

Some attitudes towards edentulousness, complete dentures, and cooperation with the dentist

A study of denture patients attending a dental school

Einar Berg, Reidun Ingebretsen and Tom Backer Johnsen

Department of Prosthodontics, Faculty of Dentistry, and Department of Community Psychology and Department of Psychometrics, Faculty of Psychology, University of Bergen, Bergen, Norway

Berg E, Ingebretsen R, Johnsen TB. Some attitudes towards edentulousness, complete dentures, and cooperation with the dentist. A study of denture patients attending a dental school. *Acta Odontol Scand* 1984; 42:333-338. Oslo. ISSN 0001-6357.

Our purpose was to study some patient attitudes related to edentulousness and aspects of the personal relationship between patient and dentist. Seventy-four edentulous patients at a dental school, all experienced denture wearers, were interviewed before the insertion of new complete dentures. Half of them felt bitter and sad about the loss of their teeth. This attitude was found significantly more frequently in women than men. More than 3/4 were quite willing to talk to others about having dentures. Almost as many, however, refused to appear in front of others without their dentures. Nearly 70% seemed to have accepted their dentures as a part of themselves. More than 80% of the patients expressed that satisfaction with new dentures may be influenced by the personal relationship between patient and dentist. A similar proportion expressed that satisfaction with dentures may be influenced by their own cooperation. There seemed to be less agreement about how they should cooperate and also what the responsibilities of the dentist were. None of these patient attitudes or opinions were significantly related to acceptance of new dentures. □ *Interview; patient acceptance of health care; prosthetics; psychology*

Einar Berg, Department of Prosthodontics, Faculty of Dentistry, Årstadveien 17, 5000 Bergen, Norway

When a person suffers a physical disability, a severe psychological reaction may ensue. One possible reaction is anxiety about rejection or avoidance by others who are without such handicaps (1); another is a feeling of grief. Such grief reactions may vary from an initial denial to anger, sadness, depression, and psychosomatic affect (2).

A physical disability like the loss of teeth and the insertion of dentures is a common occurrence. In elderly patients this condition is the rule rather than the exception. Loss of teeth may have personal, social, and symbolic implications for the patients, but it is seemingly less dramatic than, for instance, the loss of a limb. Nevertheless, reactions like those described above have also been observed in connection with the loss of teeth (3, 4). It has been postulated that such adverse reactions towards edentulousness, as well as the individuals' feelings about dentures, are important for the acceptance of

new dentures (5, 6). However, evidence to support these claims does not seem to be available.

The interpersonal relationship between therapist and patient is generally known to be of importance for the success of any treatment. In prosthetic dentistry this seems particularly important. No prosthodontist can successfully treat all patients with complete dentures (7, 8). The success of the treatment is claimed to depend both on the construction of technically adequate dentures and on the active participation of the patient, both during treatment (9, 10) and during the period of adaptation (11-14). If denture patients are to accept their part of the responsibility for a satisfactory result, it is essential that a good personal relationship is established between patient and dentist (6, 15). It is not known to what extent patients are conscious of the importance of such an interpersonal relationship, nor is it

known if their opinions on these matters are significantly related to the degree of acceptance of new dentures. The purpose of this paper was to study these questions.

Materials and methods

Seventy-four edentulous patients with previous complete dentures in both jaws participated in this experiment. These included all the patients of this kind who had new dentures constructed by dental students at the Department of Prosthodontics, Faculty of Dentistry, University of Bergen, in the period September 1977 to May 1978. The patient sample had a mean age of 66.3 years (range, 39–87; SD, 9.4 years).

Before the insertion of the new dentures the patients were given a structured interview. This was based on the results of a pilot study by a clinical psychologist (R. Ingebretsen). Questions were asked that had a

bearing on the patients' feelings regarding edentulousness (Table 1, questions 1, 2, 3, and 4), dentures (Table 1, question 5), the importance of the interpersonal relationship between patient and dentist (Table 2, question 6), and the responsibility of the patient and dentist to ensure a successful result (Table 2, questions 7, 8, and 9). Questions 8 and 9 (Table 2) were open-ended. The other questions had predetermined response categories. The criteria are shown in Tables 1 and 2.

The patients' overall degree of satisfaction with their new dentures was recorded after an initial period of adaptation and necessary correction to the tissue fitting surfaces. This normally took place 2–4 weeks after their insertion. The responses were grouped into the following predetermined categories: very satisfied, fairly satisfied, not quite satisfied, and dissatisfied. All the recordings were performed by the first author (16).

The patients were informed that they

Table 1. Patient feelings about edentulousness and complete dentures

Variables	Categories	n	%
Q.1: People may react differently when their teeth are extracted and dentures inserted. How did you react?	Relief	28	39
	Indifference	8	11
	Bitter, sad	35	49
Q.2: Different people may feel differently with regard to talking to friends and relatives about the fact that they have dentures. How do you feel about this?	Can talk freely about it	56	77
	Can talk to some about it	5	7
	Avoid talking about it	12	16
Q.3: Different people may react differently if they are seen without their dentures. Some say they feel 'undressed' and want no one to see them; others say this is of no consequence. How do you feel about it?	Can be seen without dentures	3	4
	Avoid being seen without dentures	16	22
	Never seen without dentures	54	74
Q.4: Some people can take their dentures out and clean them with other persons present. Others will only do so when they are alone. How do you feel about this?	Others may be present	10	14
	Generally alone	13	18
	Always alone	49	68
Q.5: Some people feel almost as if their dentures are a part of themselves, while others tend to regard them as foreign bodies. How do you feel about this?	Part of myself	49	68
	Undecided	4	6
	Foreign body	19	26

Table 2. Patient feelings about cooperation with dentist

Variable	Categories	n	%
Q.6: Do you believe that patient satisfaction with new dentures may be influenced by the personal relationship between patient and dentist?	Yes	55	80
	Possibly	6	9
	No	8	12
Q.7: Do you believe that patient satisfaction with new dentures may be influenced by the way in which the patient cooperates with the dentist?	Yes	59	84
	Possibly	8	11
	No	3	4
Q.8: What do you think the patient can do to ensure the best possible result with the new dentures?	Active attitude*	31	44
	Passive attitude†	20	28
	Reciprocal communication‡	7	10
	Other answers	4	6
	Do not know	9	13
Q.9: What do you think the dentist should do to ensure the best possible result with the new dentures?***	Professional qualifications§	37	52
	Communication¶	13	18
	Personal qualities	6	8
	Do not know	17	24

* Patients should inform the dentist of their needs and wishes.

† Patients should leave decisions to the dentist—do what they are told.

‡ Both dentist and patient should communicate with one another.

§ The dentist must be accurate, conscientious, take his time.

¶ The dentist must inform the patients, listen to them, ask for their opinions.

|| The dentist should be patient, kind, reassuring.

***Two patients gave two responses. The proportions therefore exceed 100%.

should feel free to refuse to answer any or all of the questions. The patients might also have difficulties in understanding the questions, or they might be unable to make up their minds. The number of observations may therefore be less than the number of patients. In that event the corresponding observations were recorded as missing.

The following statistical techniques were used: univariate descriptive statistics, product moment correlation, and chi square in contingency tables. The analyses of the data were performed with a computer program library (17).

Results

The main results are summarized in Tables 1 and 2. Almost half of the patients expressed that it was a traumatic experience to become edentulous (Table 1, question 1). There was,

however, a highly significant sex difference in this respect. Whereas 63% of the women felt sadness and bitterness about losing their teeth, only 24% of the men shared this opinion (chi square (2) = 13.36; $p < 0.0025$).

Most of the patients seemed to be able to talk fairly freely to their friends and relatives about having dentures (Table 1, question 2). However, there was an almost unanimous reaction against being seen without their dentures (Table 1, question 3). Similarly, the great majority of patients insisted on being alone when cleaning their dentures (Table 1, question 4). The presence of the spouse might be the exception to the rule. Women were somewhat more insistent on being alone than men (chi square (1) = 4.54; $p < 0.05$).

Sixty-eight percent had become so adapted to their old dentures that they tended to regard them as a part of themselves (Table 1, question 5).

The great majority of the patients appeared to recognize that their satisfaction with the new dentures might be influenced both by the personal relationship between themselves and their dentist (Table 2, question 6) and by the way in which they cooperated during treatment (Table 2, question 7). Opinions were divided, however, as to how patients should cooperate. The most frequent attitude (44%) was that it was the patients' responsibility to inform the dentist of their needs and wishes. Others (28%), with a more passive attitude, thought that they should leave all decisions to the dentist and do what they were told (Table 2, question 8).

Half of the patients (52%) expressed that the dentist's professional qualifications were of prime importance for the success of the treatment. Considerably fewer (18%) were primarily concerned with the dentist's ability to communicate with the patients (Table 2, question 9).

The responses to questions 1 to 7 (Tables 1 and 2) did not show any age effects, nor did they show any significant correlations to the degree of general patient satisfaction with new dentures (absolute values of the correlation coefficients ≤ 0.21).

Discussion

Physical appearance is important both for the way others react towards us (18) and for our self-image (19). Because dental appearance is an integral part of the face, it is hardly surprising that nearly half of the present patients felt sad and bitter about the loss of their teeth (Table 1, question 1). Others have reported similar results (20). The fact that women were proportionately nearly three times as likely as men to feel the loss of teeth as a tragedy might be a reflection of the greater social pressures on women to have a youthful and pleasing appearance. However, several factors may have influenced the response to this question. On the one hand, some patients who had their teeth removed because of pain and discomfort would be likely to feel relieved at their

removal. Such a circumstance might tend to reduce the proportion who felt depressed about the loss of their teeth. On the other hand, the opposite tendency might occur in denture wearers who, although initially glad to have their teeth removed because of pain, might later feel sorry about their loss. Retrospective evaluations of this kind have a tendency to be transformed in accordance with the present situation.

The patients were willing to talk about having dentures (Table 1, question 2) but quite unwilling to appear without them (Table 1, questions 3 and 4). Talking about having dentures, however, is an abstraction. This dental state is also so common in the present age group that it probably represents a small threat to the self-image of most patients.

In contrast, the loss of teeth may have dramatic effects on facial appearance and consequently on the self-image. This effect may be accentuated by the reaction of other people towards the facial distortions. Edentulousness is a frequent object for ridicule and scorn. Sometimes even the fear of such adverse reactions may therefore prevent an edentulous person from appearing without dentures.

Furthermore, dental status has been suggested as being important in relation to sex feelings and activities (20). These circumstances may explain the almost unanimous reluctance against being seen without dentures and also indicate the severity of psychological reactions associated with the loss of teeth.

However, these attitudes may vary with the social environment in which the patients live. This is clearly illustrated when comparing the present findings with the results of a recent survey from England and Wales (21), in which the majority of patients (57%) did not mind at all being seen by their family without their dentures.

The great majority of denture wearers adapt themselves to well-fitting complete dentures (6, 15, 16). The fact that two thirds of the present patient sample tended to regard their old and generally badly fitting dentures (16) as a part of themselves (Table 1, question 5) may provide some explanation

as to why overadaptation to such dentures is a fairly common occurrence (22, 23).

The responses to the questions in Table 2 may be biased because they were asked by a dentist. However, the fact that the treatment was not performed by the interviewer would probably tend to reduce this effect. Furthermore, this is the only kind of information readily available in a clinical context. At any rate, the unambiguous results of the responses to questions 6 and 7 (Table 2) appear to indicate clearly that the importance of the interpersonal relationship and cooperation between patient and dentist was understood by the majority of the present patient sample.

In view of this, it might be expected that patients would be requesting or even demanding from their dentist such personal qualities as patience, kindness, a reassuring manner, and so forth. However, excluding those who were unable to answer, only 8% of the present patients demanded such qualities specifically (Table 2, question 9).

It has been suggested that patients tend to regard the dentist as a figure of authority (5, 10). It has also been indicated that the degree of authoritarianism of the dentist might have an effect on acceptance of new dentures (24). It is therefore not to be expected that the average denture patient would demand favorable personal qualities from such a figure of authority, even though they may recognize the need for it.

The apparent willingness to cooperate on the part of the great majority of the denture patients studied here should further encourage dentists in their efforts to communicate with and involve their patients in the prosthodontic treatment. Such efforts may have favorable effects on denture acceptance (9, 10, 25, 26).

The general claims concerning the importance of patient attitudes towards edentulousness and dentures for denture acceptance (5, 6) were not supported, at least with regard to newly inserted dentures. In this context it should be noted that a possible systematic bias in the responses would have no influence on the value of a correlation coefficient (27). Furthermore, general conclusions based on the expressed views of the

present group of patients should be drawn with some degree of caution, since it is not known whether patients attending a dental hospital may differ from 'ordinary' denture patients.

It cannot be precluded that other, similar attitudes may be important for denture acceptance. Carlsson et al. (15) found that the question of whether the patients considered their dentures to be a handicap was significantly related to their total assessment of these dentures. The dentures in their study were from 1 to 4 years old. After such a period of time, the fit and patient experience with the dentures may have deteriorated. It is therefore not possible to say whether this variable would also be an important predictor of patient satisfaction with new dentures.

Acknowledgements.—The valuable advice of dr.odont. Finn Gustavsen is gratefully acknowledged. This paper has been supported in part by A/S Norsk Dental Depots Forskningsfond.

References

1. Neff WS, Weiss SA. Psychological aspects of disability. In: Wolman BE. Handbook of clinical psychology. New York: McGraw Hill Book Co., 1965:802.
2. Lindeman E. Symptomatology and management of acute grief. *Am J Psychiatry* 1944;101:141-8.
3. De Van MM. Physical, biological and psychological factors to be considered in the construction of dentures. *J Am Dent Assoc* 1951;42:290-3.
4. Vinton PV, Grieder A, Cinotti WR. Psychological aspects of removable prosthodontics. In: Cinotti WR, Grieder A, Springob HK, eds. Applied psychology in dentistry. 2nd ed. S Louis: The C.V. Mosby Co., 1972:219.
5. Collett HA, Briggs DL. Some psychosomatic considerations in prosthetic dentistry. *J Prosthet Dent* 1955;5:361-7.
6. Seifert I, Langer A, Michman J. Evaluation of psychologic factors in geriatric denture patients. *J Prosthet Dent* 1962;12:516-23.
7. Koper A. Why dentures fail. *Dent Clin North Am* 1964;8:721-39.
8. Sharry JJ. Complete denture prosthodontics. 2nd ed. New York: McGraw Hill Book Co., 1968:9.
9. Hirsch B, Levin B, Tiber N. Effects of patient involvement and esthetic preference on denture acceptance. *J Prosthet Dent* 1972;28:127-32.
10. Lefer L, Pleasure MA, Rosenthal L. A psychiatric approach to the denture patient. *J Psychosom Res* 1962;6:199-207.
11. Anderson JN, Storer R. Immediate and replace-

- ment dentures. Oxford: Blackwell Scientific Publications, 1966:12.
12. Bell DH. Problems in complete denture treatment. *J Prosthet Dent* 1968;19:550-60.
 13. Bell DH. Prosthodontic failures related to improper patient education and lack of patient acceptance. *Dent Clin North Am* 1972;16:109-18.
 14. Heartwell CM. Syllabus of complete dentures. Philadelphia: Lea & Febiger, 1968:72.
 15. Carlsson GE, Otterland A, Wennström A. Patient factors in appreciation of complete dentures. *J Prosthet Dent* 1967;17:322-8.
 16. Berg E. The influence of some anamnestic, demographic and clinical variables on patient acceptance of new dentures. *Acta Odontol Scand* 1984;42:119-27.
 17. Johnsen TB. Innføring i data analyse med standard programmer. Department of Psychometrics, University of Bergen, Bergen, 1978.
 18. Middelbrook P. Social psychology of modern life. New York: Alfred Knopf, 1974:371-417.
 19. Secord P, Jourard S. The appraisal of body-cathexis: body-cathexis and self. *J Consult Clin Psychol* 1953;17:343-7.
 20. Straus R, Sandifer JC, Hall DS, Haley JV. Behavioral factors and denture status. *J Prosthet Dent* 1977;37:264-73.
 21. Todd JE, Walter AM. Adult dental health. Vol. 1. England and Wales. 1968-1978. London: HMSO, 1980:52.
 22. Grabowski M, Bertram V. Oral health status and need of dental treatment in the elderly Danish population. *Community Dent Oral Epidemiol* 1975;3:108-14.
 23. Norheim PW, Valderhaug J. Distribution and evaluation of complete dentures in a population in Northern Norway. *J Oral Rehabil* 1979;6:257-66.
 24. Hirsch B, Levin B, Tiber N. Effects of dentist authoritarianism on patient evaluation of dentures. *J Prosthet Dent* 1973;30:745-8.
 25. Bolender CL, Swoope CC, Smith DE. The Cornell Medical Index as a prognostic aid for complete denture patients. *J Prosthet Dent* 1969;22:20-9.
 26. Guckes AD, Smith DE, Swoope CC. Counseling and related factors influencing satisfaction with dentures. *J Prosthet Dent* 1978;39:259-67.
 27. Marken KE. Studies of deviation between observers in clinico-odontological recording [Dissertation]. University of Umeå, Umeå Research Library, 1962: 125.

Received for publication 3 November 1983