

Current form of randomized controlled trials

Sir,

In the last issue of *Annals of Pediatric Cardiology*, you have published a paper explaining the limitations of application of evidence-based medicine (EBM) in medical practice.^[1] We also agree that sometimes the results of randomized controlled trials (RCTs) are misinterpreted and some physicians do not consider the limitations of RCTs as you mentioned in the paper.

But it is necessary to consider that RCTs theoretically are one of the best study types. But only RCTs are clinically valuable that are done well and also their results are interpreted well. For example, as you mentioned the results of study on adults can not be applicable for children or newborns. This is an example for misinterpretation of the study results.

Also as you mentioned there is a lot of big and small mistakes in the methodology of some RCTs. These errors can be seen in all parts of RCTs including inclusion and exclusion criteria, sample size, blinding, operators skills variations, analyzing and reporting the results. Also some examples for it can be found in your editorial.

But the importance and value of RCTs can not be denied because of some errors in conducting them or interpreting their results. There is no doubt that without defining a structured template for reporting trials the limitation of RCTs will increase. In the other words RCTs are designed to reduce the limitations you mentioned in your editorial. Existence of these limitations in RCTs reveals incorrect conduction and interpretation of the results of these studies.

The most important message in your editorial is lack of well-designed RCTs and wrong interpretation of their results. Actually how many well-designed RCTs with enough sample size and without bias can be found in a specific disease which is done on a specific population considering all facts in actual clinical situation we may encounter? Of course, there are few RCTs if nothing. The problem is lack of enough reliable RCTs. Also it should be

considered that interpreting and using RCTs' results need enough experience and it is necessary for all physicians and medical student to acquire these skills before starting to use EBM in clinical situations.^[2,3]

There was a worry that it be concluded from your editorial that you do not agree with RCTs at all. But it should be noted that you think the "current form" of RCTs should be changed.

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10.4103/0974-2069.79636

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