

Correspondance

Over the moon about even numbers

The discovery by K.S. Joseph and Michael Kramer of the misreporting of gestational age for Canadian preterm births in 1972¹ may indicate not only rounding to the nearest lunar month or half month, but also the recognized bias for even versus odd numbers. This bias is a form of digit preference, which has been defined as “a preference for certain numbers that leads to rounding off measurements. Rounding off may be to the nearest whole number, even number, multiple of 5 or 10”² Interested readers will find a catalogue of biases in an article by David Sackett.³

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References

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Show us the evidence

We read the study of physician performance in Alberta¹ with a growing sense of concern. The study appears to provide evidence of the reliability and validity of the approach using self-assessments and assessments by peers and patients. Unfortunately, appearances are deceptive; while the survey contained information that could have been used to assess reliability and validity, none of the analyses reported in the paper were actually relevant to these concerns.

The study obtained ratings from patients and peers. These multiple raters per physician could have been used to assess inter-rater reliability. Regrettably this was not done; instead the authors

computed the Cronbach α statistic, which is simply a measure of the extent to which a rater who rates 1 item high will rate other items high.

Secondly, since all subgroups were presumably assessing aspects of competence, one would expect some correlation between assessments by the physician himself or herself, patients, peers, consultants and co-workers. This is an issue of concurrent validity and could have been addressed by computing the mean score for each physician by each rater type and then correlating these scores. While the correlations may be less than 1, to the extent that there is such a thing as competence, the correlations should be positive and in the mid-range. Again, this informative analysis was not conducted.

It is frustrating to see that critical analyses that could have been done, were not. It is also worrisome that the study, which provides essentially no evidence to substantiate the reliability and validity of the peer assessment method, might be misinterpreted by the casual reader as strong support for the approach.

The peer assessment approach may well be a useful strategy. Certainly the results of other studies provide support for the strategy. Regrettably, the present study provides no evidence to assess the utility of the method.

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Impact of abstracts and short reports

I read with interest the discussion about citation indices in *CMAJ*.^{1,2} It was recently pointed out to me that publishing abstracts is a way to increase the impact factor of a journal. *Gastroenterology* publishes the abstracts of the American Gastroenterology Association meeting each year. These abstracts are often cited but do not affect the denominator in the impact factor calculation. Is there a way that the citation index can capture this kind of information?

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2. Garfield E. Journal impact factor: a brief review [editorial]. *CMAJ* 1999;161(8):979-80.

[Dr. Garfield responds:]

If you add abstracts and if they are included as source items you would dilute the impact factor. If a journal publishes abstracts and they are not included by ISI in the database, then any citations to them would tend to increase the impact factor. In other ISI databases where each source item is linked to its citations (for example, the Journal Performance Indicators database), the effect would not be noticed. I checked the Web of Science [a Web interface for ISI's citation databases] and found that abstracts for *Gastroenterology* are included. From the point of view of

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current dissemination of information this is very important. It does mean that any citations to these abstracts would tend to inflate the impact factor. If you check the ISI's Journal Performance Indicators file you can determine just how much these extra citations affect this journal or any other.

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In the recent editorial on *CMAJ*'s impact factor,¹ what is the basis for the statement that "short reports ... are less likely to be cited"? Brevity by itself is not the problem. Consider Watson and Crick's 1953 paper!² However, the increased number of short reports may lead to a lower average impact. I would think that these short reports would eventually be supplemented by more definitive or complete papers so that long-term impact might be affected, but in the short run you might be surprised at the outcome.

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2. Watson J, Crick F. Molecular structure of nucleic acids. *Nature* 1953;171:737-8.

[The editor-in-chief responds:]

I have no data to support our contention that short reports are less likely to be cited. The Watson and Crick paper is a superb counter-example to our statement. However, looking through the short reports that are now published in the *Lancet* and that we publish, I would guess that they are less likely to have as major or as lasting an effect on the scientific literature as the longer, more complete scientific articles — although some will.

John Hoey

Osler's unusual case

I enjoyed *CMAJ*'s tribute to Sir William Osler in the Oct. 5, 1999 issue, especially Peter Warren's article.¹ He put forth strong arguments that Osler's unusual case, presented on Oct. 15, 1900, was indeed the syndrome described 51 years later by Churg and Strauss.²

Another example of an unusual case reported by Osler is his astute description of mitral valve prolapse 83 years before Barlow's landmark paper on the midsystolic click and late systolic murmur,³ which was subsequently called the Barlow syndrome.⁴ I would like to quote parts of Osler's paper entitled, "On a remarkable heart-murmur, heard at a distance from chest-wall" published in the *Medical Times and Gazette* in October 1880.⁵

"Numerous cases of heart-disease are on record in which a murmur could be heard at some distance from the chest. The following instance is remarkable from the absence of any evidence of serious disease, and from the exceedingly variable nature of the murmur... As she sits upright in the chair the heart-sounds at apex and base loud and clear; no murmur. When she stands, a loud systolic murmur is heard at apex ... it varies a great deal, being loud for three or four beats, and then faint for one or two succeeding ones, due to influence of respiration ... It disappeared quite suddenly, and could not be detected on most careful examination ... on causing her to lean forward and relax the chest the murmur was at once heard, and with greatly increased intensity. It was distinctly audible at a distance of three feet two inches by measurement, and could be heard at any point on the chest and on the top of the head ... On July 13 I saw her again at her home, and failed, after prolonged examination, to hear the murmur ... July 21 ... — When she stood up, the murmur at once became evident, presenting the same character as before described ... August 31 — Saw her again, and failed to hear a murmur in any posture, after a prolonged examination ... The points of interest in this case are,

as stated above, the absence of sign of grave heart-disease, and the extreme variability of the murmur ... It was worthy of note that in three of the five cases of this sort here mentioned the patients were women — two of them weak and anaemic; and the third (the girl under my care) delicately built and nervous, though not anaemic."

Osler, of course, was describing all the characteristic features of mitral valve prolapse — its preponderance in young women, the extreme variability of the murmur depending on the delicate balance between the end-diastolic volume of the left ventricle and the amount of the mitral valve apparatus, and the benign nature of the condition.⁶

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Violence in the health care workplace

I read with interest the article by Christopher Fernandes and colleagues on violence in the emergency department.¹ Violence in the workplace has previously been discussed in *CMAJ*^{2,3} and violence in the health care setting was the subject of another recent report.⁴ On the basis of workers' compensation data, a colleague and I documented significantly increased rates of lost-time claims owing to acts of violence for both male nurses