

Ruminations

This "Ruminations" had been decided upon without prior knowledge of the topic for the 1985 C.S.H.A. Conference in Toronto. It appears a fitting prelude to the conference, the theme of which relates to the computer era and its impact on our profession.

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MICROCOMPUTERS - MASTER OR SERVANT?

What role does technology play in the development of our profession?

It would seem to be an ever increasing one. There has certainly been an explosion in the number of tools available to us since I trained in the early sixties. At that time the most complicated pieces of equipment to be mastered were the tape recorder (reel to reel of course) and the audiometer. In those days providing an auditory trainer to a child had significant effect on "in seat" behavior, largely because the unit weighed about 4 lbs. and, once placed on the child's desk, he was effectively "tethered" to it by the ear phones.

In the intervening years many changes have occurred. Increasing sophistication and the scope of the equipment available have introduced more effective ways of helping our patients. That is not to say that all equipment automatically leads to "better therapy". As with all treatment strategies, various interventions become popular and fads come and go. However, it is apparent that recent advances in technology have added new dimensions to the strategies we can use. This is particularly true in the area of augmentative communication and assistive devices. With the advent of microcomputer technology we are able to open up many avenues which were previously inaccessible to the severely physically disabled person. These avenues include enhanced communication, educational and recreational opportunities and enhanced environmental control. It is now possible for the "single switch user" to have control over powered mobility, synthesized speech, computer graphics and word processing as well as many environmental aspects of his life. Such independent control has the potential to greatly enhance the quality of life for such individuals, and will be a boon to clients with high level cognitive function. The value of using such technology with lower cognitively functioning persons is just beginning to be explored, and there are potentially several beneficial applications. However, as a profession we must be careful not to

forget the value of less glamorous intervention strategies. We would be wise to remember to take the time to analyse systematically the problems which we wish to address. An attitude of "let's just try it and see" is not acceptable. Such an approach can have detrimental effects on the patient's self image, the family and community's acceptance of our professional role, and may constitute an offence against the public or volunteer purse. It is essential that we be able to explain clearly our rationale for choosing expensive equipment over traditional intervention, since it is certain that we will be called upon more frequently in the future to defend our rationales for the purchase of such equipment.

Advances in technology can also be seen in speech science instrumentation. Parameters such as oral nasal air flow, voicing characteristics and other physiological parameters of communication can be quantified using such instrumentation. The addition of microprocessor based data analysis components has increased significantly the speed with which we can access such information, and thereby use it both diagnostically and therapeutically. It is possible that we may see such instrumentation being used regularly as a form of biofeedback training in the near future.

The applications described above may seem somewhat specialized. Does the "average clinician" in the "average clinic" have a responsibility to become computer-literate? Should every one of us have a personal computer as a standard component of our clinic room?

The answer is a qualified yes provided that the equipment will be used creatively as an adjunct to therapy and diagnostics. There is no doubt that computer assisted instruction can remove much of the drudgery of the endless repetition of drills and tasks such as "subject/verb agreement" or "pronouns" or "wh questions" through the software now available. There is no doubt that the personal computer has opened up the possibility of effectively using language transcript analysis in "real" treatment where previously it was a luxury largely dependent upon graduate student slave labour. There is no doubt that the development of disorder-specific data bases will greatly enhance our ability to investigate treatment effectiveness. The many applications of the personal computer to facilitate numerous facets of clinic administration have been discussed by the business community. The most exciting application is only just being explored - that is the creative use of the microcomputer in tapping new learning avenues for the handicapped and the learning disabled.

Obviously the current economic situation will place constraints upon many employers who might wish to provide microcomputers and other forms of instrumentation to staff. However, as a profession we have a responsibility to make ourselves aware of the ways in which we can use microcomputer technology to our professional advantage; to be ready to incorporate microcomputers and other instrumentation into our professional repertoire when the economy permits.

Having consulted my digital analogue crystal ball, I will predict that the microcomputer will alter the way in which we spend time with our patients, that it will "free" us to engage in many of those activities which we all dream of "if only the time were available". I also predict that the microcomputer will offer us the opportunity to quantify and describe the parameters of communication disorders much more precisely, and quantify and document the effectiveness of intervention.

But this paradise will only come about if we throw away our prejudices about, and our fears of, the microcomputer and incorporate it creatively into our professional identity - it must become our servant and not our master.