



GUIDELINES ON HOW TO PROMOTE OPTIMAL ORAL HEALTH FOR FRAIL ELDERLY AS A GERONOM

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<p>Aim: The study seeks to discover the influence optimal oral health care and services have on the frail elderly living in elderly homes. Focus will be based on optimal services rendered by staff in elderly homes</p> <p>Research questions were formulated to guide the research process as follows:</p> <ol style="list-style-type: none"> 1. What is the impact of optimizing oral health services by staff in elderly homes for the elderly in their everyday life? 2. What services and products are needed to promote optimal oral health for the elderly in elderly homes? <p>Method: Literature review and content analysis was used to explore the Scientific and peer reviewed articles.</p> <p>Results: Oral health care for the frail elderly living in elderly homes needs to be given priority. Educating caregivers on oral health issues, access to oral services and devices, collaboration between oral health professionals will bring about a great change</p> <p>Conclusion: Due to lack of optimal regular oral care routine, frequent, supervised practice and training, and lack of optimal toothbrushes, it is a big challenge for care givers to uphold good oral health for the frail elderly in elderly homes, but vital to promote this oral health in order to enhance their health and give them a good quality of life.</p>	
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1 INTRODUCTION

Despite efforts made by promoters of technical devices, supplies and training for staff in elderly homes, the branch of oral health in general is still developing. Oral health care for the elderly living in elderly homes has not been considered as important as other care needs consequently oral health related diseases affect the elderly living in elderly homes hence their quality of life. A good oral health care minimizes healthcare- associated pneumonia amongst elderly in elderly homes resulting to reduced healthcare expenses. (Erika Kullberg et al; 2010)

According to Erika Kullberg et al continuous oral health education will enhance and improve on the oral health condition of the elderly especially those living in elderly homes. To achieve results therefore it is important to assess staff attitudes and perceptions towards oral care in an oral health education program.

Oral health related diseases can be prevented according to Yevlahova et al. 2009. They however confirm the prevalence of oral diseases thus, discrediting any previous preventive measures that could have been taken.

Chung et al (2000) further bring out the problem of Oral health by depicting the deplorable state in which most elderly homes find themselves. They relate this problem to either the limited ability elderly people have to keep a daily oral hygiene routine or to a lesser extend care givers lack of interest commitment to perform oral hygiene care or both.

More so, despite acknowledging responsibility for oral care, care-givers would rather shift the responsibility to the dentists. A third of medical practitioners agreed that they conduct a routine check for the oral cavity.

While only a quarter could recognize the oral cavity as belonging to the body, most care givers, according to the authors supported a more intensified awareness on oral issues in their daily activities and shunned away from the idea of abandoning all oral issues to the resident dentists. (Chung et al. 2000).

Generally, tooth loss, oral diseases, dental caries, xerostoma, oral precancer/cancer etc. stand out as a global problem. Considering the worldwide nature of the problem at hand and its consequences, proponents of oral health are imploring on policy-makers to step in. More action is needed. The World Health Organization (WHO) acknowledges the severity of this problem and urges all countries to implement strategies, policies etc. in order to ameliorate the oral health of elderly in elderly homes. Care-givers should be equipped with both the knowhow and the will to carry out their duties. Finally The World Health Organization (WHO) has created a platform through which oral health experiences from different countries can be shared.

Oral health care education on its own will hardly overcome the hurdles oral health diseases come along with, there are several other factors that need to be considered in order to achieve better results and reduce the prevalence of oral diseases. These factors include: self-care, care of others, community socialization, policies, laws and regulations.

1.1 Motivation

Coming from a culture where the elderly live under the same roof with family members till their dying day, the elderly are treated with much respect, looked upon like an asset in the family. Living under the same roof with their children, grandchildren and even great grandchildren, it was very clear on how they managed their daily activities and life till death, the elderly even resorted to the use of chewing-sticks (traditional tooth brushes) which are gotten from special plants to brush their teeth instead of using a synthetic tooth brush for example as they believed it to be less effective.

Amazing as they did it, I found myself in the Western culture where life is more structured and busy. The elderly living in elderly homes depend on caregivers for their activities of daily living (ADLs) and despite the fact that in recent years there has been an improvement in the oral hygiene care of frail elderly living in elderly homes, it still demands more attention (Heather Frenkel et al, 2008).

One of the very first means of contact to someone is by verbal communication and with an unhealthy, dirty mouth one can imagine the pungent smell that can ooze out of it and how repellant it can be, Therefore it became clear to the author as a gerontology student to try to see how the elderly in elderly homes and those who for one reason or another can't afford to take care of their oral health by themselves could be helped upon.

1.2 Aim and Research Questions

This study seeks to discover the influence of optimal oral health care on the frail elderly living in elderly homes. Attention will be based on the services and care rendered by caregivers, family members and dentist to the elderly not forgetting the elderly themselves. However the main focal point of this study is to improve oral health with the aid of caregivers and optimal devices

A service development combined with Materials and tools needed to ameliorate elderly oral care and management will be reconnoitered through literature reviewed scientific articles. And to get better results the following questions will be answered.

1. What is the impact of optimal oral health services by staff in elderly homes for the elderly in their everyday life?
2. What services and products are needed to promote optimal oral health for the elderly in elderly homes?

1.3 Background

This chapter defines key concepts pertaining to oral health (Oral Health, Oral Hygiene, oral hygiene care, Oral Disease, Gerodontology, and Quality of life), reasons for poor oral health for elderly in elderly home and the effects it has on the elderly living in elderly homes. A run-down of common oral diseases plaguing the elderly in elderly homes is presented under Oral Diseases.

And finally a theoretical Frame work used to guide the author in writing the research.

The oral cavity has always been looked upon as a separate biological structure which found itself on the body but not associated to it with very little attention given to it in any useful manner Locker (1997).

However oral health care for elderly if taken care of even if in a very minimal way can bring about a lot of positive impact on the lives of the elderly living in elderly homes, improve on their quality of life, give them life satisfaction and a physical wellbeing. (S.E Thorne et al; 2001).

Nielsen et al 2012, point out the benefits the frail elderly living in elderly homes will get if they could maintain their natural teeth. According to Nielsen et al most of the frail elderly who still have their natural teeth feel very proud, feel they've achieved a lot and feel more physically comfortable and hence a better quality of life.

Maintaining natural teeth for some elderly gives them a much better feeling with other losses that come with frailty.

The physical and practical health of the oral cavity characterizes a significant component of quality of life prompting the elderly to eat, smile and even socialize (S.E Thorne et al; 2001).

Poor oral health for the elderly generates disease that equally affect the general health of the individual just like any other disease and hence quality of life

1.3.1 Oral Health:

According to Locker (1997), concepts in health and quality of life are generally hard to formulate, due to their vast and changing domain and nature. The definition of health is subject to variation depending on its social, cultural, political and financial milieu. One other factor depicted by the author as a hindrance is the ambiguous nature of the nomenclature or health related terms. Several different names pointing to one phenomenon.

Locker (1997) uses Yewe-Dwyer (1993) definition of Oral Health as such:

“Oral health is a state of the mouth and associated structures where disease is contained, future disease is inhibited, the occlusion is sufficient to masticate food and the teeth are of a socially acceptable appearance”.

While this definition remains valid, Locker pointed out its narrowness. Oral health should not be associated to the lack of disease as conventionally accepted. Also focusing on the mouth alone to define oral health is over focusing. However considering the ambiguous nature of health related terms a succinct focus as employed above is comprehensible.

Alternatively, Dolan proposed a broader in scope definition; depicting oral health as

“A comfortable and functional dentition which allows individuals to continue in their desired social role”.

Gerodontology; is the study of variations in oral tissues connected with ageing (British Society of Gerodontology; 2015)

Oral hygiene

“*the condition or practice of maintaining the tissues and structures of the mouth*” defines oral hygiene by Mosby’s medical dictionary 2009 (In Coker 2013)

Oral Hygiene care (oral care and mouth care); According to Coker et al (2013), oral hygiene care is a mixture of the terms oral care and oral hygiene, defining oral hygiene care as the use of oral hygiene aids to prevent oral diseases and oral related diseases.

The terms oral care and mouth care widely used have yet no common understanding (Coker 2013).

1.3.2 Oral Diseases

Tooth Loss (Edentulism)

Considered as one of the most prevalent amongst the elderly, tooth loss is a global social problem. Apart from natural causes of tooth loss, other habits such as smoking, enhances the chances of losing teeth. Tooth loss and its consequences e.g. reduced masticatory activities and reduction in food choices can eventually lead to poor health in general. (Petersen & Yamamoto, 2005).

Periodontal

This oral disease is a direct result of poor oral hygiene and existence of plaques. This disease is rampant amongst the elderly with the tendency of maintaining natural teeth. As mentioned above education or more precisely its lack is also a major cause of the disease not living out smoking and dental checkups. (Petersen & Yamamoto 2005).

Xerostomia

It is common to have elders complaining about mouth dryness, which is the main cause of acute dental caries. Dryness can also subsequently lead to lack of appetite. Dryness may also result from side effects of certain medications. (Petersen & Yamamoto (2005).

Coronal dental caries and root surface caries

Considered as a global menace amongst the elderly (Johnson 2012). It is related to the lack of both social and behavioral practices as simple as tooth brushing. Lack of education and abuse such as tobacco and sugar may enhance the prevalence of caries. (Petersen & Yamamoto 2005).

1.3.3 Reasons for poor oral health for elderly in elderly homes

Elderly living in elderly homes are greatly dependent functionally on care givers for their daily activities due to their frailty. However oral health care has been recognized to receive less attention (Frenkel et al, 2002).

Care givers may not see the importance of oral health care in holistic care, some of them are lacking the necessary knowledge and skills to perform oral health care for the elderly in elderly homes. Oral health care has been given less priority as other needs are being considered above it.

Heather Frenkel et al still points out to the fact that clients are afraid to request for the oral health care need in order not to appear unappreciative to their caregivers whom they believe are doing more than enough for them.

Also elderly living in elderly homes have access for dentist only in cases where they have a dental problem and on demand. An American study discovered that care givers found the deterioration of oral health for themselves and the elderly as a normal process of ageing while in Western Australia in an elderly home the care givers were aware of the benefits of oral health care but were lacking the oral health care programs (Rabbo et al, 2010).

1.3.4 Consequences of poor oral health care for elderly in elderly homes

Poor oral health care for the elderly in elderly homes leads to the growth of oral bacterial and diseases such as decayed teeth, caries and periodontal diseases which affect taste ability for the elderly living in elderly homes. Reduced capability to identify and differentiate taste qualities deprives some elderly from food consumption, causing weight loss

malnutrition and thus affecting their quality of life. Sufficient food consumption is vital for the elderly in elderly homes to fight diseases and maintain a healthy constitution (Solemdal et al, 2012)

Furthermore poor oral health care for the elderly living in elderly homes leads to denture wearing, coated tongue, and dry mouth, increase of plaque, mucosal inflammation high caries activity and hypo salivation (Solemdal et al, 2012)

Van der Putten et al (2010) in a research study on the impact of nutrient deficiency on periodontal diseases in elderly also realized that a lack of Vitamin C leads to the growth of periodontal diseases.

1.3.5 Theoretical framework

Quality of life according to Locker (2003) will be used as the frame work for this research

While perusing relevant scientific literature the author came across the theory of personality which was deemed constructive for improving on the quality of life and well-being of the elderly, and to a lesser extend to the care-giver. This theory can be employed here alongside concepts of oral health such as health literacy and health education as the basis focus on Care-givers work. Adding multi-professional networking and communication tools gives a complete platform for improving oral health amongst the elderly in elderly homes.

Quality of life

According to Locker (2003), who adopted a definition of quality of life developed by The Center of Health promotion at the University of Toronto, *'Quality of life is concerned with the degree to which a person enjoys the important possibilities of life'*

In a British population research on 65years and older on the prevalence of oral health related impacts and effects on the quality of life, particularly on eating it was noticed that

the oral cavity plays a significant role on the quality of life of the elderly living in elderly homes as they were malnourished.

The oral status of an elderly can influence greatly their way of socialization, appearance, speaking, chewing, and self-esteem. (Sheiham A et al; 2001).

They further explain that successful ageing is associated to upholding a good quality of life.

2 METHODOLOGY

The author used qualitative content analysis which is found to be frequently used in nursing and social studies. According to (Elo & Kangäs 2007), content analysis involves the use of qualitative and or quantitative data either in an inductive or deductive technique. Content analysis will be employed to explore earlier researches based on oral health for the elderly. Data will be summarized, labeled and grouped into Major themes and sub-themes developed from the research questions. Content analysis is a research method for creating replicable and applicable conclusions from text and other significant materials for example works of arts and images to the context of their use. This is so because when techniques are replicable and applicable they are then more reliable, (Krippendorff 2004).

Further explanation by Krippendorff states that content analysis involves a specialized process whereby knowledge is gained and dissociation from the personal authority of the researcher may occur.

2.1 Data collection

Data was collected via Ebsco as the author used remote access to Nelli Portal from home and school. Google Scholar search engine with links to other popular search engines such as Mendeley, returned huge relevant search results, articles that could not be obtained fully via Mendeley were later obtained via other search engines like SciHub.

2.2 Data Search process

Search criteria included keys words like Oral health ‘AND’ Elderly ‘AND’ nursing care. The second search criteria that yielded good articles was used with related words to the study such as Oral ‘AND’ institutionalized elderly. Measuring oral health ‘AND’ Nursing homes ‘AND’ Elderly. Oral diseases ‘AND’ oral hygiene ‘AND’ risk factors. In Google scholar the study topic was written directly as Oral health literacy, Oral health promotion and its effectiveness. The search process was also greatly facilitated by the search of articles using their titles, authors’ names, doi numbers collected from articles the author already had. Also keywords such as gerodontology, gerodontology and oral health, gerodontology and oral hygiene were used.

2.3 Inclusion and Exclusion

According to the Arcada guidelines for thesis writing, reviewed articles have to be peer reviewed, in English, and accessible freely. Besides that articles have to be of relevance to the research at hand. Thus articles that did satisfy the above mentioned conditions were excluded from the study, whereas those that did were considered.

Table 1 will demonstrate the databases where articles were retrieved and the search terms that were used to get materials.

Table 1 A Tabulation of data search processes; databases, keywords, number of articles retrieved and number chosen for the research study.

Database search	Keywords	hits	retrieved articles	chosen articles
EBSCO host	Oral health AND elderly AND nursing care	61	8	2
EBSCO host	Oral health AND institutionalized elderly	33	12	3
EBSCO host	Measuring oral health AND nursing homes AND elderly.	1	1	1
EBSCO host	Oral diseases AND oral hygiene AND risk factors.	12	6	1
Google scholar	Oral health promotion and its effectiveness	277000	4	1
Google Scholar	Oral health literacy	25600	5	1
Schi-hub	Gerontechnology and oral health	12700	6	1
Ebsco	Oral hygiene AND adaptive devices.	2	2	1

Google scholar.	Colaborative oral health education for care givers	33.700	6	1
Mendeley host	Oral hygiene AND elderly people	2861801 7	7	2

Table 2 A Summarized table of the 14 articles used for the content analysis; authors, publication years, titles, the aims and the results

Search Engine	Title	Aim of the article	Results
Google sch. Horowitz et al (2012) Article 1	Oral health literacy: A pathway to reducing oral health disparities in Maryland	The study presents oral literacy as a tool for alleviating health care disparities.	Results concurred with earlier research portraying oral literacy as a most needed ingredient in the solving of oral health related diseases.
Ebsco Yuen (2009) Article 2	Effect of a home telecare program on oral health among adults with tetraplegia: a pilot study	The primary aim was to examine both the short- and long-term effects of an oral home telecare program on improving oral health among adults with tetraplegia.	Participants had a lot of improvement with reduced oral diseases within a period of 6 to 12months.Thus indicating that preventive oral home telecare with repeated oral hygiene

			training in the use of adaptive devices improves oral health adults.
Ebsco Jablonski Rita et al (2009) Article 3	Measuring the oral health of nursing home elders	This article has a twofold aim with the primary testing the capabilities of an elderly home and its staff to accurately measure certain oral health guides. The second establishing the relationship between plagues and dental health.	The environment of the elderly home was deemed conducive for establishing such guidelines. Also research concluded that dentures were more effective in the reduction of dental plagues than natural teeth.
Ebsco K.Giovana et al (2013). Article 4	Factors Related to Oral Health-Related Quality of Life of Independent Brazilian Elderly	The article is a cross sectional study to access factors associated with the impact of oral health on quality of life in a sample of independent Brazilian elderly.	Results proved that clinical, socio demographic and subjective factors do impact negatively on the oral health related quality of life of the elderly. Therefore it is very important for policy makers and health intervention policy makers to consider all these factors

			when planning on oral hygiene care of the elderly.
Mendeley host L.De Visschere et al (2006) Article 5	Oral hygiene of elderly people in long-term care institutions--a cross-sectional study.	The objective of this cross-sectional study was to assess the level of oral hygiene care for the elderly living in elderly homes and to investigate the relationship between institutional and individuals characteristics and the observed oral cleanliness.	Most of the elderly were found to have mostly dentures and very few still had their natural teeth, oral hygiene care was observed to be poor amongst both groups and this was associated with the level of dependency and the management of the elderly home.
Ebsco Morales-Suárez-Varela et al (2011) Article 6	Oral and dental health of non-institutionalized elderly people in Spain.	The aim of the study was to probe the abundance of oral diseases amongst the elderly in a home care setting	The cross-sectional study carried out by the authors revealed as expected an acute prevalence of oral health diseases which is in accordance with previous studies, however several other problems were depicted during the studies which may have occurred as a result of poor oral health.

<p>Google sch.</p> <p>Nielsen et al (2013)</p> <p>Article 7</p>	<p>The impact of frailty on oral care behavior of older people: a qualitative study.</p>	<p>Frailty has been proven to negatively impact oral hygiene care and self-care behaviors of the frail elderly, therefore the author aims to explore how the type and level of frailty affects oral hygiene care and self-care behaviors of the frail elderly</p>	<p>Results showed the elderly needed routine oral hygiene care but they couldn't continue with this because of chronic pains from other health related diseases, low morals and low energy for example, psychological and social barriers were also found to affect oral hygiene care especially when living in elderly homes. Thus support is needed to have the frail elderly achieve oral hygiene care.</p>
<p>Ebsco</p> <p>Nitschke et al., (2010)</p> <p>Article 8</p>	<p>Dental care of frail older people and those caring for them.</p>	<p>The study compares oral hygiene practices of the old and frail to that of their caregivers.</p>	<p>Lack of professional knowledge on oral healthcare from the caregivers was noticed as one of the areas attention should be diverted to in order to</p>

			reduce the prevalence of oral diseases.
Ebsco Petersen, et al (2008) Article 9	The global burden of oral diseases and risks to oral health	The authors present a scenario characterized by the prevalence of oral health related diseases despite tremendous efforts being put in most countries nowadays.	In conclusion, it was acknowledged that poor oral health affects mostly the poor and vulnerable and is a huge problem worldwide.
Ebsco Samson.H (2008) Article 10	Change in oral health status among the institutionalized Norwegian elderly over a period of 16 years.	To check the state of the art of dental health in elderly homes and determine if there has been any changes.	Although tooth loss showed a decline after 16 years, other oral health related diseases such as caries and periodontal disease showed significant increase.
Ebsco Shimazaki.Y et al (2004) Article 11	Relationship between dental care and oral health in institutionalized elderly people in Japan.	The article relates dental care to dental health in elderly homes in Japan through a 6 year follow up and control survey programs.	Results revealed that desire to undergo treatment amongst the elderly reduced with age and also availability of dental care increased chances of treatment.

<p>Mendeley host Montal et al (2006) Article 12</p>	<p>Oral hygiene and the need for treatment of the dependent elderly living in an elderly home</p>	<p>The article has it as aim to assess the oral hygiene and treatment need of a geriatric elderly home in southern France.</p>	<p>The prevalence of edentulism was quiet low, dental hygiene was found to be globally inadequate emphasizing the need for care and help in oral hygiene care procedures for the dependent elderly living in elderly homes.</p>
<p>Google scholar Parsons et al (2012) Article 13</p>	<p>Collaborative oral health education for caregivers in an assisted-living facility</p>	<p>The purpose of this study was to try to implement a collaborative oral health project and then evaluate its effectiveness for givers in an elderly home.</p>	<p>Post treatment scores were found to be significantly higher than pre-treatment scores, thus indicating that collaborative teaching projects was effective, increasing knowledge of care givers regarding oral hygiene care practices on the frail elderly leaving in elderly homes as a positive effect on the oral hygiene care of the elderly was reported from</p>

			the feedback got after the research.
Ebsco van der Putten et al (2013) Article 14	Effectiveness of Supervised Implementation of an oral health care guideline in care homes. a single blended cluster randomized control trail.	The article aims at testing an oral health procedural guideline for improving the state of the art of oral health amongst resident in an elderly home in the Netherlands. An intervention and a control group was employed for the research.	Both groups showed reduction in dental and denture plaques although the intervention group showed a significantly higher reduction.

2.4 Description of materials

Articles were selected so as to meet the growing globalization demands thus, the author reviewed articles emanating from all around the globe. These article with the latest published in 2014 and therefore are up to date and relevant for the purpose of these study. A summarized table of the articles, authors, publication years, titles, the aims and the results are presented in table 2.

2.4.1 Validity and Reliability

According to (LeCompte & Goetz 1982) Reliability explains how and why material collected from several researchers relate to each other. On the other hand validity defines the decree of carefulness accuracy etc. applied while finding solutions to research questions. (Kumar 2011).

Consequently, this research derived from peer reviewed articles is fit to be considered valid and reliable. Furthermore the author made sure the work is consistent.

2.4.2 Ethical consideration

As stipulated in the Arcada guidelines for thesis writing, ethical considerations are highly valued in the healthcare domain and as such the author made it a priority to carefully follow the above mentioned guidelines. Health is extremely sensitive as privacy and security alongside cultural and social values are concerned.

Being a content analysis research, relevant peer reviewed scientific articles considered were reviewed, quoted, and referenced accordingly.

3 RESULTS

The author considered the positive impact of staffs on optimal oral care which may alleviate the effects of poor oral health amongst the elderly.

To answer the research questions this section was sub divided in two sections. The impact of optimal oral health services by staff in elderly homes for elderly in their everyday life.

Meanwhile optimal devices and Human Impact on oral health covers the positive role care-givers and technology play on improving the oral health of the elderly in elderly homes.

3.1 Question 1: What is the impact of optimizing oral health services by staff in elderly homes for elderly in their everyday life?

3.1.1 The need for optimal oral hygiene care.

Considering the importance of the situation at hand, the World Health Organization in its 2008 global report on oral health by Petersen, outlined a set of policies imploring all nations to include them in their respective health policies. These policies not only expose the advantages of good oral health through the reduction of premature mortality and morbidity amongst elders but also set out scientific evidence relating oral health to general health and quality of life. Thus, painting oral health as a vital ingredient in both above mentioned concepts of health. (P.Petersen. 2008). These policies are technically designed to improve oral health in particular and general health in general.

To improve on oral health we need to understand the weaknesses behind the current situation.

Importance of oral health care in care plan;

Montal et al (2006) described a scenario in Southern France, precisely in Montpellier where oral care is excluded from the list of services offered in an elderly home. Consequently the residents of the elderly homes are left to cater for their oral needs. Taking into consideration their frailty the results can be poor. Thus with an oral health care plan included in their daily care there will be an improvement in the oral care of the frail elderly living in elderly homes.

Frailty of the elderly should be considered to enhance oral care.

Oral health is increasingly becoming a primordial issue amongst the elderly people according to Van Der Putten et al (2013).

However, it is famous amongst this age group for many reasons. Due to the difficulties they face in terms of chronic diseases, the elderly require consistent follow up for both prevention and cure of these diseases to gain a better quality of life.

The side effects of poor oral healthcare relates also directly to the psychological and social well-being of the elderly. (K.Giovana et al. 2013).

Social support

Nielsen, D et al (2013), focused their qualitative research on the elderly and their inadequate ability to perform oral self-care due to frailty. Results suggested that though most

elders in elderly homes were in support of the establishment of sustainable oral hygiene practices and thus, boost their self-worth, different aspects of their frailty (M.Morales et al 2011; Samson, 2008;) easily overcame the urge to protect their ego.

These aspects include: chronic pain, low motivation, low energy and psychological and social barriers associated to the fact that the elders live in elderly homes. Lack of support from care-givers and relatives also encourage elders to drop their oral hygiene habits leading consequently to poor oral health, thus with social support oral hygiene care will be better.

Care givers interest and education on oral health care

Samson (2008) attributes deprived oral health in the elderly to most of the factors mention above. However, he further mentioned several factors which were not the centre of focus in the previous article. He associated poor oral health to lack of interest from some care-givers and professionals on one hand and lack of education and sensitization on oral health.Samson (2008) after examining all causes of poor oral health common amongst elders in elderly homes, concluded that care-givers' education on oral hygiene and consistent management of the vocal cavity can significantly improve oral health in elderly homes.

Management of elderly homes

Visschere et al (2006), in their research carried out in Belgium and focusing on the elderly in elderly homes above 75 years of age, associated poor oral health and denture plaques of the elderly to inadequate management of the elderly homes and lack of oral care knowledge of care-givers.

Protruding the oral cavity of some elderly

Some elderly do not appreciate the intrusion into their private space as a result of fear and some of them because of their states can't express the need for oral hygiene care (Shimazaki et al 2004).

Van Der putten et al;(2013) took a more cooperate approach to the causes of poor oral hygiene in elderly homes, they point out the fact that well-structured and education geared

policies on oral health are a necessary foundation for improvement on oral health in elderly homes. Not leaving out a solid political base.

In conclusion focusing on care-givers who have the ability to provide adequate oral hygiene care seems more logical than focusing on the elderly, because the frail elderly needs the care givers support.

3.1.2 The contribution of daily oral hygiene care to oral health

Reduced oral disease and other health complications

K.Giovana et al (2013) add that the effect of neglecting oral health is the development of oral diseases. (Y.Shimazaki et al 2004) also attest that the consequences of poor oral health for the elderly are primarily viewed in oral diseases and complications such as pain, tooth loss, dental and root surface caries, high rates of periodontal diseases, xerostomia and oral precancer/cancer.

Furthermore there is indication that oral diseases and chronic diseases share the same risk factors which by insinuation justifies the connection between poor oral health and poor general health. Periodontal disease have been linked to diabetes mellitus, chronic respiratory diseases and ischemic heart diseases. Partial or complete edentulism is also associated with an increasing risk of ischemic stroke and poor mental health. (Samson 2008, Y.Shimazaki et al 2004) goes ahead to confirm that poor oral health and respiratory diseases are related. Numerous studies have agreed that the reason behind these connections is the frailty of the elderly living in elderly homes. (Samson. H et al.2008).

People move to live permanently in elderly homes because they can no longer function independently. (Y.Shimazaki et al 2004; K.Giovana et al. 2013; Samson. H et al.2008).

Improved nutrition and Immunity

Oral diseases can distress the elderly by affecting chewing and swallowing ability of certain foods therefore leading to undernourishment and weight loss, immune deficiency and health related disorders that can affect health and quality of life of the elderly in elderly homes. (K.Giovana et al 2013). A good oral hygiene care will enhance eating, and improve immunity

Self-esteem and social wellbeing

According to K.Giovana et al. (2013) damaged teeth, shapeless or tooth less mouth have emotional impact. The ability to interact and relate with others is limited due to poor oral health affecting negatively the social aspects of health in elderly hence their quality of life. Poor oral health can also affect people's daily lives, self-esteem and wellbeing as a result of pain experienced, damaged teeth, eating and chewing problems. (Y.Shimazaki et al 2004). However a good oral hygiene according to the authors will bring about positive impacts on the oral health of the elderly, raise the elderly self-esteem and bring about a good spirit of social wellbeing.

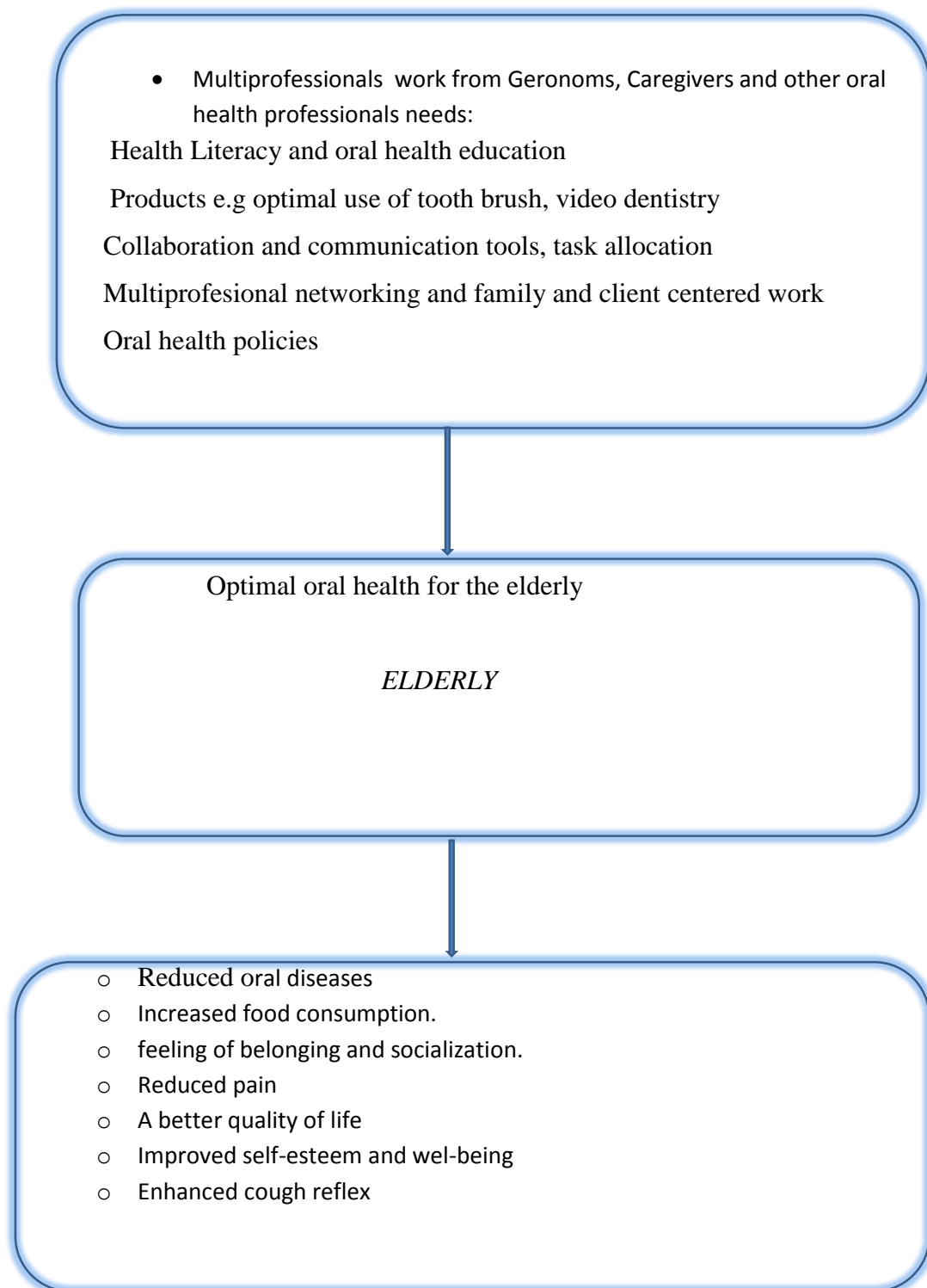


Figure 1 shows the results achieved by care givers and what they need to do to ensure the elderly receive optimal oral health and care.

3.2 Question 2: What services and products are needed to promote optimal oral health for the elderly in elderly homes?

3.2.1 Services and product Impact on optimal Oral Health

P.Petersen et al (2008) stated that, as compared deliberations to the former summit by the WHO on oral health in 2003, the 2007 edition created more awareness to issues related to oral health. Vital branches of the organization were included in drawing strategic plans for preventing chronic oral diseases and maintaining good oral hygiene. The elderly living in elderly homes are faced with very poor oral health (Nitschke et al, 2010).

In this section we consider care-givers and technical devices as tools for the improvement of oral health amongst the elderly in elderly homes.

Care givers active participation and collaboration in oral health care for elderly

In their research Nitschke et al, (2010) carried out a cross-sectional study to portray the impact of care-givers on the oral health of the elderly and frail. Although the level of awareness on oral health was impressive among care-givers, very few could confirm of actually putting this knowledge into practice. Focusing on the care-giver and distributing some of the oral health care responsibilities to some of them could improve their involvement and thus productivity the authors concluded.

A positive attitude and oral health education by care givers

Van Der Putten et al, (2013) using an intervention group from 12 elderly homes in their research in the Netherlands, observed a significant change among the participants of the intervention group who were subject to a controlled guideline on oral health routine practices. In line with P. Petersen et al (2005), they made mention of the attention oral health is presently getting. Attention is drawn at this juncture to the pivotal role care-givers had in controlling the process through their involvement in oral health practices (Van der Putten et al, 2013)

Health literacy in their article was defined by Horowitz & Kleinman, (2012) as:

“The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate oral health decisions” .

Health literacy specifies the diffusion of health information in terms understandable to the lay man and also presses on the importance of policies of oral health and describe care-givers, nurses etc. as indispensable to proper strategic oral health care practices.

Similarly, Jablonski et al (2009), actually tested the impact of educating care-givers on oral health. They suggest that poor oral hygiene is a catalyst for some diseases. Poor oral hygiene relates to systematic disease such as aspiration pneumonia, cardiovascular disease, etc.

Dr. Richard Carmona, A prominent figure in health care in the United States in 2003 in front of a United States Senate Special Committee on Ageing “Ageism in Healthcare: Are Our Nation’s Seniors Receiving Proper Oral Health Care?” stated:

“The burden of oral infections and conditions that affect the mouth, face, and jaw are so broad and extensive that the dentists can’t do it alone.”

Thus, well trained and educated nurses and care-givers from schools with oral hygiene incorporated in their curricula would aid in alleviating the task for dentists. (Jablonski et al; 2009, S.Parsons 2012).

Technology and social networking

In relation to oral health very few relevant material was uncovered on technology while perusing most search engines.

Video conferencing (oral dentistry) by care givers to promote optimal oral health care

The use of oral hygiene devices will enhance and improve oral health of the frail elderly in elderly homes, therefore, teaching care givers to be proficient in using oral care devices and encouraging them to establish regular oral care routine is important and requires frequent, supervised practice

With the growth in Health care technology not forgetting oral health care, oral health care can be provided to the elderly living in elderly homes at a reduced cost due to technological advancement and fast internet connections nowadays.

Care givers could receive video training and monitoring of their activities on oral care, via videoconferencing (that is, teledentistry). This is good as the caregivers do not need to travel distances to acquire this training and they get face to face contact with dental professionals and oral hygienist (HK Yuen,2013).

Good oral health care according to Niesten et al (2013), will be of great benefit to the frail elderly living in an elderly home, and any device or care means the staff needs to be very sensitive to the preferences of the elderly person though and give a chance for discussion and finding the best solution.

Furthermore S.Parsons (2012) did his research on collaborative oral health education for care givers, and found out that this method of oral hygiene practice and training if carried out by care givers and other health care professionals under the supervision of dental professionals will lead to an improvement in oral hygiene care for the elderly, reduce oral diseases and burden and hence a better quality of life for the elderly.

Availability and accessibility of oral hygiene supplies in elderly homes is equally very important, this will make it easier for care givers to carry out their job as less time will be spent looking for oral hygiene care items

Oral infection control will be enhanced by oral hygiene care and just as important as we value other body parts, the mouth should be treated in the same way. A good oral health care reduces pneumonia in elderly homes enhances cough sensitivity and improves swallowing (S.Parsons 2012).

The lack of adequate technology for the improvement of oral health can be compensated with the use of other approaches and strategies, the positive support of care-givers could significantly make up for this lack. (Niesten et al; 2013)

4 DISCUSSIONS

Just like any other health issue oral health care for the elderly should be considered important and more focus given to it to ensure the elderly are free from oral health related diseases and hence improve on their quality of life.

The prevalence of oral diseases is still present in most developed countries according to research thus making oral health amongst the elderly a very important topic to deal with.

More still researches confirm that oral health care for the elderly living in elderly homes is receiving less attention or completely neglected as a result of care givers lack of time, knowledge and the necessary tools to enhance this care, some elderly also resist oral care. (Nitschke et al. 2010, Niesten et al. 2013).

The elderly living in elderly homes may suffered a lot as a result of this poor oral health care. The background of this research makes mention of the oral health related diseases that dependent elderly suffer from as result of poor oral health care (Kirsten Solemdal et al, 2012)

Poor oral health is also being associated to other health related complications, aspiration pneumonia and cardiovascular disease for example. Malnutrition has also been interrelated to poor oral health leading to weigh loss for the elderly living in elderly homes (Jablonski et al, 2009).

On the other hand little care and attention given to the oral health care for the elderly in elderly homes will bring about a marked change and improvement in the general health condition of the elderly as there will be less oral health problems and diseases and hence improve on their quality of life. Strategic interventions, including education, continuous training, use of optimal toothbrush and access to oral services will profit this change.

5 CONCLUSION

Lack of adequate oral health education, practices are the main causes of poor oral health hence oral diseases and not only, amongst elderly living in elderly homes.

Technological devices to help the elderly and caregivers improve on the general situation are still lacking according to research. These devices however will require a very active elderly to profit from.

However, Jablonski et al; 2009) stated that aspirations to give the elderly a good quality of life from optimal oral health and preventing oral diseases has so far failed. Encouraging care givers to make oral care in elderly homes a primordial issue while equipping them with the necessary tools to make their job easier will serve as a great preventive measure against oral health related diseases. These tools include professional collaboration and networking, oral education and training.

From a global point of view, more efforts is needed to make oral health amongst the elderly a corner stone for fighting against diseases the elderly face. The World health organization has been imploring on Governments to implement policies so as to alleviate the situation.

6 FURTHER RESEARCH

Research revealed a lot on oral health care and preventive measures against oral health diseases but evidence supporting these facts have not been clearly defined. Elderly people living in elderly home cannot be socially active and take care of their own dental worries alone considering their frailty, caregivers though equipped with general knowledge on oral health, still lack adequate professionalism and education to handle the task. Research should be geared towards building appropriate models and frameworks where all multi-professionals participate. Also further research should focus more on user friendly devices within gerodontology to be able to maintain, improve and protect the oral health of frail elderly.

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