sources available like the Authors' Submission Toolkit, drafted by the British Medical Journals [2]. Both these resources summarize the best practices required for manuscript preparation and submission to a journal.

3.2 Title

The title is the first part of the research paper, which the editor reads. Researchers often struggle to write good titles for their research. They spend most of the time writing the principal part of the research including methods, results, and discussion. Little time and thought are spared for the title, keywords, and abstract. However, the

title, abstract, and keywords are the three most decisive factors which play a pivotal role in communicating the crux of the research to the readers and editors.

Most often, the title of the research paper functions as the sole factor which influences the decision of the readers on whether to read or skip a particular paper. However, there are no standard guidelines for writing a good title in various scientific disciplines [3]. Seeking the professional assistance of a research paper writing service could help the author write the paper, but the best judge of the paper would be the author.

3.3 Importance of Writing a Relevant Title

Title, abstract, and keywords often hold the key to publication success. Haggan (2003) observed a trend toward titles being more informative and referred to them as "texts in miniature" [4]. Essentially a title provides a description of the complete article. It gives information to the readers regarding the essence of the research paper and helps them decide whether to read the paper or not.

It also includes information that will help in the electronic retrieval of the article, as most search engines and journal websites use words in the title, keywords, and abstract to display the article to readers. Most people use electronic databases, to find relevant articles, and therefore it is imperative that the title represents a reliable summary of the researcher's work or else it will not be displayed in the search results [5–7].

The title and abstract are most often the parts of a paper that are freely available online. Hence, once the readers find the paper, the title and abstract will be the deciding factor which determines whether the reader purchases a copy of the paper and continues reading [7].

3.4 There Are Three Basic Rules to Be Followed While Writing a Title

1. The title should be simple, precise, and catchy.

The main function of a title is to provide a concise summary of the research. Therefore, the title should be brief and clear. One should use active verbs and avoid complicated noun-based phrases. A lengthy title will distract the readers' attention away from the important aspects of the research. The title should also be able to convey to nonspecialists [example is the editor of a journal] the gist of the article.

Ideally, the title should be written after one has completed writing the main article and has developed an in-depth knowledge and understanding of the article contents. This will help in writing a clear concise and scientific title. The guidelines of the *Publication Manual of the American Psychologist Association* recommend simplicity and brevity to avoid misleading indexing services [5]. The title generally should not exceed 150 characters or 12–16 words, though this should be tailored to the instructions of the specific journal.

2. The title should contain pertinent, descriptive words pertaining to the research.

The title should be as specific as possible and include some of the keywords listed in the manuscript. It should accurately reflect the nature and focus of the study. Information about the study design should be a part of the title especially for randomized controlled trials [RCTs], systematic reviews, and meta-analyses. This is mandated by many journals. If the article reports on results using solely nonhuman model systems, the species must be specified in the title.

The following format can be used as a rough guide for writing a title – research question + research design + population + geographic area of study (what, how, with whom, where). The last two may be excluded in case of word constraints. There is no full stop at the end of the title.

For example, "Prevalence of iron deficiency anemia before and after food fortification with iron in a rural community in North India, a randomized controlled trial" (23 words, 147 characters with spaces).

3. Avoid abbreviations/numerical parameters in the title.

As a rule, abbreviations are not used in the title, but if for some reason commonly used abbreviations are used in the title, they should be defined in the abstract. If the article reports on results using solely nonhuman model systems, the species must be specified in the title.

For example, "Dosimetric profile of VMAT in post-mastectomy radiotherapy" uses abbreviations which may not be immediately familiar to the readers. A more suitable title would be "Dosimetric profile of volumetric modulated arc therapy in post-mastectomy patients."

For example, "The use of morphine decreases the duration of pain by 14 h in patients with bone metastasis" uses a numerical parameter which is unnecessary and may decrease the relevance of the article.

3.5 Types of Titles

There are many different types of titles, but the three most commonly used ones have been outlined by Jamali and Nikzad [8, 9]:

(a) Declarative Titles – Declarative title state the main findings stated in the paper. These titles convey the most information and are the most appropriate for research articles.

For example, "Food fortification decreases the prevalence of iron deficiency anemia in rural India."

(b) Descriptive Titles – Descriptive title describes the subject of the research without revealing the conclusions. It includes the relevant information of the research hypothesis which is studied (e.g., participant, intervention, control, and outcome; PICO). A descriptive title has certain advantages. The readers will get a snapshot information about the contents of the article. A descriptive title contains important "keywords," which increases the probability of the article being discovered by the search engines [10]. Unlike a declarative title, the conclusions are also not revealed and it will help to sustain a reader's curiosity.

For example, "Effect of food fortification on the prevalence of iron deficiency anemia in rural India."

(c) Interrogative Titles – Interrogative title poses the subject of research as a question. They are more appropriate for literature reviews. For example, "Does food fortification decrease the prevalence of iron deficiency anemia in rural India?"

Generally, of the three types, descriptive titles are the most commonly used. Titles can also be classified based on the construction of the sentence. They are categorized into three groups – nominal titles, compound titles, or a full sentence.

- (a) Nominal titles capture the main essence of the paper, e.g., "The effect of fast food on obesity and weight gain."
- (b) Compound titles or hanging titles consist of two parts separated by a colon. Dividing a title into two parts helps to provide additional information on the study design, e.g., "Impact of food fortification in children with iron deficiency anemia: a randomized controlled trial."

It also provides information regarding the geographic area, e.g., "Prevalence of tuberculosis in children in a rural community of South India: a 5-year epidemiological study" and the temporal relation of an intervention, e.g., "Long-term benefits of 5 years of adjuvant Anastrazole: a 10-year follow-up of a randomized trial in breast cancer." Compound titles also correlate with higher number of citations [11].

(c) Full sentence titles tend to be longer and assert the outcome of the study. For example, "Post radiotherapy dysphagia is an independent risk factor for increased mortality in elderly patients: a prospective observational study".

A longer title is more likely to contain a given search term and is therefore identified more easily. Since most of the journals have a limit on the number words which can be used in a title, they are uncommonly used.

3.6 Running Title

Many journals require a short title, which should not exceed 60 characters (including spaces). This is the running title/short title/running head which is an abbreviated form of the main title. This title is usually displayed at the top of each page of the article or left-hand text pages.

It serves to guide readers while scanning through a journal or toggling between multiple papers. The running title can include abbreviations even if the main title cannot. Articles (a, an, the) may be omitted to decrease the number of characters, and complicated words should be minimized. However, if the main title itself is brief, it can serve as a running head as well.

Being catchy is not important for a running title; instead, clarity and precision are important. The maximum length is often set by the publisher; for example, American Psychological Association [APA] style sets the maximum length of the running head to 50 characters, while American Physiological Society [APS] style allows 55 characters. In general, most of the journals recommend that the running title generally does not exceed 50–60 characters.

Title – "Prevalence of hookworm infestation among school-going children in rural North India" (11 words, 86 characters with spaces)

Running title – "Hookworm infestation among school-going children in rural India" (8 words, 59 characters with spaces)

3.7 Title Page

Title page is the first page of the manuscript which contains general information about the article and the authors. A title page includes the following components:

- 1. Title
- 2. Abbreviated or running title
- 3. Author names and affiliations and order of authorship

Full and accurate names of all the authors, each author's highest academic designation, department, and institution should be provided. If the name of a research group is included, then there must be at least one individual author in addition to the group, and the group name must be mentioned in full.

Guidelines for authorship ("who is an author?") can be accessed from the ICMJE website which has recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals [1]. The corresponding author must be highlighted with his/her e-mail, fax no., mailing address, and telephone no. The corresponding author is the one responsible for responding to a reader's queries on the work published in the article. The submitting author's e-mail, fax no., mailing address, and telephone no. should also be included. Only the corresponding author has the right to withdraw, correct, or make changes to the manuscript.

- 4. Number of pages of the manuscript
- 5. No. of figures, tables, multimedia, or 3D models

This enables the editorial staff to confirm that all figures and tables have been included in the manuscript and that it fits in within the space limits of the journal.

- 6. No. of references
- 7. No. of words in abstract, main text, and references

This allows editors and reviewers to assess if the length of the article is warranted and if it fits in with the journal's word limits.

8. Conflict of interest

Most of the journals have a conflict of interest declaration form. Despite this, editors will sometimes require a conflict of interest declaration on the title page. If there are no conflicts, the usual wording is "the authors declare no competing financial interests." Any source of funding, honorarium received, or post held by any of the authors which could pose a possible conflict of interest should be mentioned.

9. Sources of support

This includes funds, drugs, equipment, or other support that facilitated the work described in the paper. All the sources of support should be stated on the title page.

10. Acknowledgments

This includes all funding sources and other technical or intellectual assistance that does not warrant authorship. Acknowledged individuals should be informed prior to submitting the manuscript.

11. Disclaimer

A disclaimer is a statement that disclaims responsibility. It specifies the scope of rights and obligations of all the authors of a particular paper. An example of a disclaimer is that the views expressed in the paper are the author's own and not the views of the institution or the funding agency.

3.8 Covering Letter

Many authors question the relevance of writing a covering letter when the abstract and title page can convey all the essential information about the article and its authors. The covering letter is a small but vital document which serves to create an important first impression and therefore should be tailored to the interests of the individual editor. The role of an editor is to publish novel work which not only lies within the scope of the journal but also captures the interest of the readers. The goal of a covering letter is to convey to the editor how the manuscript meets these criteria.

Every covering letter should contain the following elements and follow certain guidelines enlisted below [12, 13]:

- 1. If the journal requires paper submission, preferably use letterhead paper. Electronic submissions should be formal and include the full name, designation, and contact information of the submitting author in the signature.
- 2. The letter should preferably be addressed to the editor, and in the first paragraph, he/she should be requested to consider the article for publication.
- 3. The length of the cover letter should be restricted to one page which translates into three to five paragraphs. Benson and Silver recommend stating only two or three points about the article in the covering letter [14].
- 4. In the first paragraph the author should provide the title of his/her paper with a request to consider the article for publication.

- 5. It should be emphasized that the manuscript is not being considered for publication elsewhere.
- 6. The next paragraph should cover the main idea of the article with background information to show its relevance. The methodology and the core argument which makes it necessary for the research to be disseminated widely to the readers should be highlighted.
- 7. In the subsequent paragraphs, a frank discussion of potential conflicts of interest and ethical issues can be discussed. This will help to assure the editor that your work complies with the ethical guidelines.
- 8. In the final paragraph, the authors should thank the editor for considering the manuscript for publication.

3.9 Attributes of a Good Title, Running Title, and Covering Letter

- A good title is simple, brief, and captivating.
- It informs the reader and the editor precisely about the contents of the article.
- It contains pertinent keywords which are used for indexing.
- It does not contain abbreviations, unnecessary technical jargon, and numerical parameters.
- A good running title is accurate and contains relevant keywords used for indexing.
- A good covering letter captures the editor's attention by focusing on the strengths of the research.
- It highlights the important aspects of the research which will be exciting for the readers.
- A good covering letter avoids irrelevant and distracting details and avoids repetition.

3.10 Conclusions

Scientific writing should be kept simple. While writing a scientific article, you should recall more than once Einstein's famous quote "If you can't explain it simply, you don't understand it well enough."

Most often, maximum time and effort are spent on writing the main text of the article with little thought and effort spared for writing other parts of a research, like the title, running title, title page, and covering letter. The editor spends a relatively short time for reviewing the relevance of your work. Giving due time and consideration for these three vital parts of a research holds the key to publication success. Hence every effort must be spared to create these critical parts of the document.

Case Scenario

You have conducted a randomized controlled trial comparing home-cooked ragi versus Horlicks in assessing the weight gain of children. Write an appropriate title, running title, title page, and covering letter.

References

- 1. ICMJE | Home [Internet] [cited 2016 Aug 30]. Available from: http://www.icmje.org/
- Chipperfield L, Citrome L, Clark J, David FS, Enck R, Evangelista M, et al. Authors' submission toolkit: a practical guide to getting your research published. Curr Med Res Opin. 2010;26(8):1967–82.
- 3. Soler V. Writing titles in science: an exploratory study. Engl Specif Purp. 2007;26(1):90–102.
- 4. Haggan M. Research paper titles in literature, linguistics and science: dimensions of attraction. J Pragmat. 2004;36(2):293–317.
- Publication Manual of the American Psychological Association, Sixth Edition [Internet]. http://www.apastyle.org [cited 2016 Aug 30]. Available from: http://www.apastyle.org/manual/index.aspx
- 6. How to write and publish a scientific paper: Robert A. Day: 9780313391972 [Internet] [cited 2016 Aug 30]. Available from: https://www.bookdepository.com/ How-Write-Publish-Scientific-Paper-Robert-Day/9780313391972
- How to choose the most suitable title for a research paper [Internet] [cited 2016 Aug 30]. Available from: http://www.biodieseluniversity.org/how-to-choose-the-most-suitable-title-fora-research-paper.jsp
- 24th M, communication 2012lAcademic, Publishing A, Impact, Comments KT. Titles are the hardest thing: How can we make them more effective? [Internet]. Impact of Social Sciences. 2012 [cited 2016 Aug 30]. Available from: http://blogs.lse.ac.uk/impactofsocialsciences/2012/05/24/ titles-are-hardest-more-effective/
- 9. Jamali HR, Nikzad M. Article title type and its relation with the number of downloads and citations. Scientometrics. 2011 19;88(2):653–61.
- 10. Kumar MJ. Editorial commentary. IETE Tech Rev. 2013 1;30(5):361-3.
- Jacques TS, Sebire NJ. The impact of article titles on citation hits: an analysis of general and specialist medical journals. JRSM Short Rep [Internet]. 2010 Jun 30 [cited 2016 Aug 30];1(1). Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2984326/
- 50 ways to write a (cover) letter: The Sceptical Chymist [Internet] [cited 2016 Aug 30]. Available from: http://blogs.nature.com/thescepticalchymist/2007/04/50_ways_to_write_a_ cover_lette.html
- 13. Author: Ben Mudrak | AJE | American Journal Experts [Internet] [cited 2016 Aug 30]. Available from: http://www.aje.com/en/arc/authors/ben-mudrak/
- 9780226043135: What editors want: an author's guide to scientific journal publishing (Chicago Guides to Writing, Editing, and Publishing) – AbeBooks - Benson, Philippa J.; Silver, Susan C.: 0226043134 [Internet] [cited 2016 Aug 30]. Available from: http://www.abebooks.com/14/ What-Editors-Want-Authors-Guide-0226043134/plp