Evaluation and Program Planning 71 (2018) 46–50

Contents lists available at ScienceDirect

Evaluation and Program Planning

journal homepage: www.elsevier.com/locate/evalprogplan

Does a facilitated pathway improve access to dental services for homeless and disadvantaged adults?

N. Stormon[a,*], A. Pradhan[a], A. McAuliffe[b], P.J. Ford[a]

[a] The University of Queensland, School of Dentistry, UQ Oral Health Centre, Herston Rd, Brisbane, QLD 4006, Australia
[b] Oral Health Service, Metro North Hospital and Health Service, Herston, QLD 4029, Australia

ARTICLE INFO

Keywords:
Homeless
Disadvantaged
Intervention
Oral health
Public dental facility
Access

ABSTRACT

Access to dental care is poorer for people experiencing homelessness and disadvantage due to barriers such as lengthy waiting lists, lack of transport, lack of information and fear of authorities and treatment. This study aimed to evaluate a system integration model for oral health care for clients of homeless services in Brisbane, Australia. This model aimed to provide a facilitated access pathway between homeless community organisations and a public dental service to improve access to dental care. Participants were adult (≥18 years) clients Brisbane homeless community organisations. Those who participated in the intervention evaluation completed a questionnaire, had their oral health screened and followed up for feedback at their dental appointment. Seventy-six clients of community organisations in Brisbane participated in the intervention and its evaluation. Fear was a barrier to accessing dental services for 23% (n = 18). Attendance to the subsequent appointments at the public dental clinic was high, with 85% (n = 64) attending their first appointment. A higher proportion of participants who had surgical and prosthodontic treatment needs at the screening did not attend their appointment compared to those with other needs. Overall the model piloted in this study had positive outcomes; with high attendance rates to the dental facility and positive experiences by participants.

1. Introduction

Homelessness is a complex social disadvantage that is the result of many factors including a shortage of affordable housing, unemployment, drug and alcohol use, mental illness and more (Shelton, Taylor, Bonner, & van den Bree, 2009). In the 2011 Australian census, approximately 105,000 people were identified as homeless (Australian Bureau of Statistics, 2012). The relationship between homelessness and health outcomes is complex. Diverse interlinked risk factors such as unemployment, low income, substance abuse and poor access to care contribute to poorer general and oral health at population and individual levels (Australian Health Ministers' Advisory Council, 2015; Australian Institute of Health & Welfare, 2009). In comparison to the general population, people with socioeconomic disadvantage have higher rates of decayed, missing and filled teeth (DMFT) and poorer oral health related quality of life (Australian Health Ministers' Advisory Council, 2015; Ford, Cramb, & Farah, 2014; Jamieson, Parker, Steffens, & Logan, 2011; Kisely et al., 2011).

The Australian Health Ministers' Advisory Council has identified specific population groups as in need of targeted intervention in relation to oral health, including people experiencing homelessness or disadvantage. Described as 'priority populations', these groups are those experiencing the greatest burden of poor oral health and facing the most significant barriers to accessing oral health care (Australian Health Ministers' Advisory Council, 2015). There is substantial overlap in these populations as people in these groups often experience multiple disadvantage such as mental illness, disability and complex medical conditions (Australian Health Ministers' Advisory Council, 2015).

Restricted access to dental care is a factor in poor outcomes for these groups (Australian Health Ministers' Advisory Council, 2015). Barriers to access include costs of care, lengthy waiting lists for publicly funded services, lack of transport, lack of information and fear of authorities and treatment (British Dental Association, 2003; Daly, Tim Newton, & Batchelor, 2010; Ford et al., 2014; Pradhan, Slade, & Spencer, 2009; Quilgars & Pleace, 2003). Stigma and discrimination have also been described as hindering access (British Dental Association, 2003; Daly et al., 2010; Quilgars & Pleace, 2003). National Australian data indicates dental attendance rates were poorest for the lowest income brackets and this finding has been consistent over the last 10 years (Ellershaw, 2014; Slade, Spencer, & Roberts-Thomson, 2007a; Slade, Spencer, & Roberts-Thomson, 2007b).

Access to health care is a complex concept and services must be

* Corresponding author at: Oral Health Centre, 288 Herston Road, Herston, Brisbane, 4006, Australia.
E-mail address: n.cockburn@uq.edu.au (N. Stormon).

https://doi.org/10.1016/j.evalprogplan.2018.08.002
Received 13 April 2018; Received in revised form 4 July 2018; Accepted 7 August 2018
Available online 08 August 2018

acceptable, available and effective for a population to gain access (Aday & Andersen, 1974; Gulliford et al., 2002; Jezewski, 1995; Levesque, Harris, & Russell, 2013). Internationally, different approaches have been suggested to improve access to social and health services for people at risk of homelessness and include legislative intervention, system integration, service integration and enhanced service models (Black, 2011). Legislative intervention requires political and community action to elicit change through funding and policy. System integration refers to coordination and collaboration between mainstream services and homelessness support services (Black, 2011). Similarly, service integration is where services are integrated into homeless services. Enhanced service models use innovation to adapt existing services to improve access (Black, 2011).

In line with these approaches, it has been recommended access to dental care for those accessing homeless services would be enhanced by integrating dental care, referral pathways to fixed dental clinics and information within existing community support services (Ford et al., 2014). Targeted services have been identified as important for this population with flexible modes of delivery and outreach clinics suggested as ways of overcoming barriers and enabling access to screening and treatment (Daly et al., 2010). Targeted dental services are often ad-hoc and not evaluated.

Dental services currently available in Australia mostly include facilities that are private fee-paying and public subsidised facilities (for eligible patients). The majority of people with socioeconomic disadvantage are eligible to access public dental facilities. To access an appointment for public dental services in Brisbane, Australia patients call a central hotline to make an appointment and may be subject to waiting lists depending upon the facility and service required. In 2017, a collaborative project was developed between the University of Queensland School of Dentistry and Metro North Hospital and Health Service. This project aimed to evaluate an innovative system integration model for clients of homeless services. The model aimed to provide a facilitated access pathway incorporating the provision of community-based oral health screenings and referral for dental treatment an appointment at a public dental facility within the same week.

2. Methods

2.1. Intervention

A collaborative project was developed between The University of Queensland School of Dentistry and Metro North Hospital and Health Service in October 2017. The intervention assisted eligible disadvantaged adults to access public dental services.

A number of community organisations (n = 10) offering a variety of services to disadvantaged people (including housing, employment and food) were contacted by the first author to gauge their interest in participating in this intervention. These community organisations were within 5 km of the CBD of Brisbane. After the organisations expressed their interest in participating the researcher arranged a face-to-face meeting with the organisations and a site visit to assess the facility for appropriateness for the intervention. The facility was required to have a private space or room with a chair for oral examinations to be undertaken. Following the assessment of the facilities, dates were set at four organisations for the intervention to take place. Volunteer dental practitioners (including dentists, oral health therapists and dentistry students) were recruited through the School of Dentistry and promotion by local dental associations.

During October 2017, volunteer dentists, oral health therapists and dentistry students visited four community organisations in Brisbane to screen client's onsite. Participants of the intervention were assessed for dental treatment needs (i.e diagnostic, periodontal, restorative). The volunteer practitioner and students then provided the participant with information on how to care for their mouths, an explanation of potential treatment needs and offered a dental appointment in the same week at the Oral Health Centre (OHC) in Brisbane. Participants were provided with written information on where the dental clinic was located. The community organisations ranged from 1 to 4 km away from the OHC.

2.2. Evaluation

Participants were clients of four community organisations, aged ≥18 years and residing in Brisbane. Those who participated in the intervention were invited to participate in its evaluation. An initial questionnaire was completed by participants prior to their dental screening and scheduling of appointment. The questionnaire collected demographic data which included: age, gender, Aboriginal/Torres Strait Islander status, education level, smoking status, government concession cards, private health insurance, employment, residence type and transport method. Participants were also asked to rate their oral health overall and its function (ie the ability to speak, swallow and chew), usual reason for visiting a dental professional, barriers to receiving dental care in the last 12 months and method of transport for that day. Participants were asked if in the last 12 months they had visited a dental professional in the last 12 months or if they had accessed a dental specialist, doctor/GP, nurse, emergency department or other non-dental professional for their teeth, mouth or dentures. Oral health questions were adapted from the 2004-06 National Survey of Adult Oral Health and the 2013 National Dental Telephone Interview Survey (Chisopoulos, Harford, & Ellershaw, 2016).

Following the questionnaire, dental students and practitioners undertook the oral screening. Volunteers were briefed by researchers on the protocol for the questionnaire and dental screening. The screenings were conducted using a dental mirror (Mirror Lite- mirror head with a LED light) and a toothbrush and gauze to remove debris if needed. Screenings were undertaken with the participant sitting upright in a chair with their head tilted back for the volunteer to examine their mouth. Dental practitioners conducted oral assessments and collected data on: number of decayed, missing and filled teeth (DMFT), periodontal health (gingivitis, calculus and plaque scores); and treatment needs (diagnostic, periodontal, restorative, endodontic, surgical and prosthodontic need). The Periodontal Disease Index (PDI) were used to assess oral hygiene and gingival health (Ramfjord, 1967). The PDI was modified to assess gingivitis, plaque and calculus visually without a periodontal probe, to reduce the risk to all including medically compromised patients. Each sextant was assessed and scored between 0 and 3, with a scores ≥2 indicating poorer oral health.

Data was also collected by researchers regarding subsequent appointment attendance (attended, cancelled on the day of the appointment and did not attend without any notice) at the dental clinic and the type of treatment received. Participants were given the opportunity to give feedback about the program via an electronic survey after their appointment. They were asked to describe their experience with the program, whether the service was helpful, what worked well and any suggestions for improvement.

2.3. Statistical analysis

A descriptive analysis (proportions and means) of the data was performed using IBM SPSS (IBM Corp, 2016). Where the data was not normally distributed medians and inter-quartile ratios were calculated. Demographics and dental data were compared with data available for the general and homeless Australian population (Australian Bureau of Statistics, Australian Bureau of Statistics, 2011, 2016; Australian Institute of Health & Welfare, 2015; Ford et al., 2014; Slade et al., 2007a,b). The prevalence of a poor score (a score in any sextant ≥2) for gingivitis, plaque and calculus was calculated. Mean DMFT scores were reported and the prevalence of treatment needs, subsequent appointment attendance (attended and did not attend) at the dental clinic and the type of treatment received was also determined. Open-ended