

# THE EDITOR'S CORNER

## Progress and Tradition

This issue of JCO includes the first in a series of articles reporting on our most recent Study of Orthodontic Diagnosis and Treatment Procedures. Prior studies were conducted in 1986, 1990, and 1996. Some interesting trends have appeared over the last 16 years. Most of our findings were what we expected: for example, our demographic data showed a gradual aging of the orthodontic population. Another finding, again agreeing with a popular perception, is that women are increasingly represented in our specialty. The number of practicing women orthodontists has more than doubled over the last 12 years. This figure will undoubtedly continue to go up, since the most recent survey of orthodontic graduate education\* showed that almost half of the current orthodontic graduate students are female. The combination of these two findings leads us to believe that the complexion of our specialty will change dramatically during the first quarter of this century.

The graying of the profession is a trend that was predicted in the 1994 graduate education survey, where it was noted that the average age of orthodontic faculty members had steadily increased since the early 1980s. By the 1998 survey, the average age of orthodontic professors had plummeted. The authors commented, “. . . discussed in the report on the 1994 survey was the ‘graying’ of our full-time and part-time faculty. The numbers presented herein seem to indicate that those who were graying in 1994 are now either dead or retired. The over-all experience level of the orthodontic professoriate has noticeably declined.” The trend in private practice will, inevitably, mirror that seen in academics. The average age of practicing orthodontists can only go up for so long. Eventually, most likely sometime in the next 10 years, the younger members of our specialty will become the majority stakeholders.

What are we to make of the changing face of our profession? It seems reasonable to assume that the trend toward a more technologically oriented practice, com-

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\*Orthodontic graduate education survey, 1983-2000, Am. J. Orthod. 121:2-8, 2002.

mented on so often in these pages, will continue. This is illustrated nicely in the Treatment Study by the marked increase in the use of computerized imaging, tracing, and analysis over the last six years. Fully 65% of all practices now routinely use digital photography, a technology that was too new even to be included in the previous survey. Similarly, digital radiography is now routinely employed by about 8% of practices. This is a considerable number, given the high cost of implementing this technology in a solo practice. The movement toward computer-assisted diagnosis and treatment planning seems inexorable.

The "progressive" movement is also noted in the shifting tides of orthodontic materials. About 75% of all respondents now routinely use photocured bonding cement, a material that was not even considered in the 1986 Study. Another new technology that has caught on big in short order is the use of self-etching primers. These materials, unheard of only five years ago, are now used routinely in almost one-fourth of all practices. The movement toward increasing use of nickel titanium archwires—both the "classic" and thermally activated alloys—continues. The use of more traditional initial archwires such as braided steel and titanium molybdenum alloys is in a steady decline. The overall trend seems to be toward nickel titanium alloys for starting cases and stainless steel for finishing.

Perhaps out of individual bias, I had expected to see an increasing shift toward the use of preprogrammed appliances. I was surprised to see instead that there has been a near doubling in the routine use of standard edgewise appliances over the last six years, bucking the previous trend toward "straightwire" appliances. It seems that this particular finding runs contrary to the gener-

al advance of technology. One would expect practitioners who rely more and more on computers to assist with diagnosis and treatment planning, and who use the most technologically advanced materials such as photocured bonding agents and thermally activated archwires, to rely more heavily on preprogrammed appliances rather than resorting to the nearly 125-year-old technology of edgewise wire bending. What gives?

Some might think that respondents simply misunderstood the meaning of "standard edgewise" and included preprogrammed appliances in their personal definition of that term, but I seriously doubt that particular explanation. Most, if not all, of the orthodontists I know are well aware of the differences between the two appliance philosophies. If this is not simply a misunderstanding on the part of the respondents, or a quirk resulting from a change in the questionnaire, what is it? My guess is that it reflects a growing concern for quality, among both the more senior members of our specialty—the ones who are "graying"—and their younger counterparts who are about to assume majority status. Preprogrammed appliances do a wonderful job of getting us into the ballpark, but for the fine-tuning of both esthetics and occlusion, there is no substitute for wire-bending skills. I would like to think that the development of these skills remains a high priority as our specialty changes.

Future issues of JCO will explore the more subtle findings of the current survey of diagnosis and treatment procedures. We will take a little closer look at specific categories of data and the conclusions to which that data lead us. Stay tuned; there are more surprises to come.

RGK