PSYCHIATRIC SERVICES

A partnership evaluation: public mental health and dental services

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Objective: *This study evaluates the partnership between a mental health service and a public dental hospital in providing timely and efficient access to dentistry to patients with a mental illness. In addition, the factors that contributed to the sustainability of the partnership were examined.*

Method: *The partnership was appraised using a survey-based evaluation with 20 patients, 43 community mental health staff and 14 dental staff, and focus groups with mental health and dental staff.*

Results: *The partnership between the services is the key element to the success of improving access to dental services for patients. Overall feedback received from mental health staff highlighted the importance of the partnership and its role in meeting the oral health needs of patients. Generally, patients were satisfied with the treatment they received and valued the dental service. Results highlighted an ongoing problem of poor dietary and lifestyle choices. Dental staff felt that mental health patients were less likely to take care of their teeth and were more likely to cancel appointments. Dental staff also acknowledged frustration with patients with a mental illness not attending appointments or following through with a recommended course of treatment.*

Conclusions: *The partnership with the local dental hospital has created a sustainable way to ensure improved dental health outcomes for patients of mental health services. This partnership has led to increased access to dental services and improved follow-up.*

Key words: *dental care, dental health services, mental disorders, mental health services, partnership.*

Poor oral hygiene and dental health for adults with a chronic mental illness is an ongoing concern for community mental health staff.[1] The impact of oral disease on everyday life is subtle and insidious, and impacts on eating, sleeping and participation in work and social roles.[2] Investigations into public dental services for this population has indicated waiting lists of 5 years or longer,[2] poorer dental health and less access to appropriate dental services when compared to the general population.[3–5]

Since deinstitutionalization from the late 1970s, there has been an increasing need for specialized dental programs for adults with a mental illness living in the community.[1] As a result, community mental health staff are often required to assist in accessing dental care.

Adults with severe and persistent mental illness, particularly those with schizophrenia, are at a high risk of developing advanced dental diseases and complex dental problems.[3] This poor dental health is a result of a myriad of factors, including: limited financial resources;[4,6] difficulty accessing and utilizing dental services;[1] adequate numbers of dentists comfortable in providing care;[4] positive and negative symptoms and their effects on the performance of dental hygiene tasks;[4,5,7–9] lifestyle factors such as smoking;[1,5–8] and the oral side-effects of medication.[1,4–9]

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A partnership between the Mobile Intensive Treatment Team (MITT) of the Princess Alexandra Hospital Mental Health Service and the South Brisbane Dental Hospital (SBDH) in Queensland, Australia, began in January 2005. Two allocated dental appointments per week were set aside for mental health patients living in the SBDH catchment area. Additional appointments were arranged with the Queen Elizabeth II Dental Clinic in June 2008. This partnership ties in with the two key approaches outlined in the Australia National Oral Health Plan 2004–2013: (i) priority given to policies and programs that target special needs groups in the population who are most vulnerable; and (ii) a preventive approach through the integration of dental and other health care.[10]

The aim of the study was to evaluate the partnership between MITT and the SBDH to identify factors that contributed to the sustainability of the partnership.

METHODS

Design

The partnership was appraised using surveys of dental staff, mental health staff and patients accessing the dental service. Focus groups were conducted with mental health and dental staff.

Participants

Forty-three community-based multidisciplinary mental health staff participated in the surveys and focus groups. Twenty adults with a mental illness living in the community who had been referred to the SBDH within the last 2 years participated in the telephone surveys. Five dental staff from the partnership site, the SBDH, and nine from the control site, the Brisbane Dental Hospital (BDH) participated in the surveys. A focus group was conducted at the control site.

Measures

The three surveys used in the evaluation were designed by the research team in consultation with dental staff at both sites and a consumer consultant.

Mental health staff surveys

Surveys consisted of 13 patient-related items, including facilitation of recent dental referrals, perceived confidence, proficiency and barriers in identifying and addressing oral health needs and utilization of the dental service partnership. Staff were also asked to prioritize areas they considered important in recovery planning, including social interaction, stable accommodation, oral health, employment, nutrition, transport, living skills, physical health, medication adherence and symptom management.

Patient surveys

Patient surveys consisted of 20 items designed to gain information regarding teeth status, dental care and oral hygiene, and oral health considerations when making dietary choices and smoking cigarettes. Some demographic information was collected.

Questions were also asked about oral side effects from medications and degree of support by mental health staff in addressing oral health concerns. Questions regarding the dental staff included effectiveness of communication, perceived respect received, value of the visit and motivation towards follow-up appointments.

Dental staff surveys

Dental staff surveys consisted of 12 statements designed to establish if there was a difference in attitude between dental staff from the partnership and the control site regarding assumptions of patients with mental illness.

Statements on all surveys

All participants were presented with four statements designed to establish any general trends in perceptions within and between groups regarding psychiatric medication side effects related to dental health, need for case management support, and priority access for dental services for patients with mental illness.

Procedure

Surveys and focus groups were conducted with mental health staff during team meetings. Focus group questions were aimed to stimulate discussion regarding positive and negative experiences in accessing dental care for patients, attitudes towards the partnership and ideas for improving the partnership and the oral health of patients.

Telephone surveys were conducted with patients after the purpose was comprehensively explained and their informed consent to participate given.

Surveys were conducted with dentists at both sites. Dental staff from the SBDH were approached to participate in a focus group but it was unable to be scheduled in the evaluation timeframe. Although staff were invited to email the principal researcher to comment on their experiences of working with people with a mental illness, none responded. A focus group aimed at stimulating discussion on experiences of working with this population was conducted with the dental staff at the BDH.

RESULTS

Data analysis

Descriptive statistics were used. Statements made during focus groups were reviewed for overall themes.

Demographic profile

Table 1 presents the demographic and psychiatric profile of the patient participants. Participants included nine male and 11 female patients aged 22–63 years, mean age 34.1 years (SD ± 10.5). Seventy percent had a primary diagnosis of schizophrenia, reflecting the profile of patients in mental health service. This table also outlines reported oral care strategies, oral side effects from medication, rates of cigarette smoking (60%), and time since last dental visit.

Mental health staff surveys and focus groups

Surveys completed by mental health staff revealed that oral health is not a recovery planning priority. Only 24.4% rated oral health as a priority, compared to other areas which were rated between 43.9% and 97.5%. This contrasted with 81.4% either agreeing or strongly agreeing that identifying oral health needs was part of their role; 79.1% had referred a patient to the dentist in the last 2 years, with 70.6% of that group utilizing the dental partnerships.

Almost half (48.8%) of the respondents felt proficient in identifying oral health needs of their patients and 76.7% wanted to improve these skills. The main barriers identified in accessing dental treatment were the high cost of dental care and patients' not prioritizing dental care. The majority (86.0%) agreed or strongly agreed that patients were less likely to care for their teeth, and 60.1% agreed or strongly agreed that patients were more likely to cancel appointments. Mental health staff reported ability to comprehend depended more on the patient than on the adequacy of the instructions given.

The focus groups identified a number of factors that negatively impact on patient oral health. These included not revealing dental concerns unless emergency treatment was required, not considering assistance with oral and dental health as part of the mental health staff role, and lack of awareness of free access to public dentistry. Patient lifestyle choices and the impact of negative and positive symptoms on the performance of oral hygiene procedures were also identified.

Mental health staff reported competing clinical priorities, and not asking patients about dental and oral health created barriers to assisting patients meet their oral health needs. All staff could identify patients on their caseload with poor oral health, and agreed that good dental health could improve self esteem and have positive effects on physical and mental health. Mental health staff were generally unaware of the potential oral side effects of psychiatric medications.

Table 1: Demographic and psychiatric profile of patients

Characteristics (n = 20)		***%***
Gender	Male	45
	Female	55
Age	Mean (± SD)	34.1 (± 10.5)
	Range 22–63 years	
Primary psychiatric diagnosis	Schizophrenia	70
	Schizoaffective disorder	15
	Bipolar affective disorder	10
	Schizotypal personality disorder	5
Oral care strategies	Brushing	100
	Flossing	20
	Mouthwash	35
	Other	20
Oral side effects from psychiatricmedication	Yes (Xerostomia)	30
	No	70
Smoking cigarettes	Yes	60
	No	40
	Consider the oral harm	41.7
Last dental visit	< 6 months ago	55
	6–12 months ago	35
	12–18 months ago	10
Follow-up appointments	0 follow-up appointments	40
	1 follow-up appointment	40
	2–3 follow-up appointments	20
	Attendance to follow-up appointments	83.3

Mental health staff reported a number of negative experiences when attending appointments with patients. These included dental staff becoming frustrated with patients experiencing delusions and anxiety; using complex language; overloading patients with information; demonstrating a limited understanding of the patient's cognitive deficits; expecting mental health staff to prompt patients daily regarding oral care; and communicating with mental health staff rather than directly to patients.

Overall, mental health staff valued the partnership and its assistance in meeting the oral health needs of patients. Most agreed that the need to be present during a dental appointment depended on the patient, but their presence could be beneficial in assisting patients to manage anxiety, address poor motivation, and follow instructions. Mental Heath staff noted patients wishing to see a dentist had shorter waiting times after the partnership began.

Patient surveys

The surveys conducted with patients identified that 60% were currently satisfied with the state of their teeth; 20% described their teeth as 'very poor' or 'poor'; and 25% as 'good' or 'very good'. Only half of the patients considered the health of their mouth or teeth when choosing what to eat or drink; 75% reported that the dentist gave them helpful instructions and 86.7% of this group reported that they followed these.

The vast majority (95%) reported that the dentists explained things in an understandable way, and all felt they were treated with respect. All patients agreed it was worthwhile going to the dentist, 95% indicated they would return to the dentist for further treatment, and 83.3% reported that they attended scheduled follow-up appointments. The main reason they reported for not attending follow-up appointments was deterioration in mental state; 95% reported that they felt that their case manager considered their oral health as important as they did, and supported them in visiting the dentist.

The majority of feedback received from patients in regards to the partnership was positive, with most being satisfied with, and appreciative of, the dental service.

Dental staff surveys and focus group

Surveys conducted with dental staff revealed that 92.9% agreed or strongly agreed that people with a mental illness are less likely to take care of their teeth, 50% agreed or strongly agreed that people with mental illness do not appreciate the need to care for their teeth, and 85.7% agreed or strongly agreed that people with a mental illness are more likely to cancel appointments. In response to whether people with a mental illness are more likely take dental advice, 42.9% strongly disagreed or disagreed, and 21.4% agreed. There was a relationship between these responses regarding the statement that people with mental illness are less likely to comprehend instructions, with 42.9% agreeing or strongly agreeing.

All respondents had treated people with a mental illness. When asked whether they enjoyed working with this population, 21.4% disagreed and 28.6% agreed or strongly agreed.

The focus group and surveys with the dental staff at the BDH raised a number of concerns regarding this population including: the oral side effects of medications; high rates of cigarette smoking; and poor dietary choices, particularly soft drink. Staff also acknowledged frustration with patients not attending appointments or completing a course of treatment. Most dental staff commented on the usefulness of having a mental health staff member present during appointments to support the patient to follow through with recommendations and treatment plans.

Common statements presented to all participants

Table 2 shows a comparison of the responses to the four common statements presented to each group and the overall response trend. The sample sizes are too small to show significance. In general, the responses were fairly consistent between groups. Notable variations are that dental staff felt more strongly that it was important to have a case manager or support person present and they felt this would minimize cancelled and missed appointments. When compared to patients, dentists tended to disagree that the risks to teeth from psychiatric medications are greater than the mental health benefits.

DISCUSSION

On the whole, the partnership has been successful in meeting the dental needs of patients through increased accessibility and follow-up, with a majority of mental health staff utilizing the partnership by referring patients. The ongoing problem of poor dietary choices among patients was identified by the surveys with all three groups. Most importantly, patients were satisfied with the treatment they received, both in regards to dental work and dental staff and would re-attend the dental hospital in the future. Patient satisfaction has been shown to play a major role in improving oral health outcomes.

There are a number of potential barriers to inter-service collaboration. These barriers include structural, procedural, professional, and legitimacy issues both within and between services.[11] Such barriers can occur when general medical services are not integrated with psychiatric services. Other issues include poor clarity regarding roles and responsibilities, poor or inconsistent communication and the heavy reliance on the professional relationship between two individuals rather than between services.[11] There are also difficulties related to working with patients who are often late or fail to attend appointments and do not follow through with the recommended course of dental treatment.[1]

Table 2: Comparisons between common 'attitude' statements

	Patients n = 20 M (6 ± SD)†	*Mental health staff n = 43 M (6 ± SD)*	*Dentists n = 14 M (6 ± SD)*	*All responses n = 77 M (6 ± SD)*
Psychiatric medications are harmful to teeth	3.05 (± 0.95)	3.34 (± 0.90)	3.86(± 0.66)	3.35 (± 0.89)
The risks to teeth from psychiatric medications are greater than the mental health benefits	2.8 (± 1.01)	2.07 (± 0.80)	1.71 (± 0.91)	2.19 (± 0.95)
People with mental illness should have priority access to public dental services	3.8 (± 0.89)	3.98 (± 0.71)	3.57(± 0.76)	3.86 (± 0.77)
It is important to have a case manager/support person present when you go to a dental appointment	3.1 (± 1.25)	3.56 (± 0.77)	4.5 (± 0.94)	3.61 (± 1.04)

†Numerical coding for answers: 1, strongly disagree; 2, disagree; 3, neutral, 4, agree; 5, strongly agree.

In order to address the difficulties that might jeopardize the partnership, a number of strategies were implemented. Table 4, adapted in part from Glasby and Lester,[11] summarizes the key strategies used in order to ensure the sustainability of the partnership. These strategies were invaluable in assisting patients to access timely and efficient dental care.

This identification of the key sustainability strategies makes it possible for other services to create similar partnerships. One of the key elements has been the commitment by mental health staff in accompanying and transporting patients to dental appointments, and encouraging them to complete a recommended course of treatment. Allocated dental time for patients has proved to be important. The use of understandable language and the respectful nature of the dental staff was another key element in ensuring patients followed recommendations and attended follow-up appointments.

A literature search identified two similar programs.[1,12] Both programs highlighted the importance of having a robust partnership between services in order to work together to address the concerns of this population. Similarities between these programs and the program evaluated here included set dental appointment times for mental health patients and the use of staff in accompanying consumers to improve attendance. The main difference is that the program evaluated in this paper

Table 3: Key strategies used to promote partnership sustainability

- Ensuring service 'buy in' into the partnership.
- Using and maintaining effective and continuous dialogue.
- Having shared patient centred goals.
- Commitment by mental health staff to minimize 'did not attends' through mental health staff attending dental appointments with patients.
- Mental health staff supported patients during visits to ensure an understanding of the information and instructions provided by the dentist.
- Regular reminders to eligible mental health teams regarding dental appointments.
- Clarifying roles and responsibility of each party, including the patients.
- The development of an internal referral form which categorized patients, thus identifying those who require urgent treatment.
- Mental health staff presence during dental appointments leading to shared education.
- Regular reviews to address problems and issues.

has a relatively smaller number of ongoing issues impeding the partnership.

The surveys and focus groups highlighted the need for dental staff to be given additional education regarding mental illness, including the effects of symptoms and changes in cognition. Dental staff should be informed of the patient's medical history, current medications, current mental state and their ability to participate in and consent to dental treatment.[8] Dental staff do not necessarily require specialized psychiatric skills. Human understanding, patience and interest in the wellbeing of the patient are sufficient.[13] In conjunction, dental staff have a role in educating mental health staff in understanding and identifying oral health concerns, and possibly about the development of preventative dental disease programs.[3]

Future studies should focus on the oral health outcomes achieved and maintained by this population as a result of the partnership. A comparison study of the oral and dental health benefits of the partnership in relation to those patients who did, in contrast with those who did not attend, the dentist would further document the impact of this service. In addition, it would be worthwhile to examine the impact of improved oral health on overall quality of life, as it appears that oral disease poses a significant barrier to self-esteem, employment and self-sufficiency.[14]

The small sample size was drawn from a specialized mental health service working with a defined population. Care needs to be taken in extrapolating to a general population sample of people with a mental illness. Patients interviewed were a convenience sample, rather than a randomly selected group. The effects of improved oral health on systemic health and quality of life were not assessed. It would have been beneficial to conduct a focus group with the dental staff at SBDH.

This evaluation identified strengths which have ensured the longevity of the partnership. In the opinion of the authors, this partnership approach could be applicable to other mental health services in ensuring access to dental services in a population that continues to experience poor physical health and high rates of comorbidity.

CONCLUSIONS

Overall, the partnership between MITT and the SBDH has created a sustainable way to ensure improved dental outcomes for patients of mental health services. This partnership has led to increased access to dental services and greater follow-up, a critical first step towards improving the dental health, and general health in this population.

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DISCLOSURE

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

REFERENCES

1. Chalmers JM, Kingsford Smith D, Carter KD. A multidisciplinary dental program for community-living adults with chronic mental illness. *Scandinavian Special Care in Dentistry* 1998; **18**: 194–201.
2. National Advisory Committee on Oral Heath (Australia). *Australia's National Oral Health Plan 2004-2013: Healthy Mouths, Healthy Lives.* Government of South Australia, on behalf of the Australian Health Ministers' Conference; 2004.
3. Thomas A, Lavrentzou E, Karouzos C, Kontis C. Factors which influence the oral condition of chronic schizophrenia patients. *Special Care in Dentistry* 1992; **16**: 84–86.
4. Friedlander AH, Marder SR. The psychopathology, medical management and dental implications of schizophrenia. *Journal of the American Dental Association* 2002; **133**: 603–610.
5. McCreadie R, Stevens H, Henderson J *et al.* The dental health of people with schizophrenia. *Acta Psychiatrica Scandinavica* 2004; **110**: 306–310.
6. Friedlander AH, Liberman RP. Oral health care for the patient with schizophrenia. *Special Care in Dentistry* 1991; **11**: 179–183.
7. Clark DB. Dental care for the psychiatric patient: chronic schizophrenia. *Journal of the Canadian Dental Association* 1992; **58**: 912–916, 919–920.
8. Clark DB. Dental care for the patient with schizophrenia. *Canadian Journal of Dental Hygiene* 2008; **42**: 17–24.
9. Friedlander AH, Friendlander IK, Marder SR. Bipolar I disorder: psychopathology, medical management and dental implications. *Journal of the American Dental Association* 2002; **133**: 1209–1217.
10. Brennon DS (Australian Research Centre for Population Oral Health, The University of Adelaide). *Oral Health of Adults in the Public Dental Sector.* Dental statistics and research series no. 47. Canberra: Australian Institute of Health and Welfare, 2008.
11. Glasby J, Lester H. Cases for change in mental health: partnership working in mental health services. *Journal of Interprofessional Care* 2004; **18**: 7–16.
12. Dicks JL. Outpatient services for individuals with mental illness: A program description. *Special Care in Dentistry* 1995; **15**: 239–242.
13. King KC. The dental care of the psychiatric patient. *New Zealand Dental Journal* 1998; **94**: 72–82.
14. Hyde S, Satariano WA, Weintraub JA. Welfare dental intervention improves employment and quality of life. *Journal of Dental Research* 2009; **85**: 79–84.