

Editorial



Research ethics ensure the veracity of a study

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The primary goal of all studies to demonstrate original and new hypotheses. Research is defined as an activity designed to test a hypothesis and permit conclusions to be drawn, thereby developing or contributing to generalizable knowledge. For this purpose, various research methods are employed, such as prospective randomized controlled trials with a high level of research design, retrospective chart reviews, animal studies and so on. Most studies conducted in medical or dental science involve living beings. In some cases, a direct intervention is performed on humans or animals, but in many cases, research deals with subjects' medical information.

For studies involving direct interventions on subjects, each institution regulates research design and processes according to criteria based on the Declaration of Helsinki (revised in 1975) and the Belmont Report (1979), considering ethical issues related to research and the benefits of the anticipated results. For most prospective studies, researchers design trials following guidelines such as the Consolidation Standards of Reporting Trials, and a proposed study is evaluated by the Institutional Review Board (IRB) to assess human rights issues and conflicts of interest. Research can only be conducted with approval from the IRB. This process allows the public to confirm that the research is ethically free of problems and bolsters the value of the research results.

However, human research does not only include direct interventions. Even if information is not collected directly from patients, some studies use data that can directly or indirectly identify research subjects, and surveys used for social and behavioral research are also classified as human subject studies. Since these studies do not directly harm the subjects, the researcher might consider IRB review to be unnecessary. Nonetheless, although retrospective research on medical information can often be conducted without the consent of the research subjects, since sensitive individual information is exposed in the process of data collection, the researcher must take measures to protect subjects' privacy. In addition, the nature of retrospective research also makes it possible for researchers to select already recorded data according to their intended goals. Even in simple surveys or questionnaires, subjects may belong to a vulnerable group, or their personal information could be revealed. Therefore, in order to conduct a study that includes personally identifiable information, it is necessary for a reliable review organization to evaluate whether the design of the study is justified, whether the subjective judgment of the investigator may be involved, and whether there are any issues of human rights infringement.

IRB evaluates research design in terms of respect for persons, beneficence of results, and the justice or fairness of research. Only studies that clearly demonstrate that the selection of subjects is fair, that human rights are respected (including privacy and information security), and that the researchers do not have conflicts of interest should be published in *Journal of Periodontal & Implant Science*. The IRB approval number can prove this. This is why the International Committee of Medical Journal Editors requires an IRB number for all human studies. Researchers, authors, and reviewers should all understand that the results of sufficiently ethically designed research are far more valuable than the results of research for which ethical doubts may exist.