

How we decide

Each year over three hundred papers are submitted for publication in this journal, of which less than half are accepted. Many good papers are received but only those of the highest standard are selected. The decision process leading to acceptance or rejection is involved and often difficult. It focuses on two principal considerations: the scientific quality of a paper and its appropriateness for the readership of the journal. Papers are sent out to two referees and to a statistical referee when indicated. Frequently, our referees are world authorities in their field, whose detailed appraisal of a paper together with their perspective on its value as a contribution to the literature, shape the outcome of the selection process. In around two-thirds of cases the referees are in broad agreement, but in about one-third their opinions diverge. A further opinion may be sought but in the final stages it is the senior editor's task to make a decision in the light of the referees' comments and his own judgment (which may not agree with either referee).

Very few papers are accepted without revision which probably reflects the meticulousness of the reviewers' reports. Once accepted, papers undergo copy-editing that is more intensive than in many other journals.

It is interesting to note the criticisms that most regularly feature in reviewers' reports. A frequent concern is over-enthusiastic interpretation of the significance of findings resulting in unjustifiable clinical recommendations. Conventionally, recommendations should correspond to the level of a study in the hierarchy of research designs with large randomized-controlled trials carrying the strongest weighting.¹ Recently, this traditional view has been challenged by Concato et al.² and Benson and Hartz³ who conclude that the results of well-designed observational studies do not overestimate the magnitude of treatment effects. However, developmental disability research presents particular difficulties in study design for reasons such as heterogeneity of clinical groups, problems in finding suitable controls, and the rarity of some of the conditions being investigated. Single subject design (where participants act as their own controls) is one approach often used and although such studies are not incorporated into Sackett's method of grading research, they may afford the best available evidence. As Sackett comments, if more rigorous studies are not available we must follow the trail to the next best external evidence and work from there. However, reporting the conclusions of such studies merits a degree of circumspection.¹

Referees are also vigilant in detecting sources of bias. Selection bias (where participants selected for study differ in some systematic way from those not selected) may occur, for example, when there is a high non-response rate, loss to follow-up, or a non-representative sampling frame such as hospital out-patient referrals. Confounding bias (where there are important differences between the groups being compared that are also related to the variable of interest) is also a potential

problem in many studies; research design needs to minimize this by techniques such as matching and randomization and by correcting for it in statistical analysis. In some papers it is impossible to ascertain if a study contains these possible sources of bias as it is unclear how participants were selected, how and by whom the study was conducted, what investigative tools were used, and whether these were reliable and valid. A clear account of methodology is fundamental to the presentation of research findings and is an often neglected area.

On a statistical note, the most frequent comment from reviewers is a plea for inclusion of confidence intervals. Another common concern is absence of a power calculation making interpretation of negative results in small studies questionable.

Having established their scientific credentials, which papers are finally selected for publication? Most journal editors would place topicality as the strongest reason for accepting a paper. For example, a well-conducted study providing new information on a hotly debated issue, such as causal pathways in cerebral palsy, would be in great demand. For the majority of papers, however, the decision is less clear cut and the senior editor has to select a balance of material which reflects the interests of the multidisciplinary audience of the journal. In a recent survey of members of the AACPDM on their preferences for journal items, papers on 'clinical therapy', 'procedure outcomes', 'review articles', and 'medical diagnostic issues' formed a fairly distinct group at the top. The current issue includes some valuable papers in all these categories. This survey also showed that only a quarter of respondents requested more basic science papers, nevertheless, the journal has a clear editorial policy of publishing high quality basic science papers relevant to the field of child neurology.

We receive submissions from all over the world with North America, the UK, and Europe each representing about thirty percent of published papers with the remaining 10% from Australasia, the Middle East, Africa, South America and the Far East. We would encourage future material from the less well-represented sectors. However, the journal receives more good papers than it is able to publish, so the senior editor, helped by the editorial board, has the challenging task of deciding which papers we ultimately publish.

Hilary Hart

References

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2. Concato J, Shah N, Horwitz RI. (2000) Randomised controlled trials, observational studies, and the hierarchy of research designs. *New England Journal of Medicine* **342**: 1887–92.
3. Benson K, Hartz AJ. (2000) A comparison of observational studies and randomized, controlled trials. *New England Journal of Medicine* **342**: 1878–86.