

# Patient satisfaction following treatment with intravenous sedation

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**Objectives:** We examined aspects of the patient experience and assessed patient satisfaction, after treatment with intravenous sedation in the Department of Oral Surgery, King's College Hospital NHS Foundation Trust. **Methods:** N=100 oral surgery patients completed a self-report questionnaire at the end of their treatment session, which assessed satisfaction with various aspects of their visit. **Results:** The majority of patients rated excellent or very good when thinking about their relationship with the dental team. Most of them strongly agreed or agreed that the dental team were thorough in doing the procedure and gentle when they worked on patients. Patients reported that they were satisfied overall with their visit and felt they were treated by experts. **Conclusion:** High satisfaction levels were observed in main (e.g. the way patients were treated by staff) and more peripheral factors (e.g. accessing the department) to do with patients' treatment under sedation. These findings support current work on predictors of patient satisfaction in health-care settings.

*Key words:* Intravenous sedation, patient satisfaction, oral surgery

## INTRODUCTION

Patient satisfaction with various aspects of the care they receive is important for three reasons. Firstly, patient satisfaction is a desirable goal in its own right. Secondly, it is an important determinant of patients' compliance with advice (Ley, 1988) where patient satisfaction has been shown to influence compliance and, in turn, treatment quality (Zimmerman, 1988). Thirdly, patient satisfaction is increasingly seen as a measure of quality (Newsome and Wright, 1999). For example, the provision of quality dental services was identified in NHS Dentistry: Options for Change (Dept. of Health, 2002) as a priority for the future. The systematic collection of data on patient satisfaction with NHS services is likely to become routine shortly, with patient satisfaction becoming increasingly important in health-care. For instance, Lord Darzis' 'NHS Next Stage Review' final report (Dept. of Health, 2008) recommended making funding for hospitals that treat NHS patients reflect the quality of care that patients receive; so for the first time, patients' own assessments of the success of their treatment and the quality of their experiences will have a direct impact on the way hospitals are funded. It is thus important that patient satisfaction is reliably assessed and that successful procedures for doing so are disseminated widely.

Newsome and Wright (1999a) have identified five generic dimensions of patient satisfaction with dental care: technical competence, interpersonal factors, convenience, costs and facilities. However, a review of patient satisfaction studies in dentistry (Newsome and Wright, 1999b) identified a lack of robust measures of patient satisfaction with dental services; e.g. the two most popular scales, the Dental Satisfaction Questionnaire

(Davies and Ware, 1981) and the Dental Visit Satisfaction Scale (Corah and O'Shea, 1984) each have limitations (Mussard *et al.*, 2007). The Dental Practice Assessment Questionnaire (DPAQ) however, has been demonstrated to have two highly internally consistent scales and to correlate well with global measures of satisfaction with the dentist (Mussard *et al.*, 2007).

King's College Hospital (KCH) Department of Oral Surgery currently treats a high volume of patients each year. Despite its size, very little is known about the levels of patient satisfaction in this department. As a result, and given the importance of patient satisfaction for future funding decisions, we decided to explore aspects of the patient experience and patient satisfaction in an oral surgery setting using reliable and valid methods.

## METHOD

This was a cross-sectional study of patients visiting the KCH Oral Surgery Department over a brief period in May 2009. Eligible patients were those that were in the unit for routine treatment under local anaesthetic supplemented with intravenous sedation with Midazolam. One particular session on a particular day at random was targeted, which was typical of all sessions in the department. This session recruited N=100 people over 19 days. The response rate was 100% and 78% of all questionnaires were completed fully.

We assumed that either the patient or their escort could read and understand English. If there were any queries, the participants were given the option of either leaving the question blank or asking a member of staff. Of the recruited volunteer participants, 66% were females and the average age was in the

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26-45 years category.

The DPAQ was used to assess patient satisfaction. Permission was granted from one of the original authors to modify the DPAQ for use in a hospital setting. The adapted measure had 13 items, covering 8 areas (demographics, access, convenience, facilities, timing, interpersonal factors, competence and satisfaction overall) and was measured on a 6/7-point Likert scale.

Patient recruitment and questionnaire completion occurred post-treatment. The questionnaire was given to patients to complete when they were in a position to go home; that is, they were fully conscious, awake and able to make judgments that were deemed to be coherent enough for them to be discharged. The responses were anonymous and confidential. Ethical approval was not required or sought, as this was a service evaluation using non-invasive methods.

## RESULTS

Data were collated from N=100 questionnaires, 78% of which were fully completed. As no questionnaires had missing data for more than half the questions asked, all were included for

analysis purposes. The low rate of missing data was deemed a strength of the study. We present data here from the questions assessing access, timing, interpersonal factors, competence and satisfaction overall.

The data showed that the vast majority of patients were able to book an appointment when they wanted it and were in a position to travel to KCH without major problems (*Table 1*). The majority (77%) of treatment appointments started on time (*Table 2*). Of the small number of patients who were kept waiting, 3 out of 12 people were given an explanation for the delay. *Table 3* shows data on the patients' perception of the dental team and their interactions with them. The vast majority of patients rated their interactions with the dental team positively. When asked about the specific dental treatment they received, the majority of patients reported positively on that aspect of their experience (*Table 4*).

Finally, when rating their overall experience at the Department of Oral Surgery, patients were overwhelmingly positive with 83% of those surveyed reporting high levels of satisfaction (*Table 5*).

Table 1. Responses to access questions

Questionnaire Item	Yes	%	No %	No Answer%
Were you able to book your appointment at a time that was convenient to you?	92		7	1
Were you able to travel to your appointment easily?	95		5	0
Did you have any problems getting into the building, lifts or toilets?	9		91	0
Did you have any problems getting into/out of the dental chair?	0		96	4

Table 2. Responses to waiting times

	Yes %	No %
Did your appointment start on time?	77	23

These are numbers rather than percentages, in this table and the one below:

	Less than 5 mins	5-15 mins	15-30 mins	More than 30 mins
If you answered "no" approximately how long did you have to wait in the waiting area before you were seen?	1	10	9	3

	Yes	No
If you waited longer than 15 mins, was an explanation given for the delay?	3	9

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Table 3. Responses to attitudinal patient satisfaction question item - Question 11

<b>Thinking about your relationship with dental team, how do you rate the following:</b>	<b>Excellent %</b>	<b>Very Good %</b>	<b>Good %</b>	<b>Fair %</b>	<b>Poor %</b>	<b>Very Poor %</b>	<b>Does not apply %</b>	<b>No answer %</b>
How well did the dental team listen to what you had to say?	48	32	14	2	0	1	2	1
How thoroughly did the dental team ask about your symptoms?	38	36	16	3	2	1	3	1
How well did the dental team explain the cause of your symptoms?	29	36	19	6	3	0	6	1
How much did the dental team involve you in decisions about your	32	35	20	4	1	1	5	2
How well did the dental team put you at ease during your treatment?	46	34	14	2	1	1	1	1
The amount of time the dental team spent with you.	43	32	18	3	0	1	2	1
Confidence and trust in the dental team.	54	26	15	1	0	1	2	1

Table 4. Responses to attitudinal patient satisfaction question item - Question 12

<b>Thinking about the treatment you received, how would you rate the following:</b>	<b>Strongly agree %</b>	<b>Agree %</b>	<b>Uncertain %</b>	<b>Disagree %</b>	<b>Strongly disagree %</b>	<b>Does not apply %</b>	<b>No answer %</b>
The dental team were thorough in doing the procedure	49	44	2	0	1	0	4
The dental team were gentle when they worked on me	56	38	2	2	0	0	2
I was satisfied with what the dental team did	58	35	2	1	1	1	2
The dental team seemed to know what they were doing during the procedure	61	32	1	0	1	0	5

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Table 5. Responses to attitudinal patient satisfaction question item - Question 13

Question 13	Completely satisfied %	Very satisfied %	Fairly satisfied %	Neutral %	Fairly dissatisfied %	Very dissatisfied %	Completely dissatisfied %	No answer %
All things considered, how satisfied are you with the Department of Oral Surgery overall?	45	38	6	6	0	0	2	3

## DISCUSSION

In light of the increasing emphasis being placed on patient satisfaction as an influencing factor on funding decisions, this study examined patient satisfaction levels at one large hospital department of oral surgery. Our findings were encouraging; the majority of patients were highly satisfied. They did not have access problems and they were able to book appointments that were convenient to them. Appointments largely started on time and results were positive in terms of the answers given to attitudinal questions looking at interpersonal factors and competence.

The high level of satisfaction with various aspects of the treatment received, can be related to the five issues identified by Newsome and Wright which have been proposed to affect patient satisfaction (Newsome and Wright, 199b):

1. Technical competence of the dentist. All patients were treated by members of staff, rather than students. It is suggested that this could have had a bearing on patients in terms of confidence and trust in the operator. When asked about confidence and trust in the dental team, 95% of patients responded with either, excellent, very good or good in this questionnaire item.
2. Interpersonal factors. This was evaluated by questions such as: 'the dental team were gentle when they worked on me' where 94% of responses were strongly agree and agree. It would seem plausible to suggest then that the surgeons', nurses' and recovery staff interpersonal skills were such that they elicited positive responses from patients.
3. Convenience. The results of the survey showed that 92% of patients felt they were able to book an appointment that was convenient to them.
4. Costs. All treatment carried out was free to the patient. We are assuming that this could have added to the patients' satisfaction although in future this question should be explicitly asked.
5. Facilities. The department where the treatment was carried out had had a recent refurbishment. Facilities are excellent with modern equipment and cross infection standards in accordance with protocols (Dept. of Health, 2003).

It would appear that good interpersonal skills, perceived high technical competency of the dentist, convenience, costs and facilities are all contributors to high satisfaction. These findings are important as they signpost the factors that influence patient satisfaction in practice. The one major limitation to this work is that patients completed the measure after they had received treatment under a sedative, which, could be argued may have influenced their responses. Future work should seek patient views a day or so after treatment with Midazolam. Additionally, these patients may have had one of a wide range of procedures carried out. These procedures were not recorded for the purpose of the survey. Future studies should record these data so as to examine whether satisfaction levels are moderated by procedure complexity.

## CONCLUSION

This was a small-scale project, which showed that anecdotal reports of high patient satisfaction levels at a department of oral surgery are substantiated. We also showed that brief, reliable and validated self-report instruments can be effective in collecting patient satisfaction data from large numbers of patients, quickly and efficiently.

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