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Perceived oral health needs in psychiatric in-patients: impact of a dedicated dental clinic

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Aims and method We have audited the impact of a dedicated dental clinic on the oral health needs of an inner-city in-patient psychiatric population. A questionnaire assessing patient perception of oral health was undertaken on in-patient wards before opening a dental clinic on the hospital site and 5 months after.

Results The audit suggested improvements in patients' perception of oral health, behaviour directed at oral hygiene and knowledge of accessing services after initiation of a dedicated in-patient dental clinic.

Clinical implications Psychiatric in-patient settings may provide important opportunities for oral health promotion and intervention. This is a neglected component of in-patient care.

Declaration of interest None.

It has long been recognised that mental illness is associated with poor physical health.¹ Oral and dental diseases are common problems for psychiatric patients,² and the Department of Health alerted health professionals that

the oral health of individuals with severe mental illness merits particular attention.³ Poor diet, smoking, lack of exercise, self-neglect, comorbid drug and alcohol use, side-effects of psychotropic medication and lack of medical

intervention all contribute to impairment of oral and physical health.^{4–7}

Cross-sectional surveys of in-patient populations in Denmark and Italy demonstrate the poor oral health of psychiatric patients when compared with the general population, with higher rates of dental caries and poor periodontal health.^{8,9} Those with comorbid drug use can face particularly complex periodontal problems, as demonstrated by studies into cocaine and ecstasy use.^{10,11} Cormac & Jenkins⁶ emphasised the importance of incorporating oral hygiene into routine care and oral health into care plans, whereas Kenkre & Spadigam¹² highlighted the need for community dentistry programmes for psychiatric in-patients. Access to dental care and education in in-patient environments has been advocated by others.¹³ Yet despite the well-recognised needs, development of oral healthcare in the UK for this population has been minimal. For instance, the Department of Health guidelines on in-patient psychiatric care do not mention oral healthcare.¹⁴

The normal full range of dental treatments can be offered within primary care settings,¹⁵ although many do not access this care. Oral health can have an impact upon general health, self-esteem and quality of life. The British Society for Disability and Oral Health have made a number of recommendations for client-centred services.¹⁶ These include targeting development of services for clients with limited access to dental services, providing a dental input into multidisciplinary teams and the provision of oral health education, promotion and advice to clients with mental illness. It has been recommended that a questionnaire, also published in the guidelines, be included in the physical health assessment of all psychiatric patients. This comprises eight questions focused on oral health risks, needs and the provision of care. Ideally, the assessment should take place routinely in primary care, although it is also suitable for use as part of the physical health screen for in-patient and out-patient psychiatric populations.

Method

We devised a questionnaire based on the oral health assessment from the British Society for Disability and Oral Health guidelines (Box 1), with some additional questions on oral hygiene to assess perceived oral health needs. We audited responses to this assessment in an in-patient population in November 2006. The sampling frame consisted of 155 adult in-patients (102 in general acute beds and 53 in rehabilitation and medium secure beds) from a busy inner-city catchment area. There were 101 beds within Lambeth Hospital, where the clinic was based (6 in-patient wards), and 54 beds off site (3 in-patient wards). The questionnaire took 5 minutes to complete with the assistance of an interviewer from the mental health service in the study team. A flashcard was shown at the end of question 5 to assess any dental problems (Box 2). The audit was approved by the local audit committee.

Intervention

In response to the initial audit, funding was agreed from the local primary care trusts for the development of a dental clinic on the Lambeth Hospital site. The clinic opened in

Box 1 Questionnaire

- 1 When did the client last see a dentist?
(Less than 1 year ago/more than a year ago)
- 2 Does the client have a toothbrush/toothpaste?
If not, was the client issued a toothbrush/toothpaste?
How often does the client brush their teeth?
- 3 Does the client have natural teeth?
- 4 Does the client have dentures?
If yes, are the dentures labelled?
If yes, how old are the dentures?
- 5 Does the client have any dental problems? (Show flash card)
- 6 Has the client ever smoked?
- 7 Is the client on medication with oral side-effects?
- 8 Does the client need urgent dental treatment?
- 9 Has the client been able to access dental services if required?

Box 2 Flash card for question 5 of the questionnaire

- Toothache
- Receding gums
- Sensitive tooth/teeth
- Tartar
- Tooth decay
- Fractured tooth/teeth
- Other reason
- Bad breath
- Tooth/teeth loss
- Loose tooth/teeth
- Clicking/grating jaw
- Discoloured teeth
- Bleeding gums

February 2008 and provided weekly emergency assessment and treatment for in-patients. It ran on Friday afternoons and was staffed with one senior dental officer and one senior dental nurse. It provided radiographic facilities and liaison with the wider community service.

Follow-up

The audit was repeated in July 2008, 5 months after the opening of a dedicated dental clinic, to assess the impact of the clinic.

Results

Across the 9 wards in November 2006, 65 out of 155 in-patients agreed to take part (42%). When repeated in July 2008, 51 in-patients agreed to participate (33%). This difference in percentages was not significant ($Z=1.65$, 95% CI -19.8 to 1.7).

Table 1 shows the comparative responses to the questionnaire in 2006 (before opening the clinic) and 2008 (5 months after opening the clinic), with significance tests for the difference between percentages indicating probability, standard error and 95% confidence interval, assuming independent samples.

Table 1 Results of an in-patient questionnaire before and after the dental clinic was opened

Audit result	Pre-clinic, 2006	Post-clinic, 2008	Z (95% CI)
	N=65	N=51	
Last saw a dentist over a year ago	36 (55)	26 (51)	0.47 (− 13.9 to 22.7)
Did not have a toothbrush and/or toothpaste	18 (28)	5 (10)	2.58** (4.3 to 31.5)
Identified dental problems	52 (80)	32 (63)	2.06* (0.8 to 33.7)
Believed they needed urgent dental treatment	26 (40)	17 (33)	0.74 (− 10.9 to 24.3)
Could not identify a dentist to visit	40 (61)	12 (23)	4.49** (21.4 to 54.6)
Smoker	55 (85)	44 (86)	0.25 (− 14.5 to 11.2)
Oral side-effects of psychotropic medication	15 (23)	14 (27)	0.54 (− 20.3 to 11.6)

*P<0.05, **P<0.01.

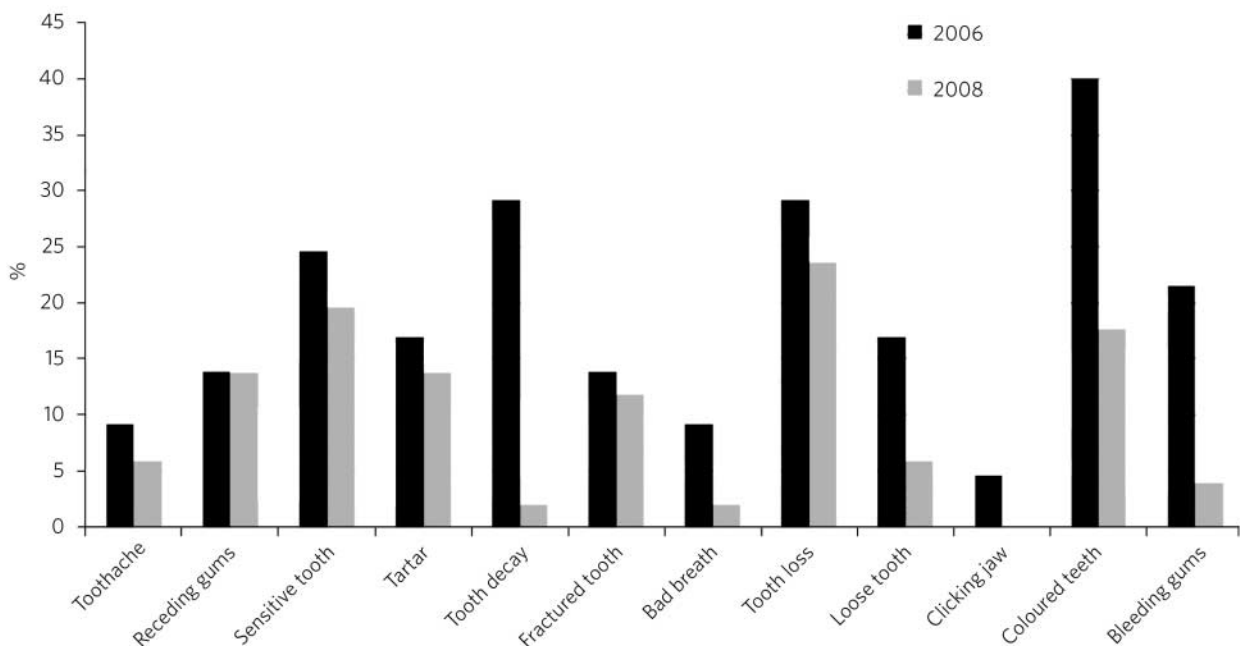


Fig 1 Prevalence of dental complaints before and after service.

The prevalence of comparative self-reported dental problems is shown in Fig. 2. The difference in percentages indicated that perceptions of tooth decay ($Z=4.57$, 95% CI 15.5 to 38.9, $P<0.01$), coloured teeth ($Z=2.76$, 95% CI 6.5 to 38.2, $P<0.01$) and bleeding gums ($Z=3.04$, 95% CI 6.3 to 28.9, $P<0.01$) had all reduced significantly after the clinic. Fig. 3 shows the comparative frequency of self-reported toothbrushing before (2006) and after (2008) the start of the clinic.

Discussion

The development of community services over the past 40 years in the UK has shifted the focus for dental care in severe mental illness from in-patient services to the community. However, our findings confirm the high demand for oral healthcare and uncertainties in accessing this in adult psychiatric in-patient populations. There is a

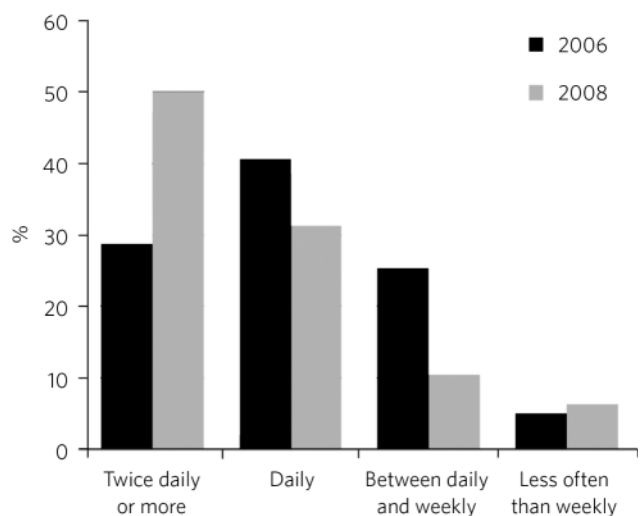


Fig 2 Change in frequency of self-reported toothbrushing.

risk that oral health promotion will not be privileged in the competing responsibilities of mental health professionals. For instance, over a quarter of those we initially interviewed did not have access to a toothbrush.

Unlike other researchers assessing the impact of service reorganisation on the prevalence of periodontal disease among psychiatric populations,¹⁷ we did not examine the teeth of those who volunteered to answer the questionnaire. Furthermore, the screening was undertaken by mental health workers, rather than oral health practitioners.

The audit was devised as a screening tool and reports of dental problems were taken at face value. This may have led to false positive answers but false negatives would also have occurred as other dental problems that patients were not aware of would not have been detected. However, our audit suggests that an improvement in the in-patients' perception of oral health across all measures was observed after introducing an in-patient dental service. Furthermore, this audit suggests that the service had an impact on patient behaviour in terms of knowledge of how to access dental services, oral hygiene and ownership of a toothbrush. In addition to providing emergency dental care and reducing the need for transport and nursing escorts to off-site dental facilities, the clinic sought, via education and advice, to prevent further periodontal disease and related physical health problems. These findings suggest that the clinic had an impact on the wider service in terms of oral health promotion.

The findings of this audit are limited by the small sample size and response rate. This is unsurprising in the light of the high levels of morbidity in in-patient settings where many patients are too ill to deal with questionnaires. However, the audit highlights the importance of basic oral health education and screening in an in-patient psychiatric population, with clear systems for accessing dental services.

We would recommend an assessment of oral health, to include knowledge about accessing dental care, the presence of dental problems and particularly dental pain, to be included as part of the admission process. Currently, assessment of oral health and access to dental services is absent as a standard for the Royal College of Psychiatrists' accreditation for in-patient wards.¹⁸ This might be a good place to start addressing this unmet need.

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