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A framework to guide oral healthcare at long-term care facilities in the eThekwini district

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ABSTRACT

Introduction

Oral healthcare is an important aspect of the general healthcare of individuals residing in long-term care (LTC) facilities. However, it is often neglected in these settings and contributes to oral health disparities and oral diseases among residents. The World Health Organization promotes the reduction of health disparities and diseases through health promotion as an ethical obligation. The utilization of frameworks to promote oral health provides a structured approach to the design, implementation, and evaluation of oral health promotion programs.

Aim and objectives

This study proposed a framework to guide the development, implementation, and review of an oral health promotion intervention, so as to ensure that a systematic and evidence-based approach is used for the delivery of oral health promotion activities.

Methods

The framework comprised three stages: needs analysis, implementation and review of an oral health intervention, which was guided by the Precede-Proceed model and Intervention mapping. The empirical aspect involved a 4-phased mixed method exploratory study, based on action research and the plan-act-observe-reflect cycle, which illustrated how the framework was operationalized.

Results

The oral health intervention indicated positive outcomes with regard to knowledge and attitudes among caregivers.

Conclusion

The framework incorporated the key components that influenced oral health provision at LTC facilities.

Keywords

oral healthcare, conceptual framework, interventions, long-term care facility, oral health promotion

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INTRODUCTION

Oral health is a fundamental part of general health, as it impacts on important daily functions of individuals, such as eating, swallowing, speaking, and smiling, among others.[1] The prevalence of oral disease remains high globally and is associated with increased morbidity and a lower quality of life, especially among vulnerable populations.[1] Institutionalized residents at long-term care (LTC) facilities such as the elderly and frail, abandoned and orphaned children, and people with physical and cognitive limitations, constitute a marginalized and vulnerable population.[2] These individuals are more susceptible to oral diseases than the general public, due to their unmet oral health needs at LTC facilities.[3,4,5,6] Physical, mental, and visual impairments represent challenges faced by residents in performing adequate oral hygiene practices independently and can lead to a deterioration of their oral health and the development of oral diseases.[7] Common oral diseases among residents include periodontal disease, dental caries, and loss of teeth, among many others, which also impact the general health of residents.[5]

Oral hygiene forms part of the package of care that caregivers provide to residents. However, numerous studies have found that inadequate oral health-related knowledge, attitudes, and practices among caregivers, as well as a lack of hands-on skills experience, were significant limiting factors to providing optimal oral healthcare to residents.[5,6,8] Additionally, some LTC facilities lack proper oral healthcare policies and protocols, which contributes to the neglect of oral healthcare provision by caregivers due to high workloads, insufficient time, a view that oral healthcare is an unpleasant task, and inadequate understanding of the importance of oral health among caregivers.[9] The unmet oral health needs of the residents may also be attributed to barriers such as limited access to oral healthcare services, including cost, transport, and lack of awareness among family members and caregivers on the importance of oral hygiene and dental aids.[10]

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In South Africa, inequitable healthcare services remain a major challenge for the country's health system, which further potentiates health disparities, especially among vulnerable populations, such as institutionalized residents.[11] Limited resources and infrastructure, low dentist-to-population ratio, relatively low awareness surrounding oral health, and the lack of adequate access to oral healthcare services, exacerbate the oral disease problem on the heavily burdened public health sector in the country.[12,13] This deprives the institutionalized elderly, disabled, chronically ill, and vulnerable children of crucial oral healthcare services.[12]

De Mello and Erdmann (2007), refer to oral healthcare as an ongoing and dynamic process which recognizes the impact of oral diseases on the various aspects of an individual's life, thereby acknowledging the need to optimize oral health promotion.[4,14] Noting the high incidence of oral diseases among residents in LTC facilities, the unmet need for increased oral healthcare, and the neglected state of oral healthcare in LTC facilities, the need for improvement strategies is critical. Health promotion is a well-recognised strategy for improving the health of a population, by providing individuals with guidelines and tools to increase control over and improve their health and well-being.[15] The main goal of promoting oral health at LTC facilities is to bring about positive changes and prevent ill health, by addressing the broader determinants of oral health, namely social, political, institutional, biological, and environmental factors, among others.[3,15] Hence, the long-term care setting provides an ideal opportunity to provide optimal oral healthcare to socially disadvantaged, and vulnerable individuals.

Healthcare frameworks have been used to promote oral health in hospitals, schools, workplaces, and communities. Frameworks support evidence-based practice, facilitate collaboration, enhance program evaluation, and improve sustainability.[16] Previous studies have proposed frameworks to understand the determinants of oral health to improve access among vulnerable populations through oral health promotion.[4,17] A study conducted by Kumar & Dasu (2019) applied the Spectrum of Prevention framework developed by Cohen and Swift (1999), for improving oral health among older adults.[18] This framework considered the interaction and influence of systems, structures, and individuals to support positive oral health change. Therefore, action and behavioural changes are required on an individual, organizational, physical, administrative, and management level at LTC facilities. In this way, oral health promotion can improve residents' access to oral health services within LTC facilities, and synergize the principles of health promotion.

This article highlights the different components of the framework, theoretical underpinnings, and the use of empirical data to illustrate how the framework was operationalized. The proposed systematic approach to planning and implementing oral health promotion activities is more likely to provide an evidence base for the appropriate use of limited resources.

METHODS

Development of the framework

Based on the Precede-Proceed model, the framework comprised a three-stage plan, which included a needs analysis (Stage 1), implementation of an intervention (Stage 2), and a review of the intervention (Stage 3), illustrated in Figure 1. Consistent with the 'Precede' component of this model, this framework first considered the socio-ecological factors among coordinators and caregivers, as well as administrative and policy factors (Stage 1), to develop an appropriate intervention to improve oral health provision at LTC facilities. The 'Proceed' component involved the implementation of the intervention and identification of desired outcomes through process, impact, and outcome evaluations (Stage 2 and 3).

Empirical data was collected and analyzed to illustrate how the framework was operationalized. For this purpose, participatory action research was utilized in a 4-phased mixed method exploratory study, based on the plan-act-observe-reflect cycle.[19,20] In the planning phase, the researcher initially identified the problem to be addressed and proceeded to collect information through a process called 'reconnaissance'.[21] A literature review was also conducted, which provided a theoretical context to oral health provision at LTC facilities, such as the social justice theory, institutional theory, and theory of self-determination. The planning process facilitated the clarification of research questions, the development of an appropriate research design, and the selection of suitable research methods for data collection, prior to the implementation of the action plan.[19]

The empirical study was conducted at n=7 LTC facilities, of which n=6 were old age homes and n=1 was a children's home. The old age homes provide residential and frail care to independent and dependent elderly residents, whilst the children's home accommodates orphaned, abandoned and vulnerable juvenile population from 2 years to 18 years of age. Study sites were purposively selected from 'eThekwini health and well-being service provider directory 2018' and a website called 'Senior service retirement places' on search engine company Google. The first phase of the 4-phase study involved conducting self-administered questionnaires among n=188 caregivers and n=14 semi-structured interviews with coordinators (managers and nurses). The questionnaire comprised 30 items divided into three sections. The first component included biographical questions pertaining to age, gender, level of education, work experience, and self-reported oral symptoms experienced such as toothache, halitosis, bleeding gums etc. The second component focused on participants' oral health knowledge based on defining dental terms, identifying oral conditions, as well as pathology of oral disease. With regards to oral health practices, questions focused on participant's dental habits, frequency of dental visits, as well as dietary habits. Questions on participant's attitudes were posed in the form of a Likert scale, which elicited responses pertaining to prioritization of oral health practices and training among participants, job satisfaction and barriers encountered in treating residents at long-term care facilities. With regards to the semi-structured interviews with coordinators, open-ended questions were posed to the participants, such as "What oral health initiatives exist at your long-term care facility?" and "Do you have any future oral health plans or interventions in the pipeline?" Participants were given the opportunity to share their experiences and views on oral health education and training for caregivers, support from the private and public dental sectors, existing oral health policies, the feasibility of implementing oral health workshops, and their perception on improving oral health at long-term care facilities. The evidence from the first phase provided empirical data for the need's analysis stage of the framework.

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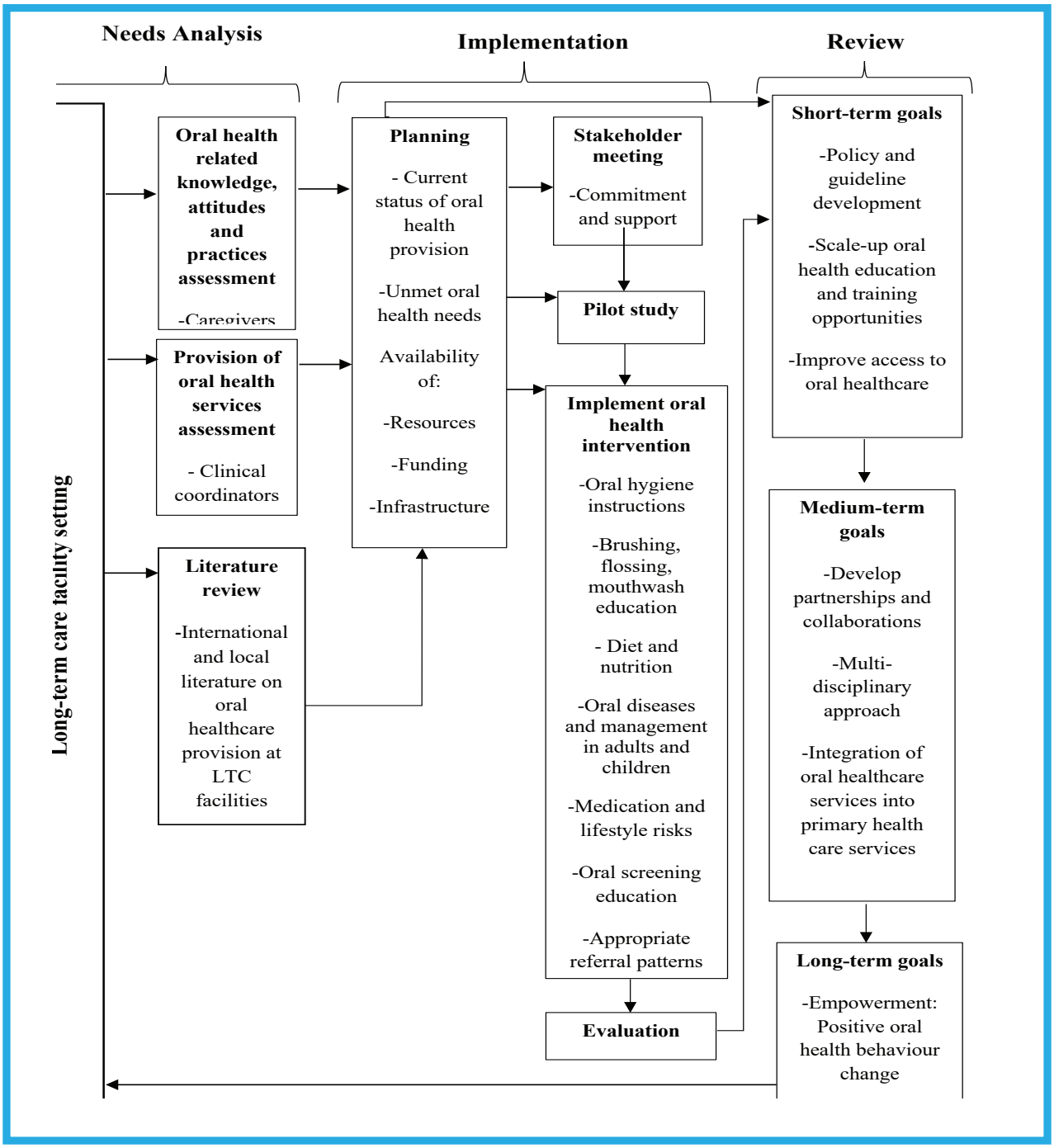
Figure 1. Conceptua framework



The implementation stage of the framework involved the planning of the oral health intervention, the pre/post-test approach, and the evaluation of the intervention. Phase 2 of the study involved conducting a pre-test self-administered questionnaire among n=145 caregivers to gain baseline quantitative data. In conjunction with the data from the needs analysis, the researcher compiled, questioned the evidence, and developed an appropriate action plan. After 4 weeks, the action plan was implemented in the form of an online oral health intervention. Phase three of the study was conducted after 6 months and involved an evaluation of the intervention using a post-test self-administered questionnaire, which was conducted among n=145 caregivers, who participated in the pre-test questionnaire.

Phase 4 of the study, involved observation, an important aspect of action research. Using this process, the researcher was able to develop an evidence-based framework for the provision of oral health at LTC facilities. The process entailed the analysis of evidence, collation of findings from the previous phases of the study, and discussions with co-researchers and colleagues. This allowed for interpretation, answers to research questions, development of recommendations, and sharing of the findings with stakeholders and peers through manuscripts and published articles.[22] In the review stage of the framework, the data was analyzed, and short, medium, and long-term recommendations were made for the provision of oral healthcare at LTC facilities.

Reflection is an important step in action research and is typically applied at the end of the cycle. The researcher engaged in reflection at each step of the study to continuously monitor the progress of the action research. This allowed the researcher to make decisions and revisions to the process

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throughout its implementation, thereby allowing for flexibility and adaption of procedures as required.[23] The reflective process allowed the researcher to review the oral health intervention, determine its effectiveness, and make decisions about possible revisions for future implementations of the intervention. Due to the cyclical nature of action research, another cycle of planning, acting, observing, and reflecting may be necessary to refine the action plan.[20]

Ethical considerations

Ethical clearance was granted by the Biomedical Research Ethics Committee of the University of KwaZulu-Natal. Participants were informed that the study was voluntary and could withdraw at any stage. Written informed consent was subsequently obtained from participants. Questionnaires and interviews were conducted in English after confirming that all the participants were comfortable with the language. Confidentiality and anonymity were maintained throughout the study.

RESULTS

Stage 1: Needs analysis

Studies indicate that a needs analysis is an important step prior to any planned health intervention.[24] In healthcare, a needs analysis represents a systematic method for reviewing the health issues facing a population, leading to agreed priorities and appropriate resource allocation to improve health, and reduce inequalities.[25] This approach is underpinned by the social justice theory on fairness, equal access to health, and social freedoms, with a strong emphasis on upholding human rights and improving the lives of disadvantaged and marginalized populations.[26] Institutionalized residents are recognized as a marginalized population, with unmet oral health needs.[6,27] Additionally, the institutional theory was used to explain how LTC facilities exist as independent organizational structures with an anticipated set of rules, norms, and oral care policies to guide the social behaviour and oral healthcare practices of the caregivers employed there. Given that these residents are unable to practice self-care independently or sometimes with limited ability, the role of the caregiver becomes critical in facilitating and supporting healthcare delivery. However, the attitudes, level of health literacy, and support from the organization will collectively determine the extent to which caregivers are able to meet their mandate of oral healthcare delivery for these residents.[6,27]

Therefore, this component of the study focused on gathering baseline data from caregivers and oral health coordinators at the seven identified facilities. For this purpose, a self-administered questionnaire was used to gather data from n=188 caregivers who provided custodial and healthcare services and had direct contact with the residents. Semi-structured interviews were also conducted among n=14 coordinators, of which n=4 were nurses and n=10 were managers, who were directly involved in the planning and implementation of oral healthcare services. A purposive snowball and criterion sampling technique was utilized to recruit participants.

The results of the current study indicated that coordinators shared challenges in oral health provision at LTC facilities, resulting in limited access to comprehensive oral healthcare services, and unmet needs among residents. These challenges included a lack of comprehensive oral healthcare practices, insufficient oral health prioritization, inadequate support from the dental sector, limited funding for oral health initiatives, and challenges associated with Covid-19.[28]

Coordinators reported that their oral health policies were either poorly formulated or non-existent and that there was no designated budget for oral health education and training of caregivers.[28] As a result of the incomprehensive oral health policies and lack of oral health education and training initiatives at the LTC facilities, the findings of the self-administered questionnaires indicated that caregivers' knowledge and practice were not optimal. Only 8 caregivers (4.3%) comprehensively reported that the cause of tooth decay was multifactorial (poor diet, poor oral hygiene, and causative bacteria), and the majority of caregivers (n =144; 76.6%) reported visiting the dentist only when they had experienced dental pain.[29] Previous studies found that inadequate oral health knowledge among caregivers, is due to insufficient education and training.[27] Similarly, coordinators acknowledged a gap in oral healthcare at LTC facilities, and the need for a scale-up in oral health.[28]

On the other hand, the overall attitudes of the caregivers' were positive, as the majority (n = 173; 92%) were keen to improve their oral health knowledge and skills towards better oral health outcomes for themselves and residents under their care. In keeping with the theory of self-determination, intrinsically motivated behaviour is more likely to produce sustained self-motivated, or self-determined behaviour among the caregivers.[30] Caregivers are thus able to set oral health goals, master their practice, and motivate each other and the residents under their care to practice better oral health habits.[30]. Liu et al. (2017) postulated that good knowledge encourages a positive attitude, which has the potential to lead to better oral health behaviour.[8]

The framework guided the collection of the key findings from the needs analysis i.e. insufficient oral healthcare practices and prioritisation, poor support from the dental sector, as well as limited funding. The framework therefore includes focus areas such as prioritisation, the training needs of caregivers, and the specific type of training required. These findings further demonstrate the importance of the needs analysis, which is invaluable to interventions such as oral healthcare frameworks to improve oral healthcare. The data from the needs analysis could also facilitate the institutions (LTC facilities) to make informed decisions about future oral health training programmes in the district. Long-term care facilities should continuously monitor the social, institutional, and behavioural determinants of oral health, as described in the framework, as well as the oral health status of residents through oral assessments, which may provide relevant and up-to-date data for priority setting, resource allocation, and the planning of oral health education programmes.

Stage 2: Developing the intervention

The next stage of the framework comprised the development of an intervention, which was based on the outcome of the needs analysis. This stage involved setting out clear adoption and implementation outcomes, determining performance objectives for coordinators and caregivers, identifying the determinants of oral health provision, and developing objectives for change. Stakeholders at LTC facilities have a better understanding of the strengths and challenges in the provision of oral health and therefore were best suited to suggest appropriate ways to implement oral

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health promotion strategies, in keeping with the posits of the institutional theory. Engaging with stakeholders at LTC facilities was an iterative process, whereby knowledge and expertise were drawn from different experiences and perspectives, around a common goal, in order to make relevant, transparent, and effective decisions in the planning of the intervention.[31]

The planning of the oral health intervention took into consideration the following factors that arose from the needs analysis i.e. current status of oral health provision, unmet oral health needs, availability of resources, funding, and infrastructure. Theoretical, and evidence-based methods were used to identify the determinants, which focused on an individual level (improving knowledge, attitudes, and skills of caregivers), and organizational level (increasing awareness, knowledge, and addressing attitudes), to create institutional commitment and strong organizational leadership.[32] In order to determine the organizational preparedness, and to influence the organizational level, regular meetings were held with stakeholders and coordinators to ensure proper participation from the LTC facilities.[32]

Coordinators reported that funding for oral health interventions was not permissible as the majority of the LTC facilities were non-profit organizations subsidized by the government. Budgetary allocations were therefore reserved for priority areas of care.[28] Additionally, coordinators indicated that oral health interventions would need to be implemented at suitable times to accommodate caregiving duties, and not compromise resident care.[28]

This research study was the first oral health initiative in the identified facilities, in which coordinators had participated, and were thus enthusiastic and optimistic about improving oral health provision for residents at LTC facilities, supporting the theory of social justice.[28] The participatory engagement with stakeholders and coordinators encouraged discussion regarding priority setting and resource allocation for oral health within the LTC facility setting.[28] Coordinators expressed their commitment to improving oral healthcare at LTC facilities, by offering logistical support for the implementation of the oral health intervention, thereby enhancing organizational preparedness.[28]

A pre-test self-administered questionnaire was distributed among n=145 caregivers employed at the identified LTC facilities, to determine their oral health knowledge and attitudes before receiving the oral health intervention. Four weeks later, an oral health intervention was implemented at each participating LTC facility. The intervention used in this study was an online oral health education and training presentation, which was developed: (1) Based on the comprehensive findings from the current research study which involved caregivers and coordinators, and (2) on oral health guidelines outlined by the World Health Organization.[33] Due to the emergence of the recent global pandemic COVID-19, and strict lockdown protocols, site access was prohibited to the public, as well as the researcher, and thus the online platform was used to deliver the oral health intervention. The online oral health intervention was beneficial as it reduced the logistic burdens of a site visit, time constraints faced by coordinators, physical space to conduct the intervention, and reduced cost and the use of resources.[34] According to Gregory et al. (2018), online education programmes have the ability to increase participant outreach, and balance educational time constraints and clinical responsibilities of the caregivers.[34,35] The use of visual animations in the online oral health intervention enhanced digital story-telling which engaged and motivated the participants to learn new skills and reduce the anxiety associated with a new experience.[36]

Implementation of the intervention

The oral health intervention was presented as a 45-minute PowerPoint ® presentation, which was developed and narrated by the researcher. The online intervention was presented to caregivers with the assistance of their coordinators using a large TV screen in a board room at each respective LTC facility. The presentation was conducted over 2 shifts (day and night), to accommodate the caregivers' duty schedule, and not compromise resident care. The intervention focused on creating an understanding that residents may not be able to perform oral care independently or adequately and thus highlighted the important role caregivers play in maintaining optimal oral hygiene for residents under their care, in keeping with the principle of social justice. In light of the institutional theory, the concept of oral health and prioritization of oral hygiene was emphasized as mandatory norms within LTC facilities, as well as the impact of oral disease on residents' overall quality of life. The online intervention included visual representations of commonly occurring oral diseases and conditions experienced by institutionalized residents (adults and children), as well as treatment, management, and prevention measures. The role of the caregiver in maintaining good diet and nutrition for residents, as well as denture care, was also included. Animated video clips demonstrating feasible brushing and flossing techniques, as well as the use of other dental aids, were detailed in the presentation. Finally, an oral health assessment tool[3] was included, which provided caregivers with a guide on how to perform oral examinations for residents, and time frames for referral for further dental care to the dentist. Participants received toothbrushes, toothpaste, flossing aids, and pamphlets on oral hygiene education to enhance the effectiveness of the online oral health education intervention.

Six months following the oral health intervention, a post-test self-administered questionnaire was distributed among the same caregivers (n=145) who participated in the pre-test questionnaire. The pre/post-test questionnaires were coded to correspond with participating caregivers, who signed the data collection list on completion.

Stage 3: Review of the intervention

The evaluation was used to assess the extent to which the implementation of the intervention fitted within the context, delivered fidelity, and addressed the identified needs.[37] The oral health intervention was evaluated, which allowed the researcher to gauge the level of success of the intervention in achieving the desired outcomes and objectives; refine content, and implement strategies for improvement.[37] The pre/post-intervention evaluation revealed positive changes in caregivers' oral health knowledge.[38] This finding concurs with a similar study which reported improved knowledge among caregivers, following an oral health intervention.[39] Less than half of the caregivers (n=68; 46.9%) in the pre-intervention phase, agreed that loose teeth can sometimes be a sign of gum and bone disease, compared to 89% of caregivers (n=129) in the post-intervention phase who

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agreed with the statement.[38] Additionally, very few caregivers (n=17; 11.7%) in the pre-intervention phase reported that regular flossing was an important part of the oral hygiene regime, and that initial bleeding of the gums was normal, compared with 81 caregivers (55.9%) in the post-intervention phase who agreed.[38]

With regards to caregivers' attitudes, the pre-intervention evaluation revealed that 86.9% of caregivers (n=126) expressed compassion and optimism to improve the oral health status of the residents under their care, whilst 91% of caregivers (n=132) in the post-intervention phase shared the same sentiment.[38] This finding highlights the caregiver's perceived duty to provide equitable oral healthcare services to the residents, thereby upholding social justice. The majority of the caregivers (n=124; 85.5%) in the pre-intervention phase indicated that caregivers should be trained to perform oral screenings and provide oral health education to the residents, compared to almost all participants (n=136; 93.8%) in the post-intervention evaluation phase.[38] Therefore, in keeping with the institutional theory, the incorporation of oral health education and training should be well integrated into oral health policy, as a set guide and norm, thus influencing positive oral health behaviour among caregivers. The evaluation results of the current study, revealed the effectiveness of the intervention, indicating that externally regulated forms of motivation (oral health intervention) may promote short-term positive behaviour change among caregivers. However, continual oral health education and training is necessary as it has a longer-lasting effect on facilitating behavioural maintenance, which is the posits of the self-determination theory.[40]

Short, medium, and long-term goals arose from the review component of the framework. The short-term goals include: developing oral health policy and guidelines on an institutional and national level; a scale-up in oral health education and training opportunities for caregivers, and improved access to oral healthcare services for residents. The medium-term goals include developing partnerships and collaborations, using a multi-disciplinary and sectoral approach, and integrating oral healthcare services into primary healthcare services. The long-term goals are to empower all individuals at LTC facilities towards positive oral health behaviour change, which involves continual monitoring and evaluation, as oral health provision at LTC facilities is dependent on continually changing social, institutional, and behavioural determinants. This process will allow for goal setting and making recommendations to stakeholders towards improved oral health outcomes at LTC facilities.

DISCUSSION

A critique of the framework

The framework took into account the social, economic, organizational, and behavioural factors that impact oral health provision. It thus provides a holistic approach, as it recognizes the importance of oral health as an integral component of overall health.

The needs analysis gathered information on "service readiness," which related to the understanding of the concept of oral health among caregivers and the types of procedures and services being provided; as well as "organizational readiness," which referred to the perceptions of service-specific needs, resources, and infrastructure.[41] An understanding of these factors, assisted in the planning process of the intervention by enhancing the quality of the oral health content, to promote efficient oral health services.

This framework may be applied to settings where resources and funding are scarce. The online oral health intervention negated the costs involved in employing a professional oral health speaker. It further provided a convenient and effective way to deliver oral health promotion, as it limited logistical factors involved in presenting a conventional oral health intervention, and did not interrupt clinical caregiving duties.

This framework may be seen as valuable in informing stakeholders and oral health planners on oral health policy formation, and strategic planning involved in oral health service delivery, which could provide guidance for caregivers within the institution (LTC facility).

The application of this framework may be applied to other residential care environments. Utilization of the settings approach enables this framework to be optimized for specific contextual settings, which can be achieved through modification of the framework's goals, objectives, and strategies. The framework was operationalized through an action research study, which provides flexibility and adaptability to changing circumstances, and thus can be applied to other complex systems where there are multiple variables at play.

Notwithstanding the value of using such an approach for oral health promotion planning, implementation, and review, some limitations were noted, which need to be considered when planning and implementing oral health interventions.

The implementation of new behavioural or social interventions are sometimes met with resistance to change.[42] More research is required to assess the long-term effect of the intervention on cultural and social factors impacting behaviour change among caregivers, coordinators, and stakeholders.

Continuous monitoring and evaluation are necessary to determine the sustainability of the intervention, as social and behavioural interventions greatly depend on service and organizational readiness, sufficient funding and resources, and a supportive staff environment.[41] Therefore, it is important to first identify and address the strengths and deficiencies of the organization (LTC facility) in the planning stages of the intervention, to improve long-term sustainability.[41]

Organizational dysfunction may affect oral health initiative planning. Therefore, assessments may need to be conducted among coordinators, to help diagnose their personal and professional preparedness. Identifying and addressing the organizational problems may foster better preparedness among coordinators for the implementation of oral health interventions.[41]

More research is required to determine the cost-effectiveness of the intervention. Priority setting and resource allocations (for oral health aids, training and education, equipment, staffing, and infrastructure) are necessary, as they impact the equitable distribution and efficiency of oral healthcare services over time.

An evaluation of the oral health status and quality of life among residents may provide valuable epidemiological data,

which will enable the framework to be modified according to the specific oral health needs of the residents.

The framework was applied in selected LTC facilities in the eThekwini district, hence further research is required, where the framework can be applied on a larger or national scale to explore the complex interactions, relationships, and social determinants that influence oral health provision at LTC facilities.

CONCLUSION

The framework provided a systematic, evidence-based approach to the development, implementation, and review of an oral health promotion intervention, to guide oral health provision at LTC facilities in the eThekwini district. The components of this framework considered critical social, behavioural, and organizational factors such as attitudes, preparedness, level of literacy, and support that influence oral health provision at LTC facilities. The framework also assisted in identifying the relevant sectors, the necessary resources, effective strategies, and activities, which may bring about positive oral health behavioural, institutional, and social changes in LTC facilities. The intervention provided a cost-effective, practical, and effective way of delivering oral health promotion, thereby deeming the LTC setting more conducive to promoting oral health and achieving equitable oral health access and services to residents.

Competing interests

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