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EDITORIAL
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How to Prepare Our Research for Publication in Medical Journals?

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Science is the most important jewel in the hands of humanity to advance and develop life towards the future. This value has been with humanity for centuries, using it in progress and in the struggle for good. The bright future of humanity continues to take shape in the hands and productions of philosophers and scientists who develop science. Scientists extend the hand of humanity to the future with their productions and researches. Scientists are not content with what they learn, they believe in the power of knowledge, empowering and liberating the person. Scientists all over the world are evaluated not for their talent, intelligence and sympathy, but for their production. The scientist owes no debt to anyone. Developed, humanized, cultured and transformed man owes only humanity. For this reason, every production should have a humanistic meaning. After completing the scientific data production, the most important step is to convert the produced data into a manuscript and to publish this work in an effective medical journal. In this editorial, this process will be tried to be summarized in detail.[1,2]

The main purpose of implementing an effective medical study is possible by identifying the problem in life and testing the solution of this problem in life. The most important points to be observed in medical studies are factuality, internal and external consistency, being criticisable, being generalized, predictability, social necessity and belief in the utopia that will eventually occur. Observing these points at the draft stage constitutes the main points of an effective study.[1-5]

DRAFTING AND CONDUCTING SCIENTIFIC RESEARCH

The most important stage of a scientific research is the preparation of the draft by considering the scientific foundations. The stages here can be summarized in the following order. In the first place, a scientific question arising from life is asked. After that, preliminary research on the subject should be done and the relevant medical bibliography should be scanned. A philosopher summed it up with the words: "If you want to research and write about a subject, you must read all the articles on that subject". After that, hypotheses and predictions about the study are determined, the necessary financial resources are found, permissions are obtained, and the experiments related to the study are started. Finally, the data related to the study are collected, then the data obtained are evaluated, an effective scientific conclusion is reached, and the study is presented to the service of society and humanity by demonstrating the validity of this result in life.[1-5]

Above all, a medical study should be original research that has never been done before. What is important in an original study is that those who increase quality and effectiveness should seek the truth with evidence, be unbiased and neutral.

While the medical study is being designed, the scientist should constantly ask questions such as whether the idea or question that comes to mind and is tested is valuable and applicable, whether enough time has been allocated to put it forward, whether this study or a similar one has been done before, and what kind of result is expected to be achieved. In the research process, the scientist should also avoid the insufficient number of subjects, the absence or inconsistency of the control group, misinterpretation and the use of incorrect

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statistical methods. All these situations can only be prevented by the peer-review process.[1-7]

EVALUATION OF THE OBTAINED DATA

The researcher and his/her team should know how to approach the observed results, not the expected ones, as objectively as possible. He/she should also use in his/her research any counter-thoughts that would disprove his/her own bias. Data, records and other documents obtained from the control and research groups should be well maintained and stored (at least for 5 years). In psychological, psychiatric and some educational researches, existing information about the individual must be hidden very well. However, information on to whom they belong should be kept in a secret place as a list.[3,7]

All information should be analyzed in the research, and this analysis should be done with the most appropriate statistical methods. Statistical methods should be able to give the most accurate result, statistics should not be falsified in line with the logic of "bias". The researcher should not drown under statistical data, underlying facts and information should be captured. In the study, the data contrary to the assumption should not be kept and changed, they should be carefully evaluated in the sections of results and comments, and they should be given as unchanged when the study becomes an article.[7]

WHAT IS A MEDICAL STUDY AND HOW SHOULD IT BE WRITTEN?

If a medical scientific study is concluded, written and published based on sufficient observations and experiments within the framework of a predicted hypothesis, it is called medical scientific writing. A long and ornate presentation format of a medical manuscript and the existence of a reliable book or study on which the study is based does not ensure that it has the standard scientific quality. When writing a scientific article, especially your narration and sentences should be simple. For this purpose, the scientist should try to use short sentences and avoid abbreviations. Care should be taken not to use idioms and passive sentences in the manuscript. In addition, it should always be considered that a medical manuscript is not a literary work.[3-5]

A medical manuscript consists of title, abstract, introduction, material-methods, results and discussion (TA-IMRAD). Below, the features that should be included in these sections will be given with hints.[3-5]

Title is the most important part of a manuscript. An effective title is a good start for the manuscript. It should be short, clear and descriptive. Abbreviated forms of words, chemical formulas and trade names should not be used. Only internationally accepted abbreviations such as DNA, BCG, and AIDS can be used.

Abstract is one of the most read parts of the study. One or more sentences should be written for each of the main parts of the article (introduction, material-methods, results, discussion and conclusion). This part should be written after the article and the past tense should be used. A well-prepared abstract helps the reader quickly and accurately grasp the given information and work. The abstract should be written as a single paragraph and contain 200-300 words, and references and abbreviations should not be used.

There should be a short basic information sentence describing the subject and it should cover what has been done and clearly indicate the method and the results obtained, the conclusion reached as a result of the study.

In the manuscript, which consists of four main sections, the introduction section answers the question of which problem has been examined, the material-methods section answers the question of how the problem has been examined, the results section answers the question of what have been found, and the discussion section answers the question of what the obtained data mean.[3]

The Introduction section is the part that integrates with the title, explains only the purpose, does not go into details, tells the essence of the subject and uses important resources. Most of the introduction section should be written in the present tense. Classically known information should not be repeated and should be kept short, taking care not to write too much information. The introduction section consists of 3 main paragraphs. Answers to the questions of "what do we know?", "what do we not know?", and "what do we want to know?" are sought in the first, second, and third paragraphs, respectively.

The material-methods section should be written in the past tense and its details should be explained. The place and time of the study should be stated and the clinical or laboratory methods used should be clearly written. The person reading the study should be able to repeat the same experiment and procedures without interruption. The names of the devices used should be specified with both commercial and generic names. How the patients included in the study have been selected and how the data have been evaluated should be explained in detail. The random selection method of the cases included in the study should be explained. Ethics committee approval and, if requested, "informed consent" record should be included in this section. Statistical methods used in the study should be stated in this section. Results are not included in this section. This mistake is made frequently.

The results section is the most important part of an article for the reader. This section should be short and free of unnecessary words. It is useful to explain in main sub-headings. It is convenient to give them in tables for easy understanding. No comments should be made about the data. Findings given in tables should not be repeated in the text and statistical support should be given to the summarized materials and methods in the text.

Tables should be numbered according to the order in the text and an explanatory title should be written above.

The discussion section tries to explain what the findings of the study mean. This section should begin with the most important finding or result, which is compared and discussed with existing sources, and indicate whether the presented findings

could be valuable for future studies. Their associations or differences with similar results should be emphasized. If any new assumption is made on the results obtained, this should be clearly stated. The conclusion section should include the answer inferred from the data obtained. At the end of the discussion, the findings and interpretation should be expressed, the contribution of your question to the available information should be emphasized without being overly assertive, and the conclusions should be generalized. In short, in the discussion section, attention should be paid to the good interpretation/defense relationship, applications/suggestions/speculations should be carefully examined, and expectations and the need for additional studies should be stated. In this section, random findings and ideas should be skipped; repetition of the abstract (status of the problem or result) should be avoided; what has been wrong in the research should be stated; and if necessary, self-criticism should be made.[3-5]

In the selection of references, basic and current references especially related to the subject should be selected. Unless otherwise specified by the editorial board, references should be numbered in the order they appear in the text. The newness of references is important, not the number of them. This point is not in question in classical sources. References are written as requested by the journal. The most concrete evidence of an article being laundered is that it was used as a source in another research, that is, it was cited.[3-7]

In conclusion, with medical research carried out with an unfailing adherence to universal scientific and ethical rules, humanity's efforts to reach the truth and find the right information for centuries will continue with increasing momentum, and perhaps the humanization process, not the extinction of nature, will be completed.

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