Improving access to dental services for homeless and disadvantaged adults

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**Background**

Social disadvantage is a result of multiple factors: a shortage of affordable housing, unemployment, drug and alcohol use, and mental illness.

In Australia, approximately 105,000 people are homeless.

Young people (<24yrs), Indigenous Australians and males are a large proportion of the homeless population.

This population faces higher rates of: mental illness, tuberculosis, alcoholism, poor nutrition and blood-borne diseases.

In terms of oral health, this population has higher rates of decayed, missing, filled teeth (DMFT) scores and poorer oral health related quality of life.
Ways to improve oral health

Barriers to accessing dental care

- Cost of care
- Waiting lists for publically funded services
- Lack of transport
- Lack of information
- Fear

Suggested ways to overcome barriers:

- Targeted services are important
- Flexible modes of delivery (walk in clinics)
- Outreach clinics
- Integrating dental care, referral pathways and information within the overall care provided by support services available to the homeless
Today's presentation

- Implementation and evaluation of two programs aimed at improving access to dental care for disadvantaged people
  - Service integration model: where services are integrated into homeless services
  - System integration model: coordination and collaboration between mainstream services (OHA=MNOHS and UQ) and homelessness support services
NS and BYS identified an issue with oral health amongst BYS clients

Funding was awarded to develop a mobile dental rescue clinic

Service integration model: where services are integrated into homeless services

Set up included:
- Mobile dental chair and suction unit
- Autoclavable instruments
- Disposable instruments
- Consumable products

The aim of the dental rescue service was to provide free, accessible dental services to the clients of BYS
• The dental clinic is run 4 times a year (for a week at a time)
• Volunteer dentists, oral health therapists, hygienists and dental assistants run the clinic
• Volunteers are recruited through advertisements
• Volunteers are a range of UQ students, QH dental practitioners, private practitioners and assistants
• Check ups, oral hygiene instruction, smoking cessation advice, cleans, fissure seals and basic restorative services are offered
• Clients are give information on public services for further dental treatment
• Participants: clients of a BYS dental clinic
• Questionnaire administered before and after dental appointment
  • Demographics
  • Barriers to accessing dental services
  • Self report oral health
  • Post appointment questionnaire on experience and acceptability of service
• Clinical data:
  • Decayed, filled, missing teeth (DMFT score)
• Service data:
  • Appointment attendance
  • Dental services delivered (ADA item codes)
  • Information given to patient
  • Treatment plan status (complete or incomplete)
Demographics (n= 112)

Homeless youth (15-26 years) v General Australian population

- 53.6% v 49.8% Male
- 25.0% v 1.6% Indigenous
- 83.0% v 70.3% Born in Australia
- 67.0% v 15.2% Daily smoker
- 85.7% v 31.2% Eligible for public dental care
- 77.7% v 6.1% Unemployed
- 27.4% v 59.3% Usually visit for check up
- 64.2% v 29.9% Avoided dental care due to cost

a) 2014 Homeless adults (Brisbane, 15+ years, n= 58)
b) 2011 ABS (Brisbane, 15+ years, n = 1,619,207)
c) i. 2013 NDSHS (QLD, 14+ years)
ii. 2013 NDSHS (Australia, youth 18-24 years)
d) 2004-06 NSAOH (QLD, 15+ years, n= 2,052)
e) 2016 ABS (Queensland, all ages)
f) 2004-06 NSAOH (Brisbane, 15+ years, n = 910)
Self-perceived and assessed oral health (n = 112)

30% (n = 33) self rated poor oral health
  • 32% (n = 35) fair
  • 28% (n = 31) good
  • 11% (n = 12) very good/excellent

5% (n = 5) believed their mouth had poor function
  • 21% (n = 24)
  • 45% (n = 50) good
  • 30% (n = 33) very good/excellent

77% (n = 86) believed they needed dental treatment
  • restorative needs (46% n = 18)
  • orthodontic concerns (26% n = 10)
  • tooth pain (23% n = 9)
  • broken/chipped teeth (21% n = 8)
  • tooth sensitivity (18% n = 7)
  • wisdom teeth (15% n = 6)

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<tr>
<th>Homeless youth population DMFT</th>
<th>General Australian youth population DMFT</th>
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<tr>
<td>3.05</td>
<td>0.62</td>
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<tr>
<td>2.19</td>
<td>0.60</td>
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<tr>
<td>2.49</td>
<td>1.96</td>
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<td>7.72</td>
<td>3.17</td>
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Appointment attendance
- 211 appointments were pre-booked
- 119 (57%) failed to attend
- 150 appointments were held during the four weeks
  - on 116 different patients (34 appointments were revisits)

Services delivered
- Using item codes, 640 services were delivered
- Estimated value of the services delivered $47,700 or $320 per appointment
- Majority (69%, n= 444) were preventative services
  - 130 examinations
  - 117 cleans
  - 63 restorations
  - 94 fissure seals

Outcome of care
- 72% (n= 84) ‘low risk’
  - 98% (n= 82) started treatment plan
  - 56% (n= 47) completed their treatment
- 28% (n= 32) ‘high risk’
  - needed to be completed at an external clinic ie extraction tx, toothaches

Evaluation of 4 rescue weeks (1 year)
Volunteers, cost and client satisfaction

Volunteers
- 14 dentists
- 10 oral health therapists
- 3 hygienist
- 21 dental assistants
- Total combined time of 288 hours

Cost
- $5400 for dental equipment (the dental chair, dental unit, suction unit, reusable instruments and dental hand pieces)
- $3600 consumable dental products (disposable instruments and products for check-up, cleans, restorations and local anaesthetic)
- Approximately $10-17 per appointment of consumable products used

BYS client satisfaction
- 97% felt the service they received was suitable for them
- 98% would use the service again
- 95% said the information they received on oral hygiene and free external dental clinics was excellent or good
Service integration model

Feasibility
- a large proportion failed to attend pre-booked appointments
- ‘drop-in’ nature of appointments that is preferred
- estimated value of services delivered during the first year of the dental clinic, exceeded the cost to set up the service

Sustainability
- Consumables will continue to be an ongoing but modest cost
- The reliance on volunteers appears to be sustainable for the program

Acceptability
- Positive experience
- Would use the service again
Oral Health Alliance Priority Access Program

- A collaborative project was developed between The University of Queensland School of Dentistry and Metro North Hospital and Health Service
- System integration model: coordination and collaboration between mainstream services (OHA= MNOHS and UQ) and homelessness support services
- October 2017
- The intervention assisted eligible disadvantaged adults to access public dental services.
- Community organisations within 5km of the CBD of Brisbane were contacted to gauge their interest in participating in this intervention
- The facility was required to have:
  - private space or room with a chair for oral examinations
Establishment of the Oral Health Alliance

Background

• 2017 - Metro North Oral Health Services (MNOHS) and UQ Oral Health Centre formed the Oral Health Alliance

• MNOHS 3 year informal program to provide access for homeless/disadvantaged

• UQ research program targeting homeless/disadvantaged youth and adults
Oral Health Alliance Priority Access Program

Benefits

- Quality and continuity of care maintained
- Experience of staff
- Well established connections already part of our business
- Ability to evaluate and conduct research
- Further scope for similar activities
Volunteer dental practitioners (including dentists, oral health therapists and dentistry students) were recruited through the School of Dentistry and promotion by local dental associations.

Participants of the intervention were:

- Assessed for dental treatment needs (i.e. diagnostic, periodontal, restorative)
- Provided information on how to care for their mouths
- An explanation of potential treatment needs
- Offered a dental appointment in the same week at the Oral Health Centre (OHC)
- Provided written information on where the dental clinic was located.
Evaluation methods

- Participants: clients of a community organisations
- Questionnaire administered before and after dental appointment
  - Demographics
  - Barriers to accessing dental services
  - Self report oral health
  - Post appointment questionnaire on experience and acceptability of service
- Clinical data:
  - Decayed, filled, missing teeth (DMFT score)
- Service data:
  - Appointment attendance
  - Type of treatment received
  - Feedback
Demographics (n = 76)

Homeless adults (23-61 years) v General Australian population

- 38.7% v 49.8% Male
- 10.8% v 1.6% Indigenous
- 77.3% v 70.3% Born in Australia
- 57.3% v 15.2% Daily smoker
- 100.0% v 31.2% Eligible for public dental care
- 85.3% v 6.1% Unemployed
- 13.3% v 59.3% Usually visit for check up
- 54.5% v 29.9% Avoided dental care due to cost

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### Self-perceived and assessed oral health (n= 76)

**Self-report oral health rating**
- Overall fair/poor 76.3% (n= 58)
- Function fair/poor 48.7% (n= 37)

**Brushing frequency**
- Once a day 36.8% (n=28)
- Twice a day 35.5% (n=27)

**Last dental visit**
- In last 12 months 32.9% (n=25)
- Over 12 months 60.5% (n=46)
- Can’t remember 6.6% (n=5)

**Accessed in the last 12 months for teeth**
- Dental specialist 1.3% (n=1)
- GP/Doctor 9.2% (n=7)
- Emergency department 7.9% (n= 6)
- Other non-dental professional 2.6% (n=2)

**Barriers to dental care**
- Fear 23.4% (n=18)
- Lack of facilities 7.8% (n=6)
- Transport 3.9% (n=3)
- Cost 54.5% (n=42)

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## Evaluation results

### Appointment attendance

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<th>Community organisation distance from Oral Health Centre</th>
<th>Did not attend</th>
<th>Attended</th>
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<tr>
<td>Total</td>
<td>11 (14.7)</td>
<td>64 (85.3)</td>
</tr>
<tr>
<td>4.5km</td>
<td>2 (8.7)</td>
<td>21 (91.3)</td>
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<tr>
<td>1.3km</td>
<td>2 (13.3)</td>
<td>13 (86.7)</td>
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<tr>
<td>1.1km</td>
<td>2 (13.3)</td>
<td>13 (86.7)</td>
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<tr>
<td>1.8km</td>
<td>5 (22.7)</td>
<td>17 (77.3)</td>
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### Treatment need assessed at screening

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<th>Did not attend</th>
<th>Attended</th>
</tr>
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<tbody>
<tr>
<td>Total</td>
<td>10 (14.5)</td>
<td>59 (85.5)</td>
</tr>
<tr>
<td>Diagnostic</td>
<td>9 (16.7)</td>
<td>45 (83.3)</td>
</tr>
<tr>
<td>Periodontal</td>
<td>8 (17.4)</td>
<td>38 (82.6)</td>
</tr>
<tr>
<td>Restorative</td>
<td>6 (25.0)</td>
<td>18 (75.0)</td>
</tr>
<tr>
<td>Surgical</td>
<td>7 (22.6)</td>
<td>24 (77.4)</td>
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### Appointment time

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<tr>
<th>Appointment time</th>
<th>Did not attend</th>
<th>Attended</th>
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<tbody>
<tr>
<td>AM</td>
<td>3 (8.8)</td>
<td>31 (91.2)</td>
</tr>
<tr>
<td>PM</td>
<td>8 (19.5)</td>
<td>33 (80.5)</td>
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- Treatment at the initial appointment:
  - diagnostic (100%, n= 75)
  - preventive (31.3%, n= 20)
  - periodontal treatment (18.8%, n= 12)
  - restorative (n= 3)
  - prosthodontic (n= 2)
  - endodontic (n= 2)
  - surgical (n= 1)
Volunteers and feedback

Volunteers

- 5 dentists
- 3 oral health therapists
- 8 dental students
- Total combined time of 246 hours

Feedback

- What worked well:
  - the dental students and clinical staff
  - the information provided
  - the calm/positive environment
  - the timing/flexibility of the appointment

“I’m very thankful. I haven’t seen the dentist for 20 years because of fear and finances. Everyone has been very professional and lovely and very considerate and thoughtful.” Female participant.

“Very helpful… The student I was with explained as she went along and explained what was happening with my teeth.” Male participant.
Basic dental care in the community
BYS pilot
• (one community organisation)

Comprehensive and complete care in existing facilities
Priority access pilot
• (multiple CO’s & one QH facility)

Complete dental care pathway
Upscale of community service and facilitated care pathway

Public dental facilities
Contact

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