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Letter to Editor

The Importance of Meta-Analysis in Medical Research

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Dear Editor

Conclusions about the efficiency of studies or the utility of a theory cannot be based on the outcomes of an individual research, because outcomes typically differ from one research to the next. A tool is required to integrate results across investigations.[1-3]

Narrative reviews have been utilized for this objective, but such studies by different specialists can come to different decisions, and this task becomes impossibly complicated when more than a few studies are included. Meta-analysis merges the outcomes of multiple studies by applying statistical analysis to data, and it can be worked with smaller numbers of studies. Statistics have many applications in medical sciences, such as in meta-analyses.[4] Moreover, to produce an estimation of unknown parameters, meta-analysis has the potential to compare outcomes from various studies and recognize models within their results, causes of controversy among the outcomes, or other interesting associations that may come to light in the results of various studies.[3]

Recently, the publication rate of meta-analysis studies has increased, especially in medical research. When it is impossible to apply statistical analysis to data, a systematic review can be used to make better decisions. Meta-analyses are regularly essential ingredients of a systematic review study.

Many journals may even support researchers in doing systematic reviews and meta-analyses. Meta-analyses also assume establishing roles in other studies. For instance, a study might add a meta-analysis in the literature to integrate prior information and support to set the new research in context. Also, meta-analyses can be used for the preparation of new studies and grant proposals. These studies show the potential advantage of organized research.

Authors' Contributions

All Authors contributed equally to this research.

Conflict of Interest Disclosure

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