

Raising the bar in research designs and translational value of studies

Research is systemic investigation to proffer solution(s) to problems as well as contributing to generalizable knowledge. There are two buzz words in contemporary research: translation and implementation. Translation involves utilization of research findings to impact on lives of individuals in communities. Implementation, which is defined as putting a plan or system into operation, is not much different. It is important that our research studies are geared to solving health problems in societies and the findings directly relevant in bringing about desired changes, if implemented.

According to the Quality Standards Sub-committee of the American Academy of Neurology, the extent to which our research findings can have impact depends on the study design and the number of individuals studied. By far, the best scientific evidence is derived from well-designed, randomized, controlled clinical trials including meta-analysis and systematic reviews. Better still, if such studies are double-blinded. These form the basis of standards of treatment. The second level is data from well-designed observational studies with concurrent controls either cohort or case-control studies. These can be useful for deriving guidelines. At the third level is evidence from expert opinions, case series, case reports and studies with historical controls. In this category are questionnaire surveys.

Questionnaire studies can provide useful information on knowledge, attitude, practice and perception. They come in handy for needs assessment. They are fast and easy to conduct and are not very expensive. The source, representativeness of the population studied, honesty in completion and depth of information sourcing are very important in influencing medical opinion. The admonition by Sir Josiah Stamp some nine decades ago about data source is very germane. In this issue of the journal, more than 50% of the manuscripts were derived from questionnaire surveys. This was not done by random sampling but through collation of papers as they completed the review process. It is important that these are not stand-alone studies but should lead to the generation of hypotheses to answer the “why” and “how” questions about those studies. The next phase can also include qualitative studies through in-depth interviews to understand the reasons for the various choices or responses. Doing these will raise the bar in the quality of research studies and the necessary extrapolation of the findings for societal benefit. Our research designs need to move to a higher level for translational purposes.

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