DOI: 10.2478/aoj-1977-0004

THE RELEVANCE OF THE FORMAL STUDY OF BEHAVIOUR TO THE PRACTICE OF DENTISTRY

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I would like to present some arguments supporting the concept that behaviour should be studied at a formal level by dentists, whether at graduate or undergraduate level. The central theme is that human behaviour should be part of undergraduate studies by aspiring dentists.

Whether we like it or not psychological concepts are becoming part and parcel of the educational background of the community. These ideas are coming to intrude more and more into considerations of how Dentistry should be practised, by dentist and patient alike. Of course, most of such ideas are second or third hand and tend to be uncritically accepted, a situation which is not good enough for us as a professional body. When recommendations are made to us on materials, drugs, or technical procedures we have a background of funadmental knowledge in these areas sufficient to enable us to evaluate them and separate wheat from chaff. Knowledge and technique in Dentistry have taken great leaps forward following the assumption of responsibility for teaching and research by the profession itself, from the investigation of materials by the Green Brothers in the early 19th century, to the elucidation of mechanisms of caries formation over the last 50 years. It is just as desirable for this situation to exist in relation to psychological or behavioural advice. We need, as individuals, a background of broad familiarity with the area. We need to know, for instance, that there is no broad consensus of opinion among social scientists as to what constitutes Psychology or Social Science or the study of Behaviour.

My own contact with people who learn and people who teach Behavioural Science indicates that their attitudes towards, and misconceptions about, Dentistry are identical with those held by the community at large. This inevitably biases any advice given by such people to our profession. Such bias can be found in most of the psychological references in the Dental Literature over the last 20 years. Most of them are gleaned from clinical psycho-analysis and concern concepts that are empirically untestable. The great mass of experimental data is mostly ignored.

This situation will only be remedied when Behavioural Studies are taught in Dental Schools by dentists themselves, as well as other social scientists. The situation envisaged has affinities with Oral Pathology, Oral Biology and Oral Surgery, as superstructures erected on more general foundations. Dentistry should ideally rest upon multiple foundations of manipulative skill and technique, scientific knowledge in basic areas of materials and biology, and equally animal behaviour. But there is more to it than these general considerations. Let us examine the dentist/patient relationship and see where it leads. Few studies have been done in the area and these at widely differing levels. Martin (1965, 1970) of recent years has conducted two studies at a talk and pencil and paper level which show us that patients don't like Dentistry, and dentists don't like Dentistry. They indicate that both parties to the dentist/patient interaction feel some form of stress or tension. While this sort of thing is a beginning, it is only a beginning, for it barely indicates any direction for future study. The problem is delineated but no testable hypotheses are generated. Fox (1973) conducted a study at an empirical level on the desensitisation of so called dentaphobes. This was a patient-centred study with no consideration given to interaction between dentist and patient. Other writings on the subject are heavily weighted with terms like "agression", "oral fixations", "regressions" and the like.

These terms serve principally to enrich the vocabulary and render impressive statements, but they suffer from a tendency to regard abstractions as things. This gives a false appearance of precision, as these reified concepts are difficult to anchor by operational definitions.

In attempting to avoid such pitfalls, the approach of behaviourism developed in an attempt to confine psychology to observable behaviour only. Organisms here are regarded as black boxes of mystery and the task is to find which knobs to press to obtain desired responses without regard to the internal make up of the organism. It has been popular in psychological circles to dismiss those who wish to elucidate the works inside the black box as mere reductionists and for the physiologically oriented to dismiss the biologically incurious as soft or armchair theorists. In fact, both approaches are complementary. Investigating structure and function without regard for social organisation and behaviour is as sterile an approach as attempting to elucidate the development and organisation of behaviour with no acquaintance with physical or biological realities. Unfortunately, the latter is more frequently attempted.

At all times dentists have been practising psychologists. In fact, in more or less degreee all people are such. Dentists in general seem to be more skilled at behaviour control under stress, simply to be able to manage their patients. This skill varies from dentist to dentist. It is more quickly learned by some and for most, in part at least, is acquired by an informal apprenticeship system from other practitioners. To date the effects of the stresses engendered in this effort are little studied. Effects upon the dentist remain unstudied apart from morbid statistics for so called stress diseases.

The day of such apprentice type learning is almost over. Its passing is not to be regretted, for such a system is closely circumscribed by the interests and aptitudes of the master. In such informal systems, the prejudices and limitations of the teacher are apt to be acquired by the pupil in a process of conscious or unconscious imitation. In industry and commerce the trend, at managerial level at least, is to institute some formal study of human behaviour in place of the old, "pick it up as you go along" system, which we still use. The time is more than ripe for the profession of Dentistry to not only follow suit but to forge ahead in such studies; even to become an important interdisciplinary centre of behavioural studies. The range of stress problems we daily encounter, the skills in handling these that we develop makes Dentistry a discipline in which one cannot be content to borrow experts from other areas and take their teachings and pronouncements as gospel. In many ways our problems lie at and beyond the fringe of past and present behavioural studies, just as the problem of caries lay at and beyond the fringe of biological studies some years ago. In both cases active involvement of dentists in research and teaching of their own profession is needed for progress. In assessing the need for and relative importance of such basic psychological knowledge we must bear in mind that techniques and materials change constantly. Think of the changes we have noticed since our own graduation. But the essential components of the system, patients and dentists, people, do not change quickly. In other words the usefulness and effect of behavioural studies at undergraduate level must persist throughout ones career.

A concept gaining ground of late is that of the dentist as leader of a team. The concept is aimed at extending the effect of professional skills, without lowering standards at the same time. It is tautological to say that a leader must lead, but what is being or has been done, in a formal sense, to give dentists any insight into leadership, or call it managerial skill if you will, to avoid the charismatic appeal of the term leader. Even those of us who have served in the armed forces in charge of teams, sometimes quite large ones, have had little or no formal training in these areas of human management.

This is one more developing area of dental practice which cries out for skill, knowledge and behavioural science.

Finally, there is the neglected role of the dentist as an educator, a teacher. Some of us teach other members of our profession at several levels and with little preparation. Almost all of us at some time should teach patients. These patients are of all ages, sociocultural backgrounds and intellectual abilities, making the task a varied and difficult one. It is a task that would tax the abilities of any trained educator. Yet where is our training for it?

The learning problems of aged denture patients for instance, are very different to those of younger patients being instructed in oral hygiene.

On the one hand, in the aged, learning is affected by impaired muscle control in some cases, or perceptual slowness, or both: the effects of aging are mainly in the areas of input and output—the central processing installation generally remains quite active and logical, but can only use the information it receives. On the other hand, the learning of motor skills in the practise of oral hygiene is affected by other factors.

There is a widespread misconception that to inform is to teach—even that the presentation of material is somehow a process of information. It is often difficult to instill the skills of toothbrushing into our patients, particularly the younger ones. There are two relevant factors, both forms of feedback control. Firstly, the desired movements are initially awkward and difficult to communicate verbally. The solution to this is to grasp the patients hand, with toothbrush, in your own, and guide it while passive. Learning by proprioceptive feedback is more effective in the transmission of motor skill than extensive verbalisation. I have found this to be effective even with children as young as 3 and 4 years old, and with excellent retention over a period of months. Secondly, there is an observable decay in skill over time with many people—their teeth are well cleaned only where they show. The solution to this is visual feedback—to watch oneself in a mirror while performing the tooth cleaning task. Of course, many people do this automatically, but then many don't; their efforts can be improved greatly in this simple way. Even for us to understand that, for many people, the stress of the dental situation impairs their perceptual and learning functions is a step in the right direction.

In concluding I would like to point out that we are the most autonomous of professions. It seems to me that control over our own fate is a desirable thing, but how to keep control? The profession is changing; we are constantly reminded of this; in fact I cannot remember a time when it was without change. Perhaps increased involvement in behavioural studies may result in better recruitment and selection procedures for students and teaching staff, eventually allowing us as a profession to have more control over changes in that social institution we call Dentistry.

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2022