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The 3 T'S
Technology, Teaching and The next millennium

When I was in dental school (1953 to 1957) our lectures were "sometimes" amplified with color slides. Yes, forty years ago the developing state-of-the-art visual for dental lectures was the color slide. Slide photography was on its way, but considering the cameras, the lens, the light sources and the film it wasn't what it is now!

I bought the first single lens reflex camera that appeared on the market, the Asahi Pentax. This was way back in 1958 on one of my trips to Yokohama, Japan. The view-through lens was a great leap in technology! With it I developed the lecture "Photography in Dentistry" -- given at a dental meeting at Camp Zama, Japan in 1963. I still have the nine pages of notes and the 38 slides which were used in the lecture. Carrying that interest further during specialty training, I conducted a formal research project in photography. The purpose of the project was to investigate the use of oral photographs for forensic purposes (body identification) in the military. The Polaroid Corporation graciously loaned me a Polaroid CU-5 Close-Up Land Camera with all of the film I could use, and I successfully proved that an oral photograph could be substituted for an oral examination and paper charting.

When I returned to the staff of the Naval Dental School in 1969 I was given the task of sorting and cataloguing the hundreds of slides relating to prosthodontics which were stored in its Audio-Visual Department. Most dental schools at that time had initiated audio-visual departments with space devoted to studios, and money spent on slide and title making devices and projection equipment. The Naval Dental School and Georgetown and New York universities all had or do have elaborate departments to carry out visual support functions.

Later in the early 1970's, the staff at the Naval Dental School was given the task of putting all lectures on tape (later compressed for speed) and all slides accompanying the lecture in a timed Carousel projector. A "Learning Center" was set up so that the students could listen and view the lecture material at their own pace. As I recall I left behind about 30 lectures in that mode, some of which are still present in the school's library at Bethesda, Maryland.

The 70's and 80's brought forth tremendous improvements in dental (oral) photography equipment. The icon of multiscreen projection, Jack Preston, took slide teaching to a new level. In one degree or another his example has become the paradigm of the teaching and scientific dental lecture.

We must remember that good attempts were also made in the use of television in teaching. Live demonstrations on television were commonplace in the late 60's and throughout the 70's. "Canned" lectures (taped TV demonstrations) were produced in many schools, with a few cassettes still in existence. These were hot ticket items in their time, but evidently they have outlived their usefulness. Most are now gathering dust in little used audiovisual departments.

Today, the slide lecture continues to be the primary mode of information transfer. It provides flexibility in material, ease in updating, a certain control of timing in delivery, and universal commonalty and simplicity in projection. Too much emphasis on producing the perfect slide, the high expense in graphics and title slide production, and a monotony in presentation have become the disadvantages of the slide lecture.

Sometimes I wonder if we have really made much progress in 40 years? In 2036 are we going to look back over the past 40 years and still find ourselves sitting in darkened rooms looking at slides of our accomplishments? What should we be planning and where should we be directing our energies?

FIRST, as a standard we must institute specifically designed courses at the dental school and specialty training levels which are aimed at photography technology, software use for graphics support and title production, and pedagogy for teaching effectiveness.

SECOND, the use of new teaching tools must be implemented. Most certainly these tools will include the use of computerized interactive lecture sets. Examples and design protocols presently exist: for example this style of teaching is commonly being used at the School of Medicine at New York University.

THIRD, the entire infrastructure of projection technology must be reevaluated and redesigned. Schools, audiovisual departments, and commercial projection firms are presently using the same technology that was commonplace over 30 years ago. Upgrading must begin with the everyday use of direct projection from the computer. This will facilitate the storage and cataloguing of slides in the computer; the elimination of film in the production of graphics and word visuals from the computer; and ease the transition to and from interactive teaching sets from existing lecture materials.

Do these recommendations just happen, or do you make them happen? You do it! -- Store your slides on CDs; use the most updated desktop presentation software; demand projection equipment that moves you into tomorrow's world today. I challenge you to become the Jack Preston of the new millennium !

More on Managed Care:

In discussing Managed Care in my last ProsStars, I really didn't want to get into the nitty-gritty. I still don't, but briefly whether you are a "user" or a "provider" just think about:

•The expensive option called the freedom-of-choice option. Usually with this option you may see a network provider and pay a small fee, or chose an independent out-of-network provider. The company agrees to pay 80% (or some other level) after a deductible ($250 / year or some other level) is satisfied. Great!--except that no matter what the provider's fee is, the company is going to reimburse you only 80% of the *usual and customary fee*--which is established by the company. The usual and customary fees are low--rock bottom. Remember then, you will be paid 80% of the usual and customary fee and you make up the difference to the fee total!

•No matter who suggests a specialist, the referral must come from the primary care provider, and if referred to an in-system specialist the objective of the specialist will be to keep costs down. Further, your primary care provider may be asked by the insurer or decide on his/her own to attempt the judgments a specialist could better make. Your personal choices are curbed and your decisions about your care are overlooked.

•This above "curbing " of referral is driven by network reviews of referrals. If the insurer sees specialist utilization beyond what they deem as standard, they will *withhold* some set percentage of the primary care providers payment, or -- drop the provider from the network entirely.

•Remember *capitation* always lurks in the background. This is the setup that pays the provider an annual fee-per-head, regardless of each patient's use of the system. This drives the good guys out of the system because they won't like trying to make a buck on the capitation amount, or limiting referrals and tests, or practicing under the cloud of restrictions set up by the company. That of course results in leaving the bad guys in the system!

In Summary--Two Things:

1/ I heard a presentation on Managed Care at a recent monthly meeting of the District of Columbia Dental Society. As I said before, these discussions are ever more common. The presenter, an oral surgeon in an insured network wasn't dissatisfied or voicing big concerns. The implication was that "there are ways around the limitations and restrictions." The old--if you don't like the rules, don't play by the rules game. I wasn't impressed, and finally after he talked rudimentary treatment planning at great length, instead of his subject, I gave up on him--even if he was a Penn Man!

2/ If the medical and dental professions are going to be forced, be reluctantly coerced, be regulated by government or whatever to function in a Managed Care environment then the education system for physicians and dentists is out of whack! You don't educate providers to work in one system and then force them into another system. Boeing Company doesn't hire carpenters to build 777s. To paraphrase a Chinese proverb: if you are trying to raise squashes, don't plant tomatoes.

The solution is easy. Turn the education systems over to the insurance companies or the government, and let them educate as they wish. Of course you and I won't want our children and our grandchildren to train and work in such a system. But things change; you and I aren't riding horses along the Oregon Trail either.

Conversely however, the military tried changing the education system recently with the Uniform Services University of the Health Sciences. The military wanted military physicians so the military built a medical school to make them. As a point of interest, after enormous expense, we see this school closing. The military will once again buy their physicians from the civilian market. They must have realized that managing their own training for their own system still didn't give them the product they wanted. More likely what they found was that they didn't like the cost of the product! Well--what turns around--comes around!