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DOI: 10.2478/aoj-1973-0015



# ORTHODONTIC CARE IN A SOCIALIZED DENTAL HEALTH SERVICE – SEARCHING FOR AN AUSTRALIAN FORMULA

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As more and more children throughout the world are receiving orthodontic treatment, it is necessary to examine the real need for this treatment, and how it can best be given in relation to the socio-economic circumstances of the particular community. One way in which such treatment becomes realistically possible for all children is within a socialized dental health scheme.

Basically, orthodontics is concerned with correction of any deviation in dento-facial morphology and function, which is loosely covered by the term "malocclusion", and which may interfere with the well-being of the affected person, whether it be from a functional, aesthetic, or psychological aspect. However, while "malocclusion" implies that all deviations from "good" or "ideal" occlusion are deserving of treatment, many may be functionally and aesthetically acceptable for the individual, so that what might appear to be handicapping to one patient need not necessarily be so for another.

Orthodontic treatment is different from most other forms of dental treatment, since those people requiring treatment are neither ill, nor in pain, and are often unaware of the nature and relative significance of their conditions. Furthermore, most of them are children not yet able to decide their requirements for themselves. The decision to treat will depend on the degree to which the individual differs from the norm; but the norm is arbitrary and the degree of variation which the individual will accept is very subjective. This places considerable responsibility on the orthodontist as to the need of treatment, and how best it might be carried out. Thus, it may be stated that the criteria for orthodontic treatment have tended to vary considerably and will tend to be affected by the system under which treatment is made available.

The particular system under consideration at the moment is one which might operate within a socialized dental health scheme, on the principle that essential services shall be available to all who need them, largely, or entirely, independent of ability to pay. For this purpose intervention of the State is deemed necessary so that available services may be distributed according to certain priorities determined by the people through their elected representatives. Such a system, what Salzmann (1969) scathingly refers to as "Social Orthodontics", would and does exist, whereby orthodontic treatment is provided under government funding and direction, so controlling the acceptance of patients, diagnosis, and scope and limitations of treatment procedures.

A proper objective of socialized dental health might be defined as the provision of a public health service which encourages increased dental health awareness, maximizes the range of treatment according to available resources, and restrains abuses (sic), while leaving freedom of choice to the individual. How the total objective and its components have been attained, and to what degree of success they have been achieved in the field of orthodontics in presently existing socialized health schemes in Great Britain and elsewhere will be examined, with a view of possibly incorporating some of the beneficial aspects of such models into a similarly state-controlled scheme in Australia.

## Great Britain.

The initial part of this review summarises information provided by the Dental Estimates Board (1972). The National Health Service has been operating in Britain for over twenty years. Under this service orthodontic treatment, along with other dental services, is available free of charge to children and adolescents. The service is divided into three classes. The first is the Hospital and Specialist Service, which aims at providing one full-time consultant orthodontist to each 500,000 of the population, with additional staff, where required, in the grades of senior registrar, registrar and assistant orthodontist. The consultant treats a limited number of the more complex dento-facial deformities himself, supervises the treatment carried out by his assistant, and acts in an advisory capacity to the dental officers of the School Dental Service and to

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practitioners in the General Dental Service. The consultant may be attached to both teaching hospitals and regional hospitals, providing a useful liaison between academic and clinical aspects of orthodontics. Remuneration in the Hospital and Specialist Service is by salary or sessional fee.

The second type of service available is the School Dental Service, which is administered by both Health Department and regional education authorities. In 1970, there were forty full-time orthodontists in this service. A considerable amount of the orthodontic treatment is carried out by non-specialist practitioners under the supervision of the specialist orthodontists in the Health Service. Remuneration is by salary or sessional fee.

The third type of service is the General Dental Service which works on a fee-for-service basis. Orthodontic treatment is carried out by a general practitioner subject to prior approval of the Dental Estimates Board, which also assesses the fee for each case. The practitioner must submit a diagnosis and treatment plan with study models and X-rays. Sometimes the practitioner is required to obtain consultant opinion, or the Board may refer the patient for examination by a dental officer of the Department of Health. Theoretically the fee is payable on satisfactory completion of treatment, as evidenced by follow-up models, but, because of the long-term nature of treatment the Board may authorise an interim instalment.

There are about 10,400 practitioners in the General Dental Service, and it is estimated that half this number include some orthodontic treatment. Of these, five hundred do an appreciable amount, while one hundred limit their practice entirely to orthodontics. Great impetus was given to orthodontics, at the inception of the National Health Service, by its inclusion in the General Dental Service scale of fees. It was realised that the demand for orthodontic care, if it was too freely supplied, was likely to be beyond the capacity of the dental teaching hospitals, the School Dental Service, and the limited number of private practitioners specialising in orthodontics to fulfil.

The number of cases treated by the General Dental Service is rapidly increasing and it is estimated that 78% of orthodontic treatment is delivered by this service. In 1970, more than one child in four, of the orthodontic age-group (all children and adolescents under 21 years) was receiving treatment. These facts demonstrate that the provision of adequate treatment in the National Health Service depends on the general practitioner and not on the consultant or specialist. Therefore, the general practitioner should be receiving adequate training as an undergraduate and after graduation so that, together with the Hospital Service, he can provide the standard of orthodontic care which every child should get. Hooper (1969) believes that this stage of progress is now beginning and should become the pattern of future orthodontics in the National Health Service.

The cost of orthodontic treatment in the General Dental Service for the past few years averaged 2.2% of the total cost of the Service (£1,807,000 in 1970).

Hooper (1969) claims that the National Health Service has not caused a lowering of standards of clinical results, but it is responsible for bringing orthodontics "down to earth", and has "clarified its objectives and made it a useful and indeed essential part of the General Dental Service". He also feels that, as a result of mode of operation of the Service, practitioners are encouraged to find ways of treating difficult cases with relatively simple appliances. Looking to the future, he would like to see fewer treated occlusions relapsing and the continuing use of simple appliances rather than elaborate treatment programmes for the relatively mild malocclusions.

According to Allcorn (1964), although there has been a profound improvement in the British people's dental health, their dental service remains an inadequate and more or less irrational compromise or palliative, arising from the aim to provide comprehensive dentistry for all with vastly inadequate resources. There is dissatisfaction within the profession in Britain and continual complaint about the administration of the dental service, scale of fees and the requirements of prior approval.

Thompson, (1965) complains that Britain is very low in the scale of world opinion, and warns that rapid improvement is necessary, otherwise a downward trend is inevitable. He predicts that the more affluent part of the community will abandon State dentistry for private dentistry, so that the National Health Service may well become labelled in the minds of discerning people as a service for the undiscerning.

Walker (1967) questions the wisdom of establishing a free comprehensive National Health Service, because the range of costs are so escalating as to make the allocation of priorities necessary. Some of the current anxieties could have been foreseen if estimates of demands and costs had been more accurate, and if factors influencing public and professional opinion had been more fully canvassed earlier.

Walker further believes that the future success of any national scheme for socialization of dentistry will depend upon the availability of resources and the various social and political pressures brought to bear on the policy makers.

Two widespread misconceptions about the advent of a nationalized health service are that scarce resources become abundant, and that all

illnesses, and hence the resources to deal with them, are finite. (Cooper, 1971). In fact, the resources of manpower, facilities, etc. are always limited. Illness, on the other hand, is only limited by managing to apply priorities or other forms of compromise, which make it of lesser concern, perhaps.

**The United States of America**

The two main approaches to a socialised service in the U.S.A. are the Medicaid system and the prepayment programmes organized by various insurance companies, or by State authorities. Medicaid is a federally-controlled health insurance programme whose administration, however, is left in the hands of the individual states. Its aim is to provide health benefits, including full dental service, for all "medically indigent" persons regardless of age (Salzmann, 1966). A "means test" is applied according to the individual State's discretion, but the Federal Government imposes restrictions on the means test so that something of a national standard of eligibility operates. July 1975 is the date set for the full implementation of Medicaid in all States.

New York was the first state to introduce the system (Johnston 1969). It provides full medical, dental, hospital and nursing care for a family of six with two wage-earners, a net income of $8,500 per year, and owning a home, car, cash assets up to $4,800, life insurance up to $1,000 per person, and basic personal property. Dental Societies in New York State are trying to have the following points made law: free choice of dentist; no prior authorization of treatment; compensation for services based on usual and customary fees; a more realistic financial eligibility, and representation of the dental profession on all advisory committees. In order to cope with an increasing number of orthodontic patients, a priority system has been devised by Draker (1960) with preference given to disfiguring and handicapping malocclusions and to interceptive orthodontics.

Prepayment programs are run principally by the individual states' dental service corporations in spite of the large number of insurance companies covering orthodontic treatment — twenty-two in 1965 (Editorial). The lack of success of the private insurance companies is due to high premiums, incomplete coverage, the inability of many people to get into a group plan, and opposition from many orthodontists who see the threat of outside control of their speciality. (Editorial, 1965).

A wide variety of programmes is provided by the state dental service corporations, which now employ official state orthodontic societies as consultants on prepayment problems. In New York, the orthodontic society has recommended treatment on a total authorisation, total fee basis, without routine inspection and evaluation of work in progress. The state-supported orthodontic programme in Connecticut is limited to the care of cleft palate and cleft lip patients. Massachusetts supports orthodontic care on a partial payment basis. The California State Service Corporation appears to be the most successful so far. It pays half of the orthodontic fee, though not exceeding $500. One of its most interesting aspects is that it allows the individual orthodontist to charge his own fee, provided he lodges his fee schedule with the Service beforehand. Johnston, 1969).

One other development in the U.S. deserves mention. It is the negotiation of funds for a dental care programme on behalf of union members and their dependants in the aero-space industry (Johnston, 1969). Such a procedure, if extended, could make dental benefits available to millions of low-income families.

**Other Countries**

Of the Scandinavian countries, none of which have adopted fluoridation nationally, Sweden is the only country to provide both corrective and interceptive orthodontics for the permanent dentition within the public dental service subsidized by the State, (Syrrist, 1969). School children are examined once a year, but, since there is a shortage of orthodontists, only the most urgent cases can be treated. On the other hand, a good number of less-complicated cases are corrected by early interception. Owing to the current shortage of manpower and, apparently, problems in controlling dental caries among young children, the overriding concern is in dental conservation which tends to push control of malocclusion into the background.

In Norway (Monsen, 1970) school children (ages 7 to 14 years) receive free dental treatment, but orthodontic costs are paid in part by the parents. The Government will pay a higher percentage of the fee in the case of severe malocclusion, the range of subsidy payment varying between forty and seventy-five percent. The eighteen to twenty-one year old age group is provided with dental insurance in only a few places, but adults receive similar reductions for orthodontics as the children do.

New Zealand has a shortage of orthodontists and training centres (Trevathan, 1967). However, there are two main factors which point to readier development of a state-subsidized orthodontic service there. Firstly, the country has a long history of social legislation; and secondly, the dental auxiliaries and school dental programme tends to reduce the ocurrence of malocclusion because of dental prevention and conservation emphases. This may be just as well because it has been assessed that the average general practitioner spends only 2%, or 45 minutes of his time per week, on orthodontics.

One note may be added concerning Canada. Saskatchewan (Johnston, 1969) introduced a system of comprehensive dental care, with the

exception of orthodontics, for children up to the age of 12 years. It has been necessary to introduce a special tax of $12 per family, and $6 for single persons, in order to sustain the system. This item has been included to give an example of how public money may be "found" for specific earmarking for a dental care program.

**Australia**

In Australia, as well as elsewhere, professional services, such as medicine, dentistry and legal aid, function as publicly-protected monopolies (Lees, 1966). However, the local species of these services are somewhat unique in that they are also "free enterprises", with a minimum of rules of operation or of conditions of supply of their services. Thus "health care" is permitted to operate in "the market place", but a particularly favourable one for the practitioner where demand has always outstripped supply.

Under these circumstances, dental care, and particularly orthodontic care, has only been available to those who can pay the price. The great majority of Australian families, either cannot afford, or prefer not to pay for, private orthodontic care. Most of these are also the people who fail to qualify on means tests for the small amount of publicly subsidized orthodontics, which is available through state instrumentalities such as the dental teaching hospitals and a few specialized dental units handling the treatment of physically handicapped children, such as those with oral clefts. Taxation rebates offer the only means of recouping some of the expenses of dental care, but such rebates do not favour the middle income earners and favour even less the income earners lower down the scale.

There are some small organized social groups, such as Friendly Societies and Hibernians, which offer health insurance, including a nominal payment of a few dollars against orthodontic expenses of families. Other insurance schemes offering support for comprehensive care, with ideas of introducing group subsidies, are now forming with the blessing of the dental profession, but with no plans to cover orthodontic expenses.

**Socializing Orthodontics in Australia:**

(a) **The Manpower requirements**

Anyone would judge the success of a health care programme by testing whether the resources of the programme were able to answer the need. Orthodontic needs have been notoriously difficult to assess quantitatively or qualitatively (Draker, 1960; Salzmann, 1970; Freer and Adkins, 1969). In realising this problem, Godfrey (1963), nevertheless, estimated that from 15 to 20% of children of school age in Australia require specialized orthodontic attention and approximately 50% would benefit from orthodontic services appropriate to general practice. However, there are insufficient demographic projections to relate future orthodontic resources to the community needs. But, by way of comparison, United States figures offer a forbidding picture (Rutter, 1970) which must be roughly applicable to Australian conditions. In 1970, 900,000 people were receiving orthodontic treatment from 6,000 orthodontists. It was estimated that there were 90,000,000 requiring treatment. By the year 2000, assuming zero population growth, a complete dental health service and an estimated ten-fold increase in the trained work-force of orthodontists, the orthodontist-patient ratio would be an impossible 1:1,500. It is clear that the general practitioner would have to take the significant orthodontic role. As British experience has already shown, there must be more and better trained general practitioners, as well as specialists.

Public "wants" or "demands", may not relate well to "needs", certainly not in the dental profession's eyes; no practitioner would accept that **all** malocclusion can be equated with significant functional or psychological impairment. This is merely that same problem of objective assessment of the individual's condition. No matter whether any system of assessment is more-or-less arbitrary, it will be necessary to establish priorities of need in order to provide manageable priorities for treatment which can be handled by the available manpower.

It also seems necessary that resources be conserved further by setting limitations of treatment objectives which is the only reason the British scheme could be said to have "worked". The British experience dictates a more gradual development of a state-subsidized service. A worthwhile feature modelled on Britain would be the appointment of specialists both as consultants and as advanced clinicians. Conservation of the specialist resources would be improved by the introduction of dental auxiliaries and ancillaries.

Whether or not practice of preventive dentistry will reduce the occurrence of those malocclusions which are supposed to be the by-products of dental diseases, this same practice will need to be much more than a lip-service in the community, if orthodontic care is to warrant the public money which may be spent on providing it.

(b) **Financing**

The above discussion underlines the importance of education which in turn is only possible through substantial financial underpinning.

A basic reason for operating the orthodontic system on an order of priorities is that it is aimed to provide relatively better quality care for some needy people, in preference to the all-demanding majority. At least this might be accepted as a professional and socially responsible viewpoint. This is what is behind some of the criticism of the British General Dental Service, but, by the same token, this criticism is underlaid

with a pecuniary bias by those who want to sell their services in an open market.

It does not seem that the present socio-economic climate in Australia has yet warmed up to the idea of a socialized dental health service. But, if the time comes, the Government could obviously be asked to provide most of the funds for a socialized dental scheme involving orthodontics. It is likely that patients or families will have to meet some of the cost, and it would be best if the social service taxation could contribute a greater percentage of the fee as the cost of the service, relating to its relative complexity, rises. This is adapted from the Norwegian System (See above).

The method of paying the clinician should be per item of treatment, taking into account the number of appointments considered necessary. An idea borrowed from the California State Service Corporation (Johnston, 1969) would be to have the individual practitioners lodge their fee schedules with the Government agency administering the service. This would allow orthodontists to charge their own fees and arrange their own treatment timetable, and it places confidence in the work of the profession, unlike the British system. Of course, the government must have some means of gauging the success of treatment, and it must impose a ceiling on orthodontic fees, as part of the economic trend towards a controlled economy of relating wages and fees-for-services to productivity.

The danger that voluntary insurance will inflate the cost of salvaging health is apparent from the medical experience in the U.S.A. It is realised increasingly by the British medical profession, as it should be realized by all health professions, that, although they approve of such insurance, they must be prepared to accept Government supervision of costs and premiums. (Cooper, 1971). Such economic control would seem necessary in order to provide an equitable relationship between the general practitioner's basic orthodontic service of recognition, interception and simple treatment, and the specialist's time-consuming and detailed treatment of the more complex orthodontic problems. (Godfrey, 1971).

One problem present in Australia is the deplorable centralization of health services, so that, for example, orthodontic patients living outside the larger seaboard cities either have no attention, or must pay often considerable travel expenses in going for treatment (Henry, 1965). Decentralization of orthodontic services, specialists as consultants, greater use of country general practitioners, with special area, and postgraduate training subsidies, together with, for some patients, subsidized travel, will also be necessary. (Reading, 1965).

## Conclusion

At present, the problems of providing an equitable, orthodontic service for the Australian Community are in the orthodontists' court as much as anywhere. It is about time that there appear signs of a professional attitude of real social oncern to narrow the gap between orthodontic needs and orthodontic responsibility and care.

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