

# Guest Editorial

## The strange world of research and congresses

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Activity not embedded in reality makes no sense, yet to recognize reality among the many imaginary worlds demands critical awareness. Dentistry becomes reality only in the interaction with the patient. To realize this is hardest of all for the practitioner. His or her task is the most difficult, because special training and talent alone are not sufficient. Successful imparting of "oral health" also requires management abilities and a trained personality. The self-restriction of dental schools to technical training alone is a sign of their lack of realism.

When confronted with the reality of dentistry, the practitioner often feels lost and without help from the alma mater. Once the initial hurdles are overcome, the need for continuing education rears its head. A strange behavior with three fundamental traits, incomprehensible to clinical teachers and researchers, has emerged from this situation: (1) trust in technology, or belief in the primeval philosophy of the cannibals, (2) consumption of newsletters and (3) specialization, or the interest in alternative medicine.

*Cannibals.* Optimized technical equipment certainly improves the potential for high-quality dentistry, yet the belief that in buying the latest and best products the purchaser becomes more qualified is based on a primitive error. Cannibals have eaten their opponents in the belief that this was the way to acquire their strength or beauty.

*Newsletters.* Theoretically, one cannot criticize newsletters that summarize research results or offer practical advice. Newsletters do not, however, provide any continuing education and too many merely exploit the practitioner's urgent need for information. The

too often propagated disinformation at best mirrors the impertinent ignorance of the publishers whose instigation to malpractice through malinformation calls for prosecution.

*Specialization.* Dentists who feel under stress and find no orientation or direction tend to resign. Their escape into highly specialized fields or to alternative medicine often only serves to mask their inability to cope with the realities of their profession. Although specialization is a frequently taken step, it is not realistic because the patient remains indivisible.

On the other hand, practitioners have gradually lost interest in scientific publications and congresses for the following reasons.

### The merry research game

Besides caring for human beings, dentistry has mainly to do with methods and materials. The task of realistic and reasonable research would be to provide these techniques and materials, to improve and optimize them, and to test them clinically. These well-defined duties have, however, long given way to other aims:

*Personal career, reputation of a school, and fund acquisition.* It is world-wide practice to rate persons or institutions according to the number of papers published. However, the publication of a paper is no longer a qualification because of flaws in the peer-review process.

*The cast of reviewers.* For reviewers, usually authorities of national standing, a colleague is a competitor and good publications are a threat. However, nonsense that draws its value entirely from the reputation of its author cannot be refused according to standard practice of return, because reviewers themselves must also continue to publish. Fame may also lead to overestimation of one's own ability and to intolerance. Thus manuscripts describing good and innovative work done by unknown researchers often find little or no echo. Peer review becomes a diplomatic walk on a razor's edge in a battle of prestige waged by personalities and institutions. Relevant and important

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results may simply not be understood or may be suppressed because they do not fit into the narrow-minded world of a reviewer.

*The syndicate of scribblers.* Anyone who has succeeded within the review mafia is ready to build a publication syndicate. Papers can now be published cheaper by the dozen in the peer-reviewed journals. There is no more need to read the papers after seeing the author's name because it is already clear which method or which product is again and again labeled as the best. If the same author's name also decorates the patent literature supporting the product in question one could aptly call him or her a "peddler." When, after these celebrities have proved for the umpteenth time that their invention "seals, adheres, disinfects, or wears perfectly," there is still no independent research to support their claims, the explanation is readily found in the so-called transatlantic or transpacific factor; ie, oddly enough, such materials consistently show different properties when assessed on different sides of the Pacific or the Atlantic.

*Acceptance programs and norms.* Clinicians tend to believe that products that have passed acceptance tests and norms will also fulfill the demands during use. Far from it! The clinical and practical demands of the product are not at all the major aspects of newly created norms. Rather the formulation of the simplest testing procedure becomes the number one priority so that as many laboratories as possible in the world can have a finger in the pie. It is for these reasons that there are so many officially certified dental adhesives that are practically worthless, so many antitartar dentifrices that do not prevent the buildup of calculus, etc.

*The merry-go-round of products, physics, and statistics.* Researchers who are not innovative or original are quite happy on the merry-go-round of dental products. Using laboratory tests, one can endlessly evaluate material properties, make physical observations, frolic in statistics, and finally determine the best product (in the lab) with striking evidence. To compensate for the lack of clinical relevance, statistically significant correlations to in vivo results are calculated, but unfortunately never hold up to reality. Worse still, clinical conclusions are cooked up.

*Sponsoring, product launching, and market vagaries.* Undoubtedly, some papers sponsored and/or written by dentists employed by industry are biased. Launching a product requires the blessing of a person noted in that field. Often marketing people invent nonexistent prod-

uct properties to push their sales. Because such sales pitches are successful, competitors must follow suit and many end up scientifically backing some property that does not even exist. As a result, new waves of over-the-counter or professional products, accompanied by masses of literature promising nonexistent properties, hit the market.

*Gutter press or destructive research.* People who lack their own productive ideas often move into a field called destructive research. Reliable, proven methods or well-tested products are suddenly questioned by newly developed dubious procedures, and untested clinical conclusions are used to project the ghost of malpractice. Such dead ends of research produce a flood of publications that are clinically useless or even fraudulent. It is thus no wonder that clinicians avoid reading them. Such statements also remain worthless when published as research summaries in newsletters.

#### Envy of practitioner courses

Institutes and professional organizations become envious of the well-attended continuing education courses offered by practitioners themselves. Attractive, practice-orientated courses that describe realistic treatment procedures are obviously lacking at official meetings. Would it not be more honest to speak of the IADT or IADC, instead of the IADR, meeting, with *T* and *C* standing for *Travelers* and *Communication*, respectively? Many participants are primarily interested in the traveling and the vacation, with the abstract serving as the ticket. The presentation and discussion are merely unwelcome accompaniments. The International Association of Dental Research General Sessions have become so big that even specialists have difficulty in handling the mass of information in their special field. Factors such as the number of participants, the languages, and the countries involved are of prime importance in both national and international meetings. The end result of many such congresses is a sum of individual presentations that are generally impossible to put into practice. The consensus at consensus conferences normally consists in the fact that all participants talk about the same topic; the result may be the publication of interesting proceedings, but discussion and consensus do not take place.

#### Clinical concepts—the real research goal

Neither the world nor humanity changes. Thus the unreal world of research, ignored by the real world of clini-

cal dentistry, will continue to exist because so many people live and profit by it. Yet anyone in teaching and research who wants to be taken seriously by practitioners must realize that practitioners have an insatiable need for applicable clinical concepts. Dentistry desperately needs people who are able to envisage new clinical concepts based on research and development, work out such concepts *in vitro* and *in vivo*, and present them accessibly to the practitioner. Several measures may be helpful to achieve this goal.

Doctoral theses of candidates for a clinical chair should only be recognized when they deal comprehensively with a problem and have clinical value. Erratically compiled papers should not qualify for PhD status. For these candidates, not only the so-called good papers should be considered, but also those which later proved incorrect and should have been subsequently withdrawn. Such papers ought to be given a strong negative value. In addition, when candidates are being evaluated for a clinical chair, both clinicians' and practitioners' vote should be given significant weight.

Dental schools should be rated according to the number of useful clinical procedures they develop and promote rather than according to the number of papers published.

Clinical projects should be rated much higher than laboratory studies, but the methods used in the evalua-

tion should be more precise. Simple observations with mirror and probe are no longer adequate for a clinical evaluation. Clinical conclusions based on *in vitro* studies should be reviewed extremely critically.

Aimless research, particularly with the trend toward high technology, should be influenced by precise and realistic goals. For example, in developing a restorative concept, the costs of individual crowns or restorations could be restricted to a defined, affordable amount.

The international dental community should sponsor true consensus meetings in which participants read each other's papers and concepts and deliberate for as long as it takes to reach a practical and realistic consensus. The contribution by national associations might be, for example, to provide interpreters. The language barrier is higher than generally imagined and often important information cannot be exchanged because of this barrier.

National and international congresses should give priority to clinicians and researchers accessibly presenting useful and tested clinical concepts.

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NB The author considers himself guilty of the above accusations.