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Program Evaluation of the Inner South Community Health Oral Health Program for Priority Populations

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Abstract: **Background**. This study evaluated an Oral Health Program for Priority Populations (OHPPP) in the Inner South of Melbourne, Victoria. **Methods**. Social Ecological Theory and the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework informed the study. It involved administering satisfaction questionnaires to 29 clients and conducting eight in-depth interviews and four focus group discussions with either clients, health care workers or partner agencies. **Results**. Most (92%) clients surveyed felt more positive about their health as a result of the OHPPP. Three themes emerged from the qualitative analyses: 1) good oral health is central to improving general health; 2) the OHPPP is valuable; and 3) there are difficulties in implementing the OHPPP. **Conclusions**. Clients and service providers view the OHPPP as accessible and rewarding. Our findings point to the need for policies that recognise the greater treatment needs of disadvantaged populations and that streamline the provision of their dental care.

Key words: Oral health, qualitative study, views and perceptions, program evaluation.

Poor oral health can result in pain, functional limitations, psychological morbidity, and social isolation.[1] There is substantial evidence that disadvantaged groups experience poorer oral health than those who are not disadvantaged.[2,3,4,5,6,7] Disadvantaged groups known to experience poor oral health include people experiencing homelessness,[8] people living with HIV,[9] people who have mental illness,[10] people living in pension-level Supported Residential Services (SRS), people with alcohol and other drug problems,[11,12] and Indigenous people.[13,14] For example, people with severe mental illness are over three times more likely to have lost all their teeth than the general community.[10] Reasons cited in the literature for the greater frequency of oral problems

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in these groups include victimization,[15] reduced access to dental care,[16,17,18] and poor physical health.[19]

Despite these inequalities, oral health programs for disadvantaged populations are rare. Those that have been conducted have focused on increasing client motivation and oral health literacy to improve knowledge and engagement with dental services.[20,21,22] For example, a randomized U.S. study showed motivational interviewing plus oral education was effective in enhancing short-term oral health behavior change for people with severe mental illness.[22] In Australia, early findings from a community-based oral health program for SRS residents resulted in improved access to dental care.[23] Australian Government initiatives such as the Australian National Oral Health Plan[24] have also suggested that community-based approaches are necessary to increase engagement with disadvantaged groups.[25,26]

However, limitations of previous studies are that they have not taken into account socio-cultural factors. Addressing socio-cultural factors is important because disadvantage occurs in social, cultural, and political contexts that shape and define the experiences of disadvantaged people.[27] Structural inequalities such as discrimination and limited participation in the workforce widen the gap between oral health requirements and health service delivery in disadvantaged groups. However, programs that consider the socio-cultural environment on the oral health needs of disadvantaged populations are rare.

Inner South Community Health (ISCH), Melbourne, Australia, is conducting an oral health program for disadvantaged populations called the Oral Health Program for Priority Populations (OHPPP). The OHPPP is a collaborative partnership between the community services working with disadvantaged populations and dental and administrative teams within ISCH. It has been developed because Inner South Community Health is located in an area of mixed socioeconomic status including neighborhoods of severe disadvantage. It aims to provide high quality care that is evidence-based[28] and accessible, and that incorporates health promotion and encourages partnerships. Key program characteristics include assertive outreach (such as the ISCH Service Dental Outreach to people with mental illness),[29] in-reach (i.e., facilitating protected clinics for certain client groups) and cross-team collaboration (e.g., cross-referral between health teams within ISCH). It targets priority populations namely, people experiencing homelessness, people living with HIV or mental illness, those living in pension-level SRS, people with alcohol and other drug problems, and Indigenous Australians. The OHPPP has been operational since 2006, but it has not been evaluated in detail. This study aimed to conduct a program evaluation of the OHPPP.

Theoretical underpinnings. The study was informed by the Social Ecological Theory[30,31] which provides a framework for understanding the interrelationships of people and environments.[32] The theory suggests that people become marginalized due to the interplay of individual (e.g., knowledge, attitudes, skills, physical health), social (e.g., support from peers, family attitudes, cultural values, community norms, stigmatisation), and environmental factors (e.g., local neighbourhood barriers, media, policy, unemployment/poverty). Therefore, community health initiatives should address all these factors rather than simply try to change an individual's health literacy and

health-seeking behaviour. The Social Ecological model suggests that enabling environments for disadvantaged people are those in which these multiple factors are organised to complement individual efforts at behaviour modification (e.g., increasing proximity to health facilities, exposure to social networks, welfare support, access to healthy food and active transport, and health promoting primary care). The Social Ecological Model has been used in understanding issues pertinent to Indigenous Australians,[33,34] low income groups,[35] those with mental illness,[36] and people living with HIV.[37]

Evaluation framework. Glasgow's RE-AIM framework[38] was used to help understand the mechanisms for change. The model identifies five dimensions of program quality that interact to have an impact on public health: Reach, Effectiveness, Adoption, Implementation, and Maintenance.

Methods

Study setting and recruitment. The study was conducted between 2012 and 2013 in ISCH. Inner South Community Health provides services to the Port Phillip and Stonnington Local Government Areas, Melbourne, Australia.[39] These areas are of mixed socioeconomic status, with high levels of factors such as psychiatric disability (registered mental health clients 12.6% in Port Phillip, compared with 8.9% in Metro Melbourne and 11.0% in Victoria)[39] and homelessness (1.8% of population homeless in Port Phillip in the 2011 Census of Population and Housing[40,41] compared with 1.0% in Metro Melbourne and 1.0% in Victoria).[42] Study participants were the largest and most influential stakeholder groups engaged with the OHPPP, namely: 1) client consumers from disadvantaged populations; 2) in-service health care workers and 3) partner agencies (crisis care accommodation, mental health workers, drop-in centre managers).

The OHPPP and dental care in Australia. The OHPPP is a public dental service that provides eight clinics for preventative and restorative dental care across two clinical sites in Melbourne (South Melbourne and Prahran). The OHPPP provides dental services in the community to approximately 300 SRS clients in 11 pension-level SRSs. In 2015–2016, the OHPPP treated approximately nine Indigenous Australians and 29 people experiencing homelessness or at risk of homelessness per month. The practitioners who were interviewed worked at both sites. Dental Practitioners have fractional appointments with ISCH as well as other private and/or government employment. They are recruited through (inter-) national web-based advertisements and pursue their own professional continuing education. In Australia, Dental Practitioners must be registered to practice. Eighty percent of dentists work in metropolitan areas, most of these in the private sector.[43] Public dental care in Australia is partially funded by the federal government's national health insurance scheme called Medicare, paid for by an income tax surcharge. Medicare provides Australian residents with free or subsidised treatment for some public dental care services such as ISCH. Access to public dental services for general patients is limited by long waiting lists; however, in Victoria, priority populations are exempt from waiting lists. Private health insurance can be purchased to cover dental care not covered by Medicare, but it doesn't usually provide full coverage, with the gap in the cost of care being paid for by individuals.[44] In 2010–11, dental care cost

$7.857 billion[45] to which individuals contributed 58% and the federal government contributed $1.437 billion.[46] Most funding for public dental services, including the OHPPP, comes from State Governments. In Victoria, co-payments apply to public dental services (~ $27 per visit) however, priority populations are exempt from co-payments.

Method of data collection. Three data collection methods were used among the various stakeholders engaged with the service. These were client satisfaction questionnaires, in-depth interviews and focus group discussions. Client satisfaction questionnaires were used to determine individual client's attitudes and motivation to adopt dental self-management behaviours. In-depth interviews were the method of choice to obtain detailed information about the strengths and weaknesses of the implementation of the program from key informants. Focus group discussions were chosen to collect diverse perspectives on how service delivery, and economic and policy factors affect disadvantaged individuals' health-seeking behavior. This is consistent with the Social Ecological Theory, which asserts that community health initiatives should operate at multiple levels.[30]

Ethical approval was obtained from Monash University Human Ethics Research Committee.

Given that the stakeholders had different roles and varying levels of engagement with the service, and in order to account for the differing type of disadvantage, participants were conveniently recruited from existing ISCH networks. Inner South Community Health networks have been developed since the inception of the OHPPP. They consist of all those involved in the service (client consumers and service providers across two sites) from a defined geographic area in ISCH. Recruitment was facilitated by ISCH management staff who had a working knowledge of stakeholder's engagement with the program and who would be able to provide informative data. The client satisfaction questionnaires were administered face-to-face to a range of disadvantaged individuals by peer (consumer) researchers from ISCH. Disadvantaged clients attending clinics were invited to complete the questionnaires. Disadvantaged clients differ substantially from the general client population in terms of income, housing, employment and health characteristics. Participants for in-depth interviews were sampled from different disadvantaged groups (e.g., SRS accommodation clients, people living with HIV), based on their engagement with the program, ability to provide informative data, and ability to reflect the range of priority population groups. Focus group discussion participants were included based on their role within the service (Table 1). For example, in-service health care workers who mainly provided dental therapy (dentists, hygienist, dental receptionists) formed one focus group. Partner agencies (crisis care accommodation workers, mental health workers, drop-in centre managers) formed another focus group. Participants for the focus groups were sampled to reflect diverse roles within the service.

Obtaining consent and the interview process. At the in-depth interview or focus group discussion, the researcher explained the study to the participants using a plain language statement and written consent was obtained. Thirty-nine clients, in-service health care workers and partner agency workers consented to participate in eight in-depth interviews and four focus group discussions (Table 1).

An experienced facilitator using a standard interview schedule in an ISCH meet-

Table 1.

DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

	Number of participants	Age range/age (years)	Stakeholder group	Worker type/years engaged with ISCH or OHPPP	Sex
FGD					
1	12	25–38	In-service health care worker	Dentists and dental therapists; administrators	10F, 2M
2	5	22–37	Partner agency workers	Crisis care accommodation, mental health workers, drop in centre managers	3F, 2M
3	6	24–30	People experiencing homelessness/people with alcohol and other drug problems[a]	3–5 years	4F, 2M
4	8	25–37	Indigenous Australians/ people with alcohol and other drug problems	4–6 years	8M
In-depth interview					
1	1	58	SRS/mental illness client	10 years	M
2	1	55	SRS/mental illness client	8 years	F
3	1	60	SRS/mental illness client	2 years	M
4	1	44	PLHIV	10 years	M
5	1	48	PLHIV	5 years	M
6	1	54	Dentist	20 years	F
7	1	35	Dentist	2 years	M
8	1	46	Dentist	7 years	M

Notes
[a] 9 homeless were expected to attend, but only 6 attended.
PLHIV= person living with HIV
SRS = special residential service
M= male
F= female
OHPPP = Oral Health Program for Priority Populations
ISCH = Inner South Community Health
FGD = Focus Group Discussion.

ing room led each in-depth interview and focus group discussion. A note-taker took written notes about key concepts to help with subsequent data coding. The interview schedule for in-depth interviews/focus group discussions included open-ended questions formulated using a review of the existing evidence and Social Ecological Theory, with the input from management staff at ISCH. Data collection and preliminary analyses were conducted iteratively with one in-depth interview/ focus group discus-

sion informing subsequent in-depth interviews / focus group discussions until it was agreed by researchers (John Oldroyd and Vajira Nanayakkara) that no new themes were emerging. Each in-depth interview and focus group discussion lasted 60 minutes and was audio-taped. Participants were offered a $30 gift voucher for the time taken to participate. Audio-tapes of the in-depth interviews and focus group discussions were later transcribed verbatim for analysis.

Data analysis. Client satisfaction questionnaires were analysed using descriptive statistics (e.g., proportions). Detailed analyses of in-depth interview and focus group discussion data were conducted manually by two researchers (John Oldroyd and Vajira Nanayakkara) to identify themes. To ensure inter-coder reliability, the two researchers independently coded the transcripts.[47] This process was guided by a framework analysis[48] and included the following key stages: 1) familiarization, 2) identifying a thematic framework, 3) indexing, 4) charting, 5) mapping and interpretation. Familiarisation with the data was achieved by reading the transcripts in their entirety several times and reading the supplementary notes taken by the note-taker.[49] The thematic framework was developed by coding short phrases, ideas or concepts arising from the text and developing categories. Indexing comprised sifting the data, highlighting and sorting quotations and making comparisons both within and between focus group discussions. Charting involved identifying examples from the transcripts to illustrate each theme.[50] The data were interpreted by examining the words, context, internal consistency, frequency, extensiveness, specificity, and intensity of comments in relation to the emerging themes and the Social Ecological Theoretical framework. Researchers met to discuss the development of the themes with reference to the transcript data. Where there were differences of opinion about emerging themes, researchers re-read the transcripts independently to ascertain thematic identity and composition.

Results

Twenty-nine clients completed client satisfaction questionnaires. An additional thirty-nine participants who were either clients (none of whom had completed questionnaires), in-service health care workers, or partner agency workers, participated in eight in-depth interviews and four focus group discussions. The characteristics of in-depth interview and focus group participants are shown in Table 1.

Client satisfaction questionnaires consisted of 25 questions to assess how helpful the OHPPP has been to them. The questionnaire included questions about service provision, goal setting and supports for behavior change. Responses were analysed within four categories—oral health service management, oral health education, oral health behaviour change, and oral health attitudes changes (Table 2). Affirmative responses in client surveys ranged from 11 (41%) for oral health education to 26 (92%) for oral health attitudes changes.

Three themes emerged from the in-depth interview and focus group discussion analysis (Table 3).

Theme 1: Good oral health is central to improving general health. The Social Ecological Theory was helpful in understanding this theme by recognising the interaction of individual (e.g., depression, low self-esteem), social factors (e.g., family support to

Table 2.

CLIENT SATISFACTION QUESTIONNAIRE DATA (N=29)

Category	Criteria	Number (%) of clients who agreed
Oral health service management	Clinic location was very convenient	22 (78%)
Oral health education	Used the health information given to them at their dental appointment very often	11 (41%)
Oral health behavior change	Changed their behavior in relation to brushing/flossing their teeth	24 (85%)
Oral health attitude changes	Felt positive changes of their own or their family's oral health	26 (92%)

seek treatment), and environmental factors (e.g., supportive aspects of the program). The theme was characterised by clients: 1) describing themselves as having low self-confidence prior to participating in the OHPPP and 2) reporting dramatic improvements in their lives after their oral health improved. This theme was noted 18 times by clients and 13 times by service providers (Table 3).

Clients described themselves as having low self-esteem in conjunction with untreated co-morbid mental illness, such as depression and anxiety, prior to engaging with the OHPPP. They described feeling that their bad teeth reflected how they felt about life generally i.e., it was an outward sign of their inner self. Clients were very self-conscious about their poor oral health ("*hand over the mouth*") which they said was *"a representation of what was going on"* for them.

Many did not/could not engage with the OHPPP until their pre-existing mental illness had been treated. It was only then that they felt well enough to attend. These thoughts are summarised by this client living with HIV:

> . . . I hadn't used it [OHPPP] at all until about five years ago . . . [because of] social isolation and depression. After I began anti-depressants I started to feel a bit well in myself . . . when I started to get the depression in check, I came up here and made an appointment . . . " (*Client living with HIV, in–depth interview 4*)

Clients described the processes that helped them to engage with the service. These included being encouraged by their families to get dental treatment and supports offered by the program such as clear explanations about the steps involved in treatment from service providers. This is summarised by this client living with HIV:

> . . . the dentists, they were really, really good with me. They went very slowly, they broke things down and explained what procedures was going to be done . . . how long it was going to take . . . and sort of talked me through that and had me feeling a lot better about the situation . . . (*Client living with HIV, in–depth interview 4*)

Table 3.

MAJOR THEMES ARISING FROM THE FOCUS GROUP DISCUSSIONS OR IN-DEPTH INTERVIEWS[a]

	In-service health care worker staff/ dentists	Partner agencies' staff	Homeless/ drug and alcohol clients /SRS/mental illness client/ PLHIV	Indigenous clients/ people with alcohol and other drug problems
Theme 1: Good oral health is central to improving general health Clients inhibited and depressed prior to joining the program; dramatic improvements in their lives after oral health improves	5	8	14	4
Theme 2: The OHPPP is valuable No treatment if the program was removed; clients are very marginalized; clients need to be treated in the same way as other patients; need for trust	49	16	52	23
Theme 3: There are difficulties in implementing the OHPPP Incomplete reach; poor funding model; clients fail to attend; poor follow-up appointment system; in-service administrative difficulties; health promotion needs development	84	44	73	3

Notes
[a] Numbers are times a theme is mentioned.
PLHIV= person living with HIV;
SRS = special residential service;
OHPPP = Oral Health Program for Priority Populations

Successful treatment did a lot to improve client's health related quality of life (HRQoL), particularly in the mental health domain. Their improved self-confidence resulted in them following up opportunities they would not have otherwise investigated, as summarised by this client:

> . . . I cannot tell you how uplifting that was . . . the difference that it makes [to] your own self-confidence, it is fantastic . . . once I got my teeth fixed . . . I started interacting with people. I . . . regained some employment . . . in that time, my whole life has changed . . . (*Client living with HIV, in-depth interview 5*)

Theme 2: The OHPPP is viewed as valuable by service providers and clients. The Social Ecological Theory is helpful in explaining this theme. The theme was charac-

terised by: 1) perceptions by service providers and clients that the service was very important; 2) recognition that PP are among the most marginalised and underserved in the community; 3) acceptance of the need for PP clients to be treated in the same way as other patients and 4) identification that trust needs to be built between service providers and clients so a therapeutic relationship can develop. This theme was reported 75 times by clients and 65 times by service providers (Table 3).

Service providers and clients recognised that their work was very important, because their clients were people who would otherwise be lost to follow-up from dental care. Because of the vital role they played, service providers said it was very rewarding work. These reflections are summarised in the following quotation from a Dentist:

> . . . it [the OHPPP] is providing appropriate care for people who would otherwise not seek care from routine clinics. I guess it's one of the *raison d'etre* of the organization really . . . some dental clinics will [only] deal with the health card holders and pensioners but not the very disadvantaged . . . it is great . . . it makes it a very interesting place to work . . . *(Dentist, in-depth interview 6)*

Clients too recognized that the service was important. They said that private dental care was unaffordable and they too said they would have no dental care without a program such as this. This is summarised in the following quotation from an SRS resident:

> . . . Most people would not have any dental treatment at all . . . most people couldn't afford it . . . it makes a big difference . . . (*SRS resident, in-depth interview 2*)

Both service providers and clients identified that PP are among the most marginalised and underserved in the community. For their part, clients said they were used to having their needs trivialized, being ignored and made to feel unimportant. They said that it is a small step from that to being made to feel as though they were not wanted at all. Clients singled out the non-judgmental approach of the service providers as being particularly helpful. Moreover, the service was valuable because it recognised these vulnerable clients had special needs, one of which was to be respected as people in the same way as everyone else. Thus, ironically, their special needs were met by being treated the same as others. Although articulated by both service providers and clients, these views are best summarised in this quotation from a service provider:

> . . . I think part of the thing with marginalized people is that they are used to being totally ignored . . . whereas here the intention is to at least to engage with them as people . . . noticing that everyone has a story to tell . . . understanding that they are people not just numbers or mouths . . . *(ISCH staff member, focus group discussion 1)*

The importance of clients of being treated normally also arose in relation to their clinical care. They said they wanted to receive the same high standards of clinical care that everyone got, without them being singled out (i.e., being treated the same as everyone else). An example of this is in the implementation of universal blood precautions. One person living with HIV described being made to feel ostracised by a private practice dentist who did not seem to be aware of clinical practice guidelines for blood infections:

> . . . he [the private dentist] came in dressed like Darth Vader . . . you know it was space invaders stuff . . . it was gloves . . . it was cloak . . . it was mask, the full thing . . . you would think that they would be very aware of universal blood precautions . . . and you see other people and they have that little recoil backwards when they learn you are HIV positive and they start fidgeting with things, calling their nurses in and out of the room you can feel that in their behaviour . . . *(Client living with HIV, in-depth interview 4)*

In contrast, ISCH staff applied good clinical practice standards irrespective of the risk and therefore made clients feel that they are cared for in the same way as others. By treating all clients equally, trust was built and the foundations laid for lasting dentist/client therapeutic relationship. Trust was very important for many clients, some of whom had been poorly treated by government authorities, for example Indigenous male clients within the prison system. This is summarised by this quotation from a Partner Agency manager:

> . . . previous bad experiences—a lot of our men are getting mistreated in the prison systems . . . so I think it takes a lot to get their security level up to a state where they feel safe enough to sit in a chair and get the work done . . . *(Partner Agency Manager, focus group discussion 2)*

When trust between service providers and clients was established, word of mouth became a powerful means of increasing uptake of the program by similar clients (thereby increasing so-called *reach*).

Theme 3: There are difficulties in implementing the OHPPP. The *reach* component of the RE-AIM framework and the Social Ecological Theory are helpful in understanding this theme. (*Reach* refers to the proportion of a target population accessing the service.) Difficulties with implementing the OHPPP included: 1) the follow-up of clients 2) service provider dissatisfaction with the funding model; and 3) in-service administration This theme was noted 76 times by clients and 120 times by service providers (Table 3).

An implementation difficulty was the follow-up of clients. This centered around three areas: 1) PPs are highly mobile 2) PPs often fail to attend appointments 3) follow-up arrangements were not structured clearly enough. Partner agencies said that PPs (e.g., people living with homelessness) are a highly mobile population. Partner agencies said that clients frequently move out of the area as better living conditions become available and it was no longer feasible for them to attend ISCH. A consequence of this was increasing difficulty in achieving continuity of care. Clients needed to be referred to new providers to ensure ongoing care although the mechanism for doing this, or if it was possible, was unclear. This is summarised in the following quotation from a Crisis Accommodation Care Manager:

> . . . our client group is highly transient so if they make it to an appointment here that is good, but they might get housing in an area that is completely out of this region . . . is there a capacity to refer to a dentist outside of this area? . . . *(Crisis Care Manager, focus group discussion 2)*

Partner agencies also said that clients failed to attend appointments more frequently than in the general dental population, irrespective of whether they had moved. They attributed this to their clients having competing needs (e.g., mental health problems and drug and alcohol-related problems). Case workers and managers in partner agencies said that a way to improve follow-up attendance was to know a client's dental treatment plan in advance so that they could schedule appointments. This is summarised by the following quotation from a Crisis Accommodation Manager:

> . . . The communication between dentist and client can get a little fragmented . . . and clients can get quite angry with that. What has worked well is when I get an email from Inner South saying, "Client x requires the following and client y requires the following and this is the amount of time it is going to take" . . . *(Crisis Accommodation Manager, focus group discussion 2)*

Clients said their follow-up arrangements were not structured clearly enough. They described the follow-up system as consisting of the following: the clients being put on a waiting list and told that they would receive another appointment in due course. Often this didn't happen in reasonable time (*"falling out of the system"*). When they made enquiries they were told they were still on the waiting list. Eventually they gave up and sought treatment elsewhere. Clients said they would have preferred to have been contacted and reassured that they were still in the system and that their turn would come.

Dentists asserted that the funding structure of public dentistry made the implementation of the program difficult. The level of funding for PPs is similar to that of a usual course of care for general patients despite the clinical needs of the PPs being much higher. Priority populations are complex cases because often PPs hold off seeing a dentist until the last minute when they are driven to it because of pain. By then, their dental problems are serious and they cannot be fitted into the usual course of care. This is summarised by this quotation from a dentist:

> . . . a general course of care we are expected to finish in 5–6 visits . . . it is very hard with the PPs because they are the ones with very hard periodontal conditions . . . because of drug and alcohol use. Mental health clients, people who are homeless . . . they don't brush [their teeth] . . . so we have to do a lot more work [in these groups] than I would have to do in a general patient . . . *(Dentist, in-depth interview 7)*

There were also in-service administrative difficulties that service providers identified. For example, they reported in-house cross referral to be not well developed for reasons such as the funding model for OHPPP and the physical location of the buildings not allowing/encouraging intermixing of dental staff and staff from other teams. Given that clients have multiple problems, cross-referral between the drug and alcohol counselling, housing, or allied health care teams is particularly important. It was also due to the common attitude held by clients and staff that oral health is separate from the other areas of health. ISCH staff pointed out that traditionally dentists are not viewed as multidisciplinary but rather highly technical and specialised. These views are illustrated by this quotation from a dentist:

> . . . Yes, often people don't [refer] . . . people don't think of their mouth as having anything to do with their general health . . . you cannot isolate your mouth from the rest of your body . . . *(Dentist, in-depth interview 6)*

Discussion

This is one of the first studies to evaluate an oral health program for priority populations in Australia. The key findings from our study are that many clients have self-reported low self-confidence and pre-existing mental illnesses which, if left untreated, are barriers to them accessing the service; clients recognised that good oral health improved life opportunities; the OHPPP provides a unique service for marginalized people who may otherwise have no care; there are some difficulties in the implementation of the program for these clients who are highly mobile and have complex treatment needs. This study extends the literature by providing a detailed understanding of how an oral health program for priority groups is perceived by service providers and clients who have special needs but historically have low engagement with health services.

Clients said that there were many impediments to them taking up oral health care such as pre-existing low self-confidence and mental health problems. The two appeared bi-directional: low self-esteem results in poor self-care and poor (oral) health, which in turn exacerbates low self-esteem. This is consistent with previous studies finding that low-income adults and the homeless have poor oral health contributing to low self-esteem and dignity, which in turn had an impact on their engagement with health services, social interactions, and employment prospects.[51,52,53] Our study reinforces the point that self-confidence and access to oral health care are strongly interrelated in these vulnerable groups which in turn, influences oral health outcomes.

Our study found that clients viewed this dental program for disadvantaged populations as valuable, suggesting they would use it. Factors that were valued were it being is free at the point of care, volunteers picking up clients in cars, the staff's professionalism and friendly approach (which reduced dental anxiety), and staff treating clients the same way as they treated others. This finding is not consistent with the existing literature. For example, a study among low-income populations in Canada[51] found that low-income populations did not value dental care highly, viewing dental check-ups as luxuries, not necessities. Other studies have found that low-income populations delay accessing dental services until there is a dental emergency.[54] Further research is needed to investigate how these attitudes and practices can be changed in disadvantaged clients to help them access preventive dental care before emergencies arise.

Despite clients' valuing of the program, poor attendance at follow-up appointments was a major problem. This is also reported in the literature.[55] Clients reported that poor communication about follow-up appointments was a reason for their poor attendance. Service providers, however, suggested that clients were poor attenders even when appointments were arranged due to competing personal and health problems. In the literature, cost, fear, and transport difficulties are reasons identified for reduced attendance at appointments.[51,52] Financial difficulties hindered treatment, for example, by disconnection of clients' phones preventing telephone contact to arrange

appointments.[52] Lack of housing, and moving out of the area are further barriers to the completion of treatment, as are legal difficulties and prison sentences.[52] For clients with mental illness, psychotic episodes and the side effects of anti-psychotic drugs are also reasons.[24] Further research is needed to identify models of care that best support disadvantaged groups to attend follow-up appointments.

For service providers, the implementation of the OHPPP for complex cases was difficult due to the funding model. At the time of the interviews, funding was via Dental Units of Value (DUVs) which provide a fixed price for a completed Emergency Episode of Care, and a different fixed price for a General Episode of Care. This disadvantages clinics that see a high volume of complex emergency clients requiring several follow-up appointments (such as the PPs) and benefits clinics seeing large numbers of children or uncomplicated adult cases. The model results in longer waiting lists and incomplete courses of treatment for PPs, resulting in poor dental outcomes. Since July 2013, funding has reverted to an output-funding model based on Dental Work Activity Units (DWAUs) which allocate a value to specific treatment items. This means there is more funding given to higher output practices, though the dollar value allocated per DWAU seem to vary from agency to agency. Alternative funding models should be investigated, including those in which dental care is incorporated into primary health care services, funded by an increment in the Medicare income tax levy.[56,57]

Service providers viewed the OHPPP as valuable because it was helping those in most need. These attitudes complement the literature. For example, Loignon et al. found that dentists viewed poverty to either be due to an individual's lack of agency[58] or as a result of structural factors (sometimes called the *socio-lifecourse perspective*). Dentists with the socio-lifecourse perspective acknowledged the multifaceted nature of poverty and had more empathy toward people on welfare than their counterparts. In our study service providers had considerable empathy with clients ("*They are the most needy*") consistent with the socio-lifecourse perspective. The socio-lifecourse perspective is also consistent with the Social Ecological Theory which recognizes that multiple physical, social, cultural dimensions influence health outcomes. The socio-ecological perspective better prepares dentists to deal with poverty and social inequities encountered in clinical practice.

The disadvantaged populations included were conveniently recruited by ISCH management staff. This recruitment strategy may have attracted people with strong opinions possibly based on unpleasant or extremely good experiences, resulting in biased descriptions of the service. Our study excluded people eligible for, but not engaged in the system, which is an important population to learn from, and something that should be targeted in future research. Using three different approaches to data collection allowed for triangulation of the interpretation of the data, thus increasing validity. However, using three approaches was time consuming. Additionally, we were unable link individual clients' self-reports to their clinical status. This would have been a form of validation of the self-reports and would have provided a better understanding of the efficacy of the program. Future research of the efficacy of the OHPPP is warranted.

Conclusions. Service providers and clients view the OHPPP as important and rewarding. Our findings point to the need for interventions to improve the implementation of

the OHPPP by providing further supports for follow-up appointments and continuity of care. Policies are urgently needed that recognise the need for greater treatment for disadvantaged populations, and that streamline the provision of their dental care.

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