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Can oral healthcare for older people be embedded into routine community aged care practice? A realist evaluation using normalisation process theory

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ABSTRACT

Background: An intervention 'Better Oral Health in Home Care' was introduced (2012–2014) to improve the oral health of older people receiving community aged care services. Implementation of the intervention was theoretically framed by the Promoting Action on Research Implementation in Health Services framework. Process outcomes demonstrated significant improvements in older people's oral health.
Objective: To evaluate the extent to which the intervention has been embedded and sustained into routine community aged care practice 3 years after the initial implementation project.
Design: A Realist Evaluation applying Normalisation Process Theory within a single case study setting.
Setting: Community aged care (home care) provider in South Australia, Australia.
Participants: Purposeful sampling was undertaken. Twelve staff members were recruited from corporate, management and direct care positions. Two consumers representing high and low care recipients also participated.
Methods: Qualitative methods were applied in two subcases, reflecting different contextual settings. Data were collected via semi-structured interviews and analysed deductively by applying the Normalisation Process Theory core constructs (with the recommended phases of the Realist Evaluation cycle). Retrospective and prospective analytic methods investigated how the intervention has been operationalised by comparing two timeframes: Time 1 (Implementation June 2012–December 2014) and Time 2 (Post-implementation July 2017–July 2018).
Results: At Time 1, the initial program theory proposed that multi-level facilitation contributed to a favourable context that triggered positive mechanisms supportive of building organisational and workforce oral healthcare capacity. At Time 2, an alternative program theory of how the intervention has unfolded in practice described a changed context following the withdrawal of the project facilitation processes with the triggering of alternative mechanisms that have made it difficult for staff to embed sustainable practice.
Conclusion: Findings concur with the literature that successful implementation outcomes do not necessarily guarantee sustainability. The study has provided a deeper explanation of how contextual characteristics have contributed to the conceptualisation of oral healthcare as a low priority, basic work-ready personal care task and how this, in turn, hindered the embedding of sustainable oral healthcare into routine community aged care practice. This understanding can be used to better inform the development of strategies, such as multi-level facilitation, needed to navigate contextual barriers so that sustainable practice can be achieved.

What is already known about the topic?

- Various stand-alone interventions have attempted to improve oral health for older people. While short-term improvements in

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oral healthcare have been demonstrated, long-term sustainability has been unsuccessful.
- Successful implementation of an intervention does not necessarily guarantee sustainability.

What this paper adds

- Increases the understanding of contextual characteristics that undermine efforts to improve oral healthcare for older people and informs the development of tailored strategies to better support the embedding of oral healthcare into routine practice.
- Contributes to the development of methodologies that can be applied to evaluate sustainability in healthcare.
- Corroborates that sustainability evaluation should ideally be built into the life-cycle of all healthcare improvement projects.

1. Background

Despite overwhelming evidence that good oral health is essential for healthy ageing, it has been described as one of the most neglected aspects of care experienced by older people (Coker et al., 2016; Sloane et al., 2013; World Health Organisation, 2015). The aged care sector's lack of insight into the high-risk consequences of poor oral health (such as; malnutrition, poor diabetic control, stroke and cardiovascular problems, aspiration pneumonia and bacteraemia) perpetuates this neglect (De Lugt-Lustig et al., 2013; De Visschere et al., 2015; Knevel et al., 2016). This includes aged care staff underestimating the significance of oral healthcare as an effective, low cost infection control intervention (Thorne et al., 2001). Inadequate oral health content in entry-level nursing and aged care qualifications has been cited as a contributing factor (Hopcraft et al., 2010; Lewis et al., 2018). Similarly, older people and their families who accept that deteriorating oral health is a natural consequence of ageing, unknowingly contribute to the misconception that it takes a lower priority over other aspects of care (Slack-Smith et al., 2010; Nogueira et al., 2017).

Improving the oral health of older people has been the focus of two Australian Government funded projects led by the South Australian Dental Service under a program called Encouraging Better Practice in Aged Care. A project called Better Oral Health in Residential Care (2007–2009) demonstrated oral health improvements for residents by promoting a multidisciplinary model incorporating oral health assessment, oral healthcare planning, actioning daily oral care, and referral for dental treatment (Fricker and Lewis, 2009). In 2010, this was disseminated as a national one-off 'train the trainer' program under Australia's first Nursing Home Oral and Dental Health Plan. A second project called Building Better Oral Health Communities (2012–2014) followed. Its aim was to translate the residential aged care approach to suit the community aged care (known as home care) context through a model called Better Oral Health in Home Care (Lewis et al., 2016).

While the one-off national 'train the trainer' program was successful in raising the profile of oral health in residential aged care, learnings have since highlighted that improving oral health care for older people involves more than staff education (Goodman et al., 2016; Wårdh et al., 2012; Villarosa et al., 2018). Contemporary literature on implementation science corroborates this proposing it is the interaction of multi-level factors such as the nature of the evidence, the context in which the evidence is introduced, and the way in which the implementation process is facilitated, that influence an organisation's capacity to successfully absorb and sustain knowledge use (Kitson et al., 1998; Rycroft-Malone et al., 2011). Subsequently, the Building Better Oral Health Communities Project used a conceptual framework called Promoting Action on Research Implementation in Health Services to guide the Better Oral Health in Home Care Model's implementation into community aged care practice (Lewis et al., 2016). However, while the project demonstrated successful implementation outcomes, the extent to which the Better Oral Health in Home Care Model has been embedded into sustainable routine practice was unknown.

1.1. Sustainability

While sustainability is recognised as the logical endpoint of the implementation process, it is poorly defined in the literature with no agreed-upon definition, theories or models to guide its practice (Scheirer, 2013; Wiltsey Stirman et al., 2012). The literature generally refers to the seminal work of Shediac-Rizkallah and Bones (1998), and Scheirer (2005) who have conceptualised sustainability as consisting of three levels of operational outcomes: individual, organisational and community (Wiltsey Stirman et al., 2012). Individual outcomes refer to the continued benefits for clients after the initial program funding ends or following the initial implementation of a new program or procedure (Scheirer, 2005,2013). Organisational outcomes, often called institutionalisation or routinisation, are the continuation of the program activities (Scheirer, 2005, 2013). Community outcomes represent the continued capacity to deliver program activities following the initial program's capacity-developing processes (Scheirer, 2005, 2013). Further to this, is the understanding that sustainability is influenced by multi-level factors such as the nature of the context (policies and legislation, culture and structure), the nature of the evidence or innovation (its fit, adaptability and effectiveness), processes (fidelity monitoring, evaluation, efforts to align the intervention with the context), as well as, the capacity to sustain (funding resources, workforce characteristics and stability, and interpersonal processes) (Wiltsey Stirman et al., 2012, p. 9). While successful implementation is an important achievement, it is acknowledged that this does not necessarily guarantee sustainability. A recommended final step in the life-cycle of any healthcare project is the assessment of its sustainability two or more years following its implementation (Wiltsey Stirman et al., 2012).

A theory gaining popularity in explaining how sustainability takes place in healthcare is Normalisation Process Theory. Normalisation Process Theory is described as a social action theory that uses four reciprocal core constructs (coherence, cognitive participation, collective action and reflexive monitoring) to describe the processes by which interventions become embedded (or not) into routine healthcare delivery (May et al., 2007, 2009; Johnson and May, 2015). Coherence or sense making refers to what staff, either individually or collectively, do when faced with operationalising a new intervention into routine practice. This involves staff understanding the aims and benefits of the new intervention and how it is supposed to work, as well as, understanding their role and responsibilities (May et al., 2007, 2009). Cognitive participation or engagement refers to the work that defines and organises staff to build and maintain a practice network around the new intervention (May et al., 2007, 2009). This includes whether key staff members have continued to facilitate the new intervention so that staff remain engaged and support the actions and procedures needed to sustain it as an embedded routine practice (May et al., 2007, 2009). Collective action refers to the work that staff do to operationalise the new intervention into every day routines. This includes staff feeling accountable and confident in themselves and each other as they use the new intervention. This is underpinned by the skill-set of staff members and includes managing the new practice using various resources, protocols, policies and procedures (May et al., 2007, 2009). Lastly, reflexive monitoring refers to the appraisal work that staff

members undertake to define and manage the information needed to evaluate the outcomes of operationalising the new intervention (May et al., 2007, 2009). This includes systematically collecting information by formal and/or individual appraisal such as regular auditing and risk management processes.

In terms of understanding theories of behaviour change maintenance, Normalisation Process Theory recognises the importance of supportive environments and positive social influences in maintaining behaviour change (Kwasnicka et al., 2016). It describes social change as a three-stage process (implementation, embedding and sustaining), highlighting that the ability to integrate practices into a social context is key to maintaining staff behaviour (Kwasnicka et al., 2016). This concurs with a recent theory-led overview of systematic reviews by Johnson and May (2015) who examined the types of interventional strategies (such as; persuasive, educational and/or information, action and monitoring) most likely to produce sustained behaviour change. Strategies focussing on action, supported by educational input (such as; audit, feedback, reminders, educational outreach), were considered to be the most effective ways of maintaining staff behaviour (Johnson and May, 2015). These approaches were found to contribute to normative restructuring of practice; relational restructuring (with a focus on collective rather than individual action); modifying of peer group norms and expectations; and the continued reinforcing of modified peer group norms (Johnson and May, 2015). With regards to Normalisation Process Theory, this suggests that interventions that act through the constructs of collective action and reflexive monitoring are most likely to maintain changes in staff behaviour (Johnson and May, 2015).

Normalisation Process Theory, therefore, was used in this study as a mid-range theory to explain how staff have embedded (or not) the Better Oral Health in Home Care Model into routine practice. Consistent with the need to understand the complexity of multi-level influences on sustainability, including the mediating effect of context, a Realist Evaluation approach was applied to Normalisation Process Theory. Realist Evaluation employs a systematic investigative structure described as context-mechanism-outcome configurations to form explanations that go beyond determining whether the implementation of an intervention was successful (or not). The aims of Realist Evaluation are to consider what mechanisms have been generated, how they are influenced by contextual factors, and how they affect ongoing outcomes (Pawson and Tilley, 2013). When compared with other scientific paradigms, a realist approach offers this study a theoretically driven methodology with which to retrospectively and prospectively explore the interplay of Normalisation Process Theory core constructs in terms of mechanisms, context and outcomes that may have supported or hindered the embedding of the Better Oral Health in Home Care Model into routine practice.

1.2. Objective

The aim of this study was to evaluate the embedding of sustainable oral healthcare for older people into routine community aged care practice.

The objectives were to:

1 Review how the Better Oral Health in Home Care Model was designed to work.
2 Apply the Normalisation Process Theory core constructs as a framework with which to investigate how the Better Oral Health in Home Care Model has or has not been operationalised as intended by comparing two timeframes: Time 1 (Implementation June 2012–December 2014) and Time 2 (Post-implementation July 2017–July 2018).
3 Explain what mechanisms helped or hindered the use of the Better Oral Health in Home Care Model.
4 Explain what contextual characteristics supported or undermined the embedding of the Better Oral Health in Home Care Model via their influence on the identified mechanisms.
5 Describe the outcomes for home care clients resulting from the interaction between the identified mechanisms and contextual characteristics.

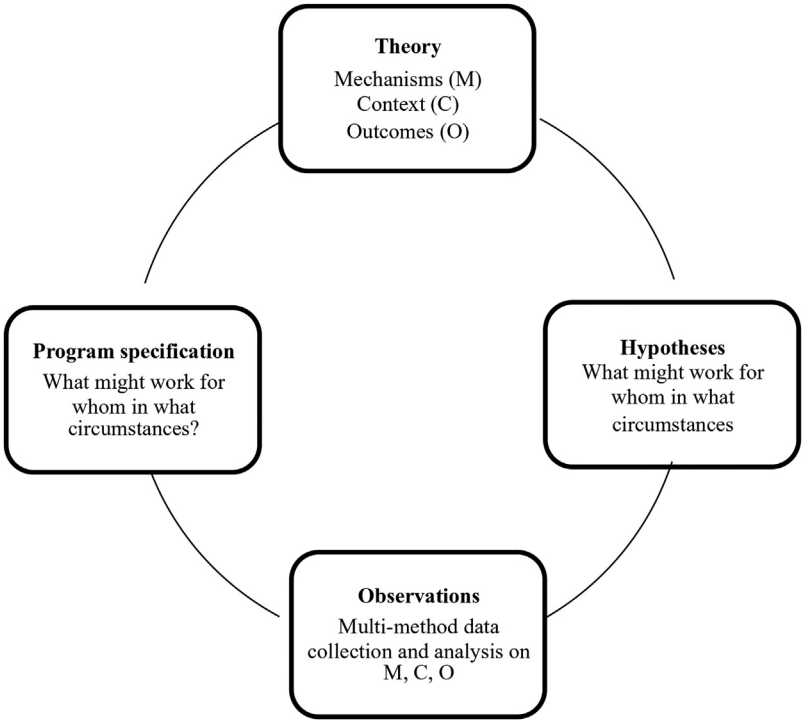

Fig. 1. Realistic Evaluation cycle.

1.3. Ethical approval

The study was approved by the University of Adelaide Human Research Ethics Committee (number H2016-276).

2. Methods

2.1. Study design

A qualitative approach was used based on a single case study with two subcases reflecting different contextual settings. The study design followed the recommended phases of the Realist Evaluation cycle (Pawson and Tilley, 2013, p. 85) and the reporting standards for Realist Evaluation (Wong et al., 2016). The Realist Evaluation cycle (Fig. 1) begins with the conjecture of possible context-mechanism-outcome configurations (referred to as the initial program theory) most likely to be active in the program or intervention being studied (Lacouture et al., 2015; Pawson and Tilley, 2013). Context-mechanism-outcome configurations represent the hypothesis that the program outcome emerges because of the action of an underlying mechanism which comes into operation only in a specific context (Pawson and Tilley, 2013). The hypothesis is further clarified through data collection and analysis of the question of what might work for whom in what circumstances, how and why. This information is used to describe alternate context-mechanism-outcome configurations to the initial program theory by developing what is referred to as a refined or alternate program theory. A key distinguishing feature is that a mechanism is not an intervention or activity, but rather, it is what makes an intervention work or not work by interacting with an individual's reasoning to trigger a change in behaviour (Astbury and Leeuw, 2010; Williams et al., 2017). A mechanism therefore, is not directly visible or measurable but must be inferred from the collected data (Astbury and Leeuw, 2010).

2.2. Context

The immediate context of the evaluation consisted of a large not-for-profit aged care provider. Established in the 1950s, it oversees residential care, retirement living, community home care and home support services across metropolitan and regional South Australia. The invitation to participate in this study was based on its past involvement as a collaborating partner with the South Australian Dental Service in the Building Better Oral Health Communities Project (2012–2014) and the previous Better Oral Health in Residential Care Project (2007–2009). Two community service sites were involved. One was metropolitan situated in the northern suburbs of Adelaide and the other was a country site that covered a large geographical region in the north of South Australia.

2.3. Recruitment

Purposeful sampling of participants from corporate, management and direct care staff positions including consumer representation, took place from both metropolitan and country sites. A liaison person from the participating provider distributed written information inviting potential participants to join the study. Contact details were given to the primary researcher (AL) following participant approval to be contacted. The initial plan was to recruit up to 16 participants as this sample size was considered adequate for the case study design. While a timeframe of six months had been allocated, it took over eight months to recruit 14 participants, with several follow-up invitations made during this time. Reasons for the slow response rate related to staff being preoccupied and/or unwilling to participate due to competing pressures such as work place restructuring and/ or other project commitments.

2.4. Data collection

Data were collected from 14 semi-structured interviews conducted by the primary researcher (AL) either face to face or by telephone and digitally recorded. The interview question guidelines have been included as supplementary information (Supplementary File 1). Interviews took place at a time and location convenient to the participant and lasted approximately 30 min with written consent obtained prior to the interview. A documentary review was also undertaken.

Supplementary File 1: Interview question guidelines

2.5. Data analysis

Qualitative data analysis employed a thematic approach (Fig. 2) combining retrospective and prospective approaches (Rycroft-

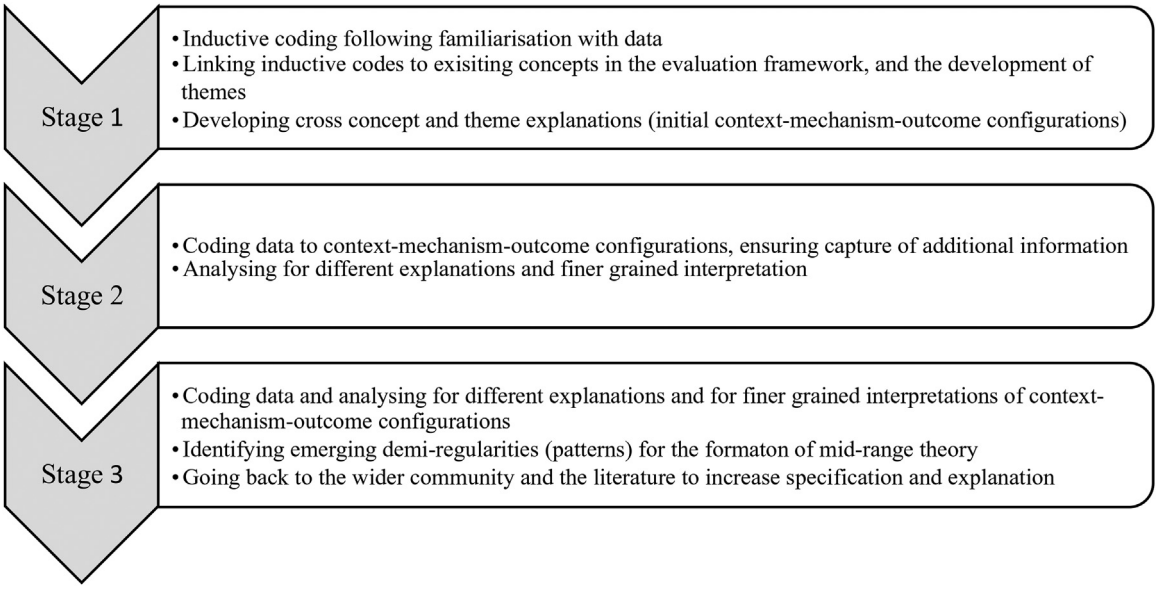

Fig. 2. Stages of analysis.

Malone et al., 2016, p. 5). Stage one used the Better Oral Health in Home Care Model implementation outcomes (Lewis et al., 2016) as data to describe how the Model was designed to work at Time 1. Analysis consisted of retrospective reflection using Normalisation Process Theory core constructs to describe possible context-mechanism-outcome configurations and the initial program theory. Stage two consisted of investigating how the Better Oral Health in Home Care Model unfolded in the community aged care context at Time 2. This involved comparing the original design with how the Model has been used in actual practice. Data collected from the interviews were transcribed verbatim and entered into a qualitative software program (NVivo pro-11) for coding. Data analysis involved an iterative process using a combined inductive and deductive approach to assign data to the most relevant Normalisation Process Theory theme or code. Stage three finalised the prospective construction of alternate context-mechanism-outcome configurations and developed an alternate program theory describing how the Better Oral Health in Home Care Model has unfolded in practice.

The data trustworthiness was enhanced by obtaining interview data from the perspectives of various levels of staffing (corporate, managerial, clinical and direct care staff) including consumer representation from the metropolitan and country sites. Input from three researchers (MH, an aged care representative; GH and AK, experts in implementation science and realist evaluation), was used to verify the primary researcher's (AL) data interpretation. This involved AL, MH, GH and AK separately reviewing randomly selected interview transcripts with any differences in the coding resolved through discussion. Finally, an interpretative meeting with a group of staff interviewees was held to check whether the data analysis matched their understanding of actual practice and, in doing so, provided the opportunity for further data analysis confirmation through discussion and challenge.

3. Results

Normalisation Process Theory's core constructs were used as a framework (Fig. 3) with which to compare the context-mechanism-outcome configurations of the initial program theory at Time 1, with those of the proposed alternate program theory at Time 2.

3.1. Initial program theory

3.1.1. Coherence

Staff participated in face to face training using the learning and training package specifically tailored to suit their learning needs. Home care workers reported significantly improved oral health knowledge and skills following their training and were highly positive of the learning and training package and (Lewis et al., 2016).

3.1.2. Cognitive participation

Organisational engagement was achieved by high-level corporate commitment to participate in the implementation of the Better Oral Health in Home Care Model. This included management representation on the project Steering Committee; the secondment of staff members as project offices (local facilitators) mentored by the public dental provider project team and an academic expert (external facilitators); and the participation of home care workers in reflective practice sessions included as part of the learning and teaching package (Lewis et al., 2016).

3.1.3. Collective action

Multi-level facilitation was identified as instrumental in the successful development and implementation of tailored strategies highly conducive to the community aged care context (Lewis et al., 2016). This involved the development of capacity building networks mentored by local and external facilitation processes, supported by the

Coherence	**Context**	**Mechanism**	**Outcome**
Time 1	Delivery of learning and teaching package tailored to suit the needs of staff	Increased home care worker understanding of how to provide evidence-based oral healthcare	• Older people reported better oral health
Time 2	No further staff training with consumers considered responsible care choices	Assumption that older people have adequate oral healthcare literacy	• Home care clients may unknowingly be making uninformed oral healthcare choices
Cognitive Participation	**Context**	**Mechanism**	**Outcome**
Time 1	Government grant funding provided project resources	Organisational engagement	• Organisational commitment to implement the Better Oral Health in Home Care Model. • Active oral healthcare facilitation
Time 2	Withdrawal of project resources supportive of local and external facilitation	Organisational disengagement	• Loss of organisational commitment • Loss of active oral healthcare facilitation
Collective Action	**Context**	**Mechanism**	**Outcome**
Time 1	Active local and external facilitation	Active participation by staff	• Provision of community aged care prevention and early detection of oral health problems
Time 2	Competing project demands	Adoption of a project mentality	• Reduced staff capacity to engage in the collective action needed to embed the Better Oral Health in Home Care Model
Reflexive Monitoring	**Context**	**Mechanism**	**Outcome**
Time 1	Staff undertaking oral health assessment and reporting of poor oral health	Auditing of oral healthcare	• Staff able to identify clients in need of dental care • Client opportunity to access a priority dental referral pathway • Home Care Standards referral obligations met
Time 2	Oral health assessment and care guidelines removed from organisational documentation	Belief that oral health is not a clinical and/or infection risk	• No monitoring of oral health outcomes • Client opportunity to use priority public dental referral pathway not utilised • Home Care Standards referral obligations not met

Fig. 3. Comparison of the context-mechanism-outcome configurations of the initial program theory of the Better Oral Health in Home Care Model at Time 1 with those of the proposed alternate program theory at Time 2.

introduction of the Better Oral Health in Home Care Model recommendations and guidelines into organisational documentation.

3.1.4. Reflexive monitoring

An oral health assessment tool easily understood by non-clinical care coordinators and oral health reporting guidelines for care workers were introduced to increase staff's ability to identify clients in need of oral health care support and dental referral. This included access to a priority public dental referral pathway that linked well with the aged care provider's Home Care Standards referral obligations (Lewis et al., 2016).

3.2. Alternate program theory

At Time 2, broader changes in the community aged care context were indicative of a more streamlined and competitive market-based aged care sector. Since 2012, the community aged care sector has experienced high consumer demand for Home Care Packages with a rapid increase in the numbers and specialisation of home care and/or home support providers in community aged care. At the same time, there has been a 13% reduction in the estimated size of the community aged care workforce with recruitment of staff in regional and rural areas described as difficult (Mavromaras et al., 2017). Since Time 1, the community aged care workforce has become older with a mean age of 52 years old. National census data also reported that care workers receive less work-related training compared to other occupations working in the community aged care sector (Mavromaras et al., 2017). A forthcoming change, likely to impact on home care compliance obligations, is the introduction of a single set of Aged Care Standards for residential aged care and home care providers (Australian Government Department of Health, 2017a, 2017b). Furthermore, Australia's national oral health plan continues to advocate for a multidisciplinary approach to oral health assessment and support for the maintenance of daily oral care with improved access to timely dental care for older people (National Advisory Committee on Oral Health, 2004; Council of Australian Governments (COAG) Health Council, 2015). It is acknowledged that eligibility for public dental care in Australia stipulates an adult be a holder of a government concession card. In South Australia, a client co-payment is applied for adults with access to priority dental referral available for home care clients of the participating provider, through a South Australian Dental Service funded Community Aged Care Program.

Of the14 participants recruited for this study at Time 2, 12 were staff and two were consumers. Most staff members were female. Staff credentials ranged from certificate III (Aged Care) for care workers and care coordinator through to nursing, social work and business qualifications for clinical, management and corporate staff. Staff participants were generally long-term employees, many of whom had been working for the aged care provider during the implementation of the Better Oral Health in Home Model. Some of them had been involved as project officers and/or members of the project Steering Committee (local facilitators) and were known to the primary researcher (AL), however, no ongoing interaction had taken place between time-points of 1 and 2. The consumer representatives were male with one on a high care level four Home Care Package, and the other receiving low care from the Commonwealth Home Support Programme.

3.2.1. Coherence

High staff turnover was described as a challenge with staff recruitment in regional and rural areas reported as difficult.

> 'The biggest challenge for us would be around staffing, we have huge challenges around getting staff and retaining staff especially in your remote regional area.' (Interview 5)

Staff consistently described oral healthcare as a basic personal care task and referred to it as an expected work-ready skill.

> 'A care worker should know that personal care includes oral health.' (Interview 3)
> 'We assume that the staff that we employ have a set of skills and knowledge that they bring to their roles.' (Interview 10)

No facilitated staff training using the Better Oral Health in Home Care training package had taken place since Time 1, but links to the Better Oral Health in Home Care resources were found on the organisation's intranet.

> 'No, we haven't done anymore oral health training, because we haven't really done a lot of training, we just don't have the money to pay staff to do that.' (Interview 7)

Oral health information was not included in the staff induction nor was it included in mandatory training. Care worker meetings, that usually included some form of training, had been reduced from about five to two times a year. Cost had played a factor in this change. An elective online oral hygiene training program (separate to the Better Oral Health in Home Care training package) had been available, but the organisation had recently stopped funding this. Staff training records indicated that very few staff had participated in this type of training. It was reported that staff were generally unaware of the training resources and/or they could not easily access computers to use it.

> 'A lot of our care staff don't access the intranet, they find it difficult to from home or they can't and most of them don't come into the office or if they do they are only here for a short time. So, they aren't actually able to engage with that sort of stuff.' (Interview 7)

Heightened awareness of the high-risk consequences of poor oral health and the understanding of how the Better Oral Health in Home Care Model was intended to work came from staff who had either participated in the project as local facilitators, attended the project training or held a nursing qualification.

> 'Staff who did the training were quite surprised at the impact that bad oral hygiene could have on somebody's health. They knew it could impact on their health, but they didn't really understand quite how much.' (Interview 8)
> 'The nurses are probably, the only ones that would ask a question about oral health.' (Interview 3)

Clients and their families reported that they did not recall having discussions about oral healthcare with staff nor were they informed that they could access priority dental treatment if they were eligible for public dental care.

> 'My parents are community clients and I'm pretty sure that nobody's ever asked them how they manage their dental health.' (Interview 10)

Furthermore, clients described that more urgent and competing health problems had a higher priority over dental care.

> 'It hasn't been a subject that I've really had come up because that's not where we've had all the problems' . . . no, I haven't had anything.' (Interview 15)

There was also the belief that oral health education should be directed at the consumer, rather than staff, as the client was the one responsible for their care and service choices.

> 'Focus on education for the consumer. Because at the end of the day it's the consumer that has to say, yes, I will pursue this.' (Interview 3)

It appeared that nurses and staff working in respite care were most likely to use the Better Oral Health in Home Care consumer oral health resources (such as bathroom prompts) to educate

clients. Staff from the country site referred to the occasional inclusion of oral health reminders in consumer newsletters. There was also a general assumption that the dental sector was responsible for consumer oral health education.

3.2.2. Cognitive participation

In terms of cognitive participation or engagement, staff appreciated the benefit of having people belonging to the organisation involved in the facilitation of new projects and/or interventions. This in conjunction with corporate and managerial level commitment, were considered to be important elements for the sustainability of project outcomes, rather than, relying on one-off training approaches.

> 'I think you certainly need to have someone probably locally driving it ... You have to have, you know, someone that's passionate and dedicated, but then you have to have someone that's going to continue on with that, with that role.' (Interview 4)

Of the key corporate, managerial and care coordinator staff involved as local facilitators during Time 1, while some had left the organisation, those remaining worked in other positions. None of the remaining staff saw it as their role to continue to facilitate and engage with staff in the operationalization of oral healthcare for clients.

> 'We might do all the work behind the scenes, do the consultation, get them out there, get them endorsed, get them on the internet but we're not really responsible for monitoring the implementation.' (Interview10)

Descriptions of how the Better Oral Health in Home Care Model unfolded in practice between time-points 1 and 2, confirmed that care coordinators were responsible for setting-up client plans and for deciding whether further referrals (such as nursing or dental) were required.

> 'The packages may or may not see a nurse. It is actually the intake team, the service co-ordinators, who will set that up. They have reasonable awareness about things to set up; they know that they can refer the package clients to the dental clinic.' (Interview 3)

Staff repeatedly referred to the consumer as ultimately responsible for their care and service choices.

> 'At the end of the day, community clients are the drivers of their own care packages.' (Interview 10)

3.2.3. Collective action

A consequence of the competitive open-market environment was the pressure on the organisation to be innovative.

> 'We went from sort of cottage industry into being business unit, so we became businesses but now almost in the open-market environment and I don't think anyone's ever had such a massive shift ... So, we've been forced into a model where we're commercialising all of our products and trying to find innovation so that we can sell and, I suppose, exploit the market.' (Interview 1)

Staff provided many examples of projects describing that their attention constantly moved from one project to another.

> 'What happens is there's one project, and everyone is go, go, go. And then the next project comes along and that one sort of slips behind, so it's hard to keep the motivation going right the way through.' (Interview 2)

There was also a general assumption by staff that a project's sustainability was guaranteed when it had been incorporated into organisational documentation (such as policies, guidelines, procedures and planning forms). Once in the documentation system it was described as 'law'.

> 'Sustainability in the longer term ... I think it has to be actually built in to the guidelines and policies and procedures and that way it's sustained through each individual as they do the work.' (Interview 1)

Post-project document review at Time 2, however, found that a streamlining of processes had taken place in the way oral healthcare was assessed, planned and referred.

> 'We're looking at changing all of our processes, adapting it to become more efficient in the way we operate.' (Interview 8)

Assessment documentation incorporating the oral health assessment tool introduced as part of the Better Oral Health in Home Care Model was no longer in use. The aged care provider had decided that this information could be obtained by proxy using an external assessment completed by the government aged care assessors. The rationale given for this was to avoid clients undergoing numerous assessments and repeating information. Staff feedback also indicated that the organisation was no longer paid to undertake assessments.

> 'Because they've already had an assessment through My Aged Care and the regional assessment service, we don't do another assessment when they start with us, we just ask basic questions about their preferences for services and then the review is again very basic questions because we are not funded for that time.' (Interview 7)

As staff did not record dental referral information, it was difficult to ascertain the extent to which care coordinators used the proxy information for the purposes of identifying clients in need of oral health care support and/or dental care.

> 'I know there's been, you know, a few people that have been referred, but actual numbers, no.' (Interview 3)

South Australian Dental Service records, however, indicated minimal referrals had been made under the priority dental care program since Time 1. These referrals were metropolitan-based with the registered nurse as the main referral source. Staff turnover was given as the reason for this citing that new staff members were unaware of this program. Changes made to the client planning documents also showed an absence of oral healthcare prompts to support the planning process. In addition, it was reported that procedures assumed to be work-ready skills have been removed from guidelines and protocols.

> 'There are lots of procedures that we've actually done away with because they are actually quite 'tasky' – things like how to wash somebody in bed. Oral healthcare might be one of those things because we assume that the staff that we employ have a set of skills and knowledge that they bring to their roles.' (Interview 10)

3.2.4. Reflexive monitoring

There was consensus from corporate, managerial and direct care staff that they considered maintaining a client's oral health as very important for an older person's quality of life, general health and wellbeing.

> 'I think it is actually a very critical area that needs to be looked at fiercely because it does affect the, overall the health and wellbeing of the client.' (Interview 5)

In contrast, staff did not consider poor oral health as a clinical and/or an infection risk.

> 'It's personal care. It's not clinical.' (Interview 10)

Furthermore, staff tended not to report oral health problems and/or infections via the risk management system (called Riskman).

> 'It includes things like infections, falls, skin tears, medication incidents, changes in behaviour, those sorts of things. So, we would consider these are outcomes for our clients that we don't

want to have happen. So, we look at those – I look after infections, infection control is my area of moderate expertise. I would look at infections and look for trends and data . . . I cannot really recall seeing mouth infections there.' (Interview 10)

Some staff acknowledged that the forthcoming introduction of new Aged Care Standards would demand more evidence than had been expected in the past, especially with regards to proving the quality of personal care delivery.

'Because the community standards are principles and are really quite vague, and they're really more about access and equity, not so much about service delivery and what does your care plan have in it, and have you met all the hygiene standards and everything else. I'm not quite sure about how we're going to prove we meet those standards.' (Interview 3)

Furthermore, it was identified that the meeting of accreditation standards was a key motivator for managers when it came to identifying items for their continuous improvement plans.

'I think certainly from you know quality improvement point of view, managers and things that can add that to their continuous improvement plans and things like that, and I think it connects to the standards. I think there's certainly a carrot there.' (Interview 2)

4. Discussion

The aim of this study was to evaluate the embedding of sustainable oral healthcare for older people into routine community aged care practice. Sustainability was conceptualised as consisting of three levels of operational outcomes: individual, organisational and community. Normalisation Process Theory core constructs (coherence, cognitive participation, collective action and reflexive monitoring) were applied with Realist Evaluation to investigate how the Better Oral Health in Home Care Model has (or has not) been operationalised as intended by comparing two timeframes: Time 1 (Implementation June 2012–December 2014) and Time 2 (Post-implementation July 2017–July 2018).

At Time 1, a retrospective description of how the Better Oral Health in Home Care Model worked (initial program theory) proposed that Australian Government funding to improve the oral health of people receiving home care created a favourable context in terms of incentive, resources and expertise. Within this favourable context, it was found that an implementation approach guided by the Promoting Action on Research Implementation in Health Services framework, involving multi-level facilitation, was responsive to contextual factors and triggered mechanisms supportive of outcomes such as building the organisational and workforce oral health capacity. This concurs with the findings of the recently revised 'integrated' Promoting Action on Research Implementation in Health Services, identifying facilitation as the key active element supporting an organisation's capacity to successfully implement new innovations (Harvey and Kitson, 2015). Following the withdrawal of multi-level facilitation processes at Time 2, an alternative program theory was identified. Major contextual changes, in the absence of ongoing facilitation, triggered alternative mechanisms that hindered the embedding of sustainable oral healthcare practice. The following interpretation includes metropolitan and country perspectives as little evidence was found to differentiate them.

A lack of staff training in using the Better Oral Health in Home Care resources and a reliance on consumer knowledge was found to contribute to poor coherence. The acceptance of oral healthcare as a basic, personal care task and a work-ready skill made it challenging for staff and older people to conceptualise oral healthcare as a fundamental aspect of care important for infection control and healthy ageing. Furthermore, the internalisation of oral healthcare as a low priority reduced the level of commitment (organisational and individual) needed to build a shared understanding of the benefits of the Better Oral Health in Home Care Model. Operationalisation was found to be dependent on the care coordinator's level of oral health knowledge and facilitation skills. Consumers were considered responsible for their care choices with staff deferring accountability to the dental sector for consumer education. Furthermore, competing project demands and a related project mentality compromised the capacity of staff to collectively embed the Better Oral Health in Home Care Model into routine practice. The streamlining of assessment, planning and referral processes also impeded the contextual integration of oral healthcare into organisational processes. This presented as a conundrum given the assumption that documentation guaranteed sustainability versus the expectation that irrespective of whether it was documented or not, oral healthcare should be provided. With regards to reflexive monitoring, the belief that oral health was not a clinical and/or infection risk contributed to the practice of not auditing or risk managing oral health. Based on these findings, sustainability, in terms of continued oral health benefits for clients, continued use of the Better Oral Health in Home Care Model, and continued workforce capacity, had not been achieved.

Overall this study provides a deeper understanding of how contextual factors influenced the ability of staff to embed sustainable oral healthcare into routine community aged care practice. From the broader perspective of explaining of how sustainability is achieved, these findings suggest that continued internal facilitation is required to maintain the Normalisation Process Theory core constructs and the ongoing activation of mechanisms supportive of sustainable practice. A key learning from this study has been the recognition that the facilitation of supportive capacity building networks must remain in place following project implementation stage of new interventions so that staff are encouraged and supported to fully embed the new practices into routine care. This ongoing facilitative role could be incorporated into organisational research and development activities, safety and quality processes and/or educator input to oversee the ongoing activities of audit, feedback, and reminders upheld with staff education. This supports the proposition that maintaining changes in staff behaviour is more likely to succeed through the Normalisation Process Theory constructs of collective action and reflexive monitoring (Johnson and May, 2015). Lastly, the study's findings also concur with the literature on sustainability, confirming that successful implementation of an intervention at the completion of a project does not necessarily guarantee sustainability. This serves as a reminder that social change is a three-stage process involving implementation, embedding and sustaining (Kwasnicka et al., 2016). Therefore, assessment of sustainability, two or more years following an intervention's implementation, should ideally, be the final step in the life-cycle of all healthcare improvement projects (Wiltsey Stirman et al., 2012).

4.1. Study limitations, challenges and strengths

There are a number of limitations to this study. Firstly, it was restricted to a single case study based on one large aged care provider out of a group that participated in the original Building Better Oral Health Communities Project. Secondly, recruitment of participants was time-consuming with only a small number of respondents agreeing to take part in the study. The small recruitment numbers may have introduced some bias, but the steps taken to maintain data trustworthiness (such as gaining the perspectives from different

levels of staff, review from three independent researchers and an interpretive meeting with staff) were used to counteract this. Thirdly, the study was primarily focused on oral healthcare and did not take into consideration other aspects of care delivery. Despite these limitations the strength of this study is its novel approach in applying Normalisation Process Theory with Realist Evaluation to better understand the multi-level factors influencing sustainability.

5. Conclusion

In conclusion the application of Normalisation Process Theory with Realist Evaluation has provided a deeper explanation of the contextual factors that contributed to the conceptualisation of oral healthcare as a low priority, basic work-ready, personal care task and how this, in turn, hindered the embedding of sustainable oral healthcare into routine community aged care practice. This understanding can be used to better inform the development of strategies, such as multi-level facilitation, needed to navigate contextual barriers so that sustainable practice can be achieved. Furthermore, the identification of positive and negative mechanisms in this study strongly support the supposition that improving oral health for older people has political and policy implications, signifying the need for greater inter-sectorial collaboration involving aged care, vocational healthcare education, the dental sector and consumer advocacy groups.

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Declaration of Conflicting Interests

The key author of this manuscript is an employee of the South Australian Dental Service and was involved as both an implementer and evaluator of the oral health intervention presented in this paper.

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Appendix A. Supplementary data

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