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PATIENTS' PERCEPTIONS ON FACILITATORS AND BARRIERS OF UTILIZATION OF DENTAL SERVICES: SUGGESTIONS FOR PACIFIC NATIONS

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ABSTRACT:
Oral disease is a worldwide public health issue including Pacific nations. The aim of this study was to review patient's perception on the main factors affecting utilization of dental services among patients and to provide a suggestion for Pacific countries. The literature search was done using Medline, Embase, Scopus, and Proquest databases, and relevant keywords were applied to find studies which have been conducted in the field of dentistry specifically looking at patient's perception on utilization of dental services. All the studies pertaining to the topic, published between 2000 and 2020 in English language were reviewed and the main themes were identified. The results showed that patient's perceptions are primarily based on their experience with dentists and the way services are delivered in the clinical setting. Most patients prefer their dentists to display professionalism and possess good communication and clinical skills. Negative perceptions arise mainly in terms of the cost of dental services, poor accessibility, dental anxiety and fear of pain endured during treatment. This study concluded that there is no research done on factors influencing utilization of dental services in Pacific. Tailored interventions by considering the factors identified in this study may improve oral health among Pacific people.

Keywords: Patients' Perceptions, Facilitators, Barriers, Dental Services, Oral Health, Pacific

INTRODUCTION:

Oral disease affects 3.9 billion people worldwide [1], with untreated dental caries (tooth decay) impacting nearly half of the world's population (44%), making it the most prevalent of all the 291 conditions included in the Global Burden of Disease Study (GBDS) [2]. Oral health has also been identified as a key indicator of overall health, wellbeing and quality of life [3]. Apart from its effects on general and oral health, oral diseases also have huge impacts on people's daily lives and economic development, with the loss of millions of school and work hours yearly around the world [4].

The Pacific region is no exception to this, and the people of this area face oral health problems of varying magnitudes [5]. This is because, industrialization and urbanization of Pacific Island nations, in particular those which lie on trade routes, has brought a transformation in lifestyle, which encompasses a diet high in refined sugar, resulting in deterioration in oral health [6]. The unique environment of the Pacific Islands and its diverse population, with an array of ethnic backgrounds, also poses a complex problem in both collection and interpretation of epidemiological data. As a result, very few oral health studies have been conducted over the years. Most Pacific Island nations have collected some information on dental caries (toothache), but this is inadequate and not done on a regular basis [5]. According to the World Health Organization (WHO), oral health surveys must be conducted every 5 – 6 years in the same community or setting, to help identify changing patterns of disease [7]. Regardless, some of the data available shows the following: high Decayed Missing Filled Teeth (DMFT) found in 12-year-old - Tongan children, in a survey conducted in the year 2000 by the South Pacific Medical Team (SPMT) and Tongan dental team. The survey showed the mean DMFT for boys being 4.40, and girls being 5.81 [8]. The 2017 National Oral Health Survey (NOHS) of Vanuatu highlighted that almost 70% of all children aged 5 -7 years had dental caries (tooth decay) [9]. In addition, just below 69% of adults between 30 – 49 years of age and over 76% of people 60 years or more have decayed, missing or (rarely) filled teeth with a very high caries experience. Lastly, over 50% of adults reported of suffering toothache in the last 12 months and around 25% responded of being in pain just a month ago [9]. The 2004 National Oral Health Survey (NOHS) of Fiji, revealed that 88% of 6 year olds showed signs of dental caries (tooth decay) in their primary teeth. Furthermore, only 4.3% of the study population had healthy periodontal status (gum health). The report also stated, that the periodontal status of the population had remained unchanged in the last 30

years, therefore, periodontal disease continued to be, one of Fiji's biggest public oral health problem [10]. Thus, it could be said that oral diseases are prevalent in the Pacific region, and needs to be addressed through all means. So far, the approach towards addressing any disease has been via preventive and curative intervention. These 2 factors are concerned with the clinician's level of skill and expertise.

An aspect that is now gaining attention globally is patient's perception towards utilization of dental services and factors affecting it. This is because, many factors are responsible for influencing health seeking behaviors and these can be perceived as deterring or enabling professional health care [11]. Research on patient's view point is very important because the healthcare system is moving towards a consumer oriented approach, whereby dentists are seen as service providers and the patients as customers [12]. Assessment of healthcare quality has emerged as a noteworthy matter in the care process and it has been acknowledged that patient feedback is an essential factor of these assessments [13]. While it has been recognized that patients cannot evaluate the medical competency of the dentist, their experience towards the procedure of care accentuates their perception regarding the quality of care and its enhancement [14].

Since no research has been conducted to assess the factors affecting the utilization of dental services in the Pacific; the aim of this study was to identify facilitators and barriers of utilization of dental services and to suggest, Pacific Nations on further research in this area.

METHODOLOGY:

This literature review focused on several aspects related to patient's perception on dental services utilization. Four databases were used to search for publications on relevant studies: Medline, Embase, Scopus, and ProQuest. The keywords used included: (Perceptions OR belief OR Opinions) AND (Dentist* OR "Oral health") AND (Patients OR "Care giver"), AND ("Dental Services" OR "Oral Health"). The focus of the search was studies published between 2000 and 2020 and in English language. The titles of all the studies were scanned by two independent researchers and those not relevant were excluded. The abstracts of the remaining studies were reviewed and the full text of the manuscripts that met the study inclusion criteria were printed for future review and to formulate the themes that are discussed below.

Theme 1 – Dentist Characteristics:

In the last few years, patients have become critical consumers that search for better priced services. Moreover, patients' overall requirements and expectations are higher, which results in greater levels of disappointment when treatments were

not up to their expectations [15]. Dental care is expensive and low income individuals have the perception that dentists are selfish, greedy, and uninterested in public health services [16]. Despite this, patients believe that an "ideal" or excellent dentist should have the following qualities: professionalism, a good communication skill, trust, support, friendliness, and state of the art equipment [15]. According to McKenna, Lillywhite and Maini, "Professionalism" is an image that promotes a successful relationship with the patient and thus enables the foundation of effective patient care [17]. A cross - sectional descriptive study conducted by these authors, on new patients attending an outpatient dental facility in Edinburg, revealed, that majority of the patients would prefer dental professionals to wear a name badge, particularly if it's the first time the patient is seeing the dentist.

In addition, majority of respondents (56%) preferred their dentist to wear safety glasses, and 72% preferred their dentist to wear a mask. Lastly, 62% of the patients felt very strongly on the way dentists would dress, with dental consultants and specialists to wear formal clinical attire and white coat, as it portrayed the qualities of cleanliness, professionalism and authority. Another factor that influences a patient's attitude towards the dentist is the clinicians' age. In regards to patient preference for different age groups in dentists, studies reveal that patients prefer older dentists, as they consider that they have better clinical and interpersonal skills, together with more years of experience than the younger professionals [18]. On the contrary, in a questionnaire survey conducted by Swami et al, involving 161 British participants, it was found that patients have better perceptions of younger dentists, as they use new methods and technology [19].

In some regions, another relevant factor that influences patient's perception is the ethnicity of the dentist. It has been shown that some patients prefer their dentists to be of the same ethnic origin or similar culture, as it improves patient – doctor relationship, and the patients understanding of the reasoning's provided by their dentist [20, 21]. However, other studies conducted show that patients are now more open to getting themselves treated by professionals that come from different ethnic groups [19].

Lastly, since dentists inject drugs and perform invasive surgical procedures, patients have expectations that their dentist is knowledgeable and capable of dealing with medical emergencies [22]. A study done by Vaughan et al [22] showed that 50% of the public would expect dentists and dental surgeries to be required to stock equipment involved in the management of medical emergencies.

The study also noted that patients have a belief that dentists undergo continuing training in medical emergencies.

Theme 2 – Dental Service Characteristics:

Waiting time on health treatment has been reported as one of the factors that increase the level of frustration in patients and is regarded as an obstacle in one's activities [23]. The length of time patients spend in a waiting room has been associated with having negative effect on patient's satisfaction [24-26]. In a quasi-experimental study conducted by Inglehart et al., [24] on 399 adult patients who regularly visited a dental school clinic in United States of America, it was found that letting patients wait for their appointments and not being on time affects their satisfaction negatively. The authors also concluded that longer waiting time not only affects the patient's response, but also lowers the satisfaction of the provider; therefore, longer waiting times affect the dynamics of the patient provider relationship.

A study conducted by Akbar et al., [23] on 114 adult patients in Bantaeng Regency, Indonesia, revealed that first visit patients with a late service provider had worse satisfaction and patient/provider relationship, but overall, there was no significant influence. In cases where patients had made multiple visits to the dentist, they continued to show high satisfaction despite waiting for a long time. Similar results were obtained by Tuominen and Eriksson [27], where it was found that waiting for dental treatment was well tolerated, as long as the waiting time was reasonable.

Cost of services:

Most people do not seek dental care due to the high cost associated with it. In a study conducted by Wallace and MacEntee [28], involving low income earners, dentists and social service providers in Canada, it was found that low income participants along with dentists and other healthcare providers identified the cost of dentistry and the inadequacy or inaccessibility of public insurance schemes as major impediments to dental services for low income people. In a similar study conducted by Kadaluru, Kempraj and Muddaiah [29], involving 246 adults aged 18 -55 attending community outreaches in Bangalore, it was found that 22% of the respondent's stated that high cost of oral health care was one of the major barriers for seeking oral health care. In this matter, public hospitals provide dental services at a lower cost compared to private clinics. As such, many people choose public hospitals over private clinics for their dental needs. According to a study done by Luo, Liu and Wong [30] with 30 participants attending the teaching dental hospital of the University of Hong Kong, cost was mentioned by almost all participants in the consideration of the satisfaction level towards the dental care provided by the hospital. They agreed that the price of the dental care services provided by the hospital was much lower compared with private clinics. Despite the reduced cost in public sector, some individuals still find the cost of dental

treatment as a barrier to accessing dental care. Some parents' voice out that they do not take their children to the dentist as they find it very expensive [31]. Some patients cannot afford treatment options, and they reach a point where their oral health is so compromised that they simply allow their teeth to be extracted/ lost, instead of treating the problem and taking protective measures [16].

Ease of accessibility:

Accessibility in dental care refers to how easily patients can utilize the dental services provided. Research shows that access to general dental services is highly problematic for people and needs to be improved [32]. According to a study done by Marshman et al [33], from a postal survey involving 10864 adults in United Kingdom, it was seen that perceived difficulty accessing a dentist was a predictor of oral health outcomes and influenced dental service utilization indirectly through perceived need. Similarly, another aspect concerning access is the expectations between the providers and recipients of dental services. According to Wallace and MacEntee [34], cognitive and physical disabilities, compounded by substance use and homelessness, can be serious impediments to accessing treatment in the traditional dental practice. In addition, there are also reports that dentists find difficulties managing patients in wheelchairs or long-term care facilities, or who need sedation. Apart from issues in logistics and accessibility, some studies show that the fear of dental treatment and associated anxiety was identified by many low – income participants as reasons for avoiding dentists, even when public health dental benefits were available.

Privacy and Confidentiality:

Dentists must ensure that they perform their duties such that privacy and confidentiality is upheld. When patients attend a dental practice or clinic, they expect that their data or what they regard as private information will be handled with care by those who might get to know some (or all) of that information [35]. However, there are instances when this is not maintained, a study in Brazil showed that although most doctors (91.43%) claimed that the cabinet auxiliary staff has been trained to respect the confidentiality of patient data, 44.29% of those surveyed act otherwise, discussing clinical cases with people outside the dental cabinet [36]. In addition, use of social media is becoming more prevalent amongst clinicians and patients, which can also result in violation of privacy and confidentiality. Thus it is important to ensure that both social media and internet are used appropriately and not result in breach of patient information. An example of a severe privacy and confidentiality breach, involved a nursing student taking the photo of a young pediatric patient when his mother was not present,

and then, without permission, posting it on Facebook [37]. According to Brennan [35], confidentiality is not an optional extra in dental practice, but essential to good patient care and treatment.

Range of treatment/ services provided:

It is important that patients are given all options for their oral health needs; this can be achieved by spending enough time with the patient and communicating. According to Aldosari et al., [38] giving the patients enough time to express their concerns will open a two-way communication that makes patients feel heard and part of the decision-making process. It will not only lead to higher satisfaction but also help the dental staff to meet the patients' needs and expectations. Communication and development of respectful health care relations is also very important. A study done by Sbaraini et al., [39], concerning 16 adult patients in Australia, found that even when patients were uncertain about the value of a recommended treatment, a perception that their dentist cared about their problems persuaded them towards compliance. This suggests that even the most “uncooperative” patient may have the potential to be more cooperative in the context of such a relationship. Furthermore, most patients’ based complaints arise because of an imperfect relationship, further accentuating the importance of communication between professionals and their patients [15].

In hospital based setting, apart from dentists, even dental therapist/ hygienist can provide services to patients such as cleaning, fillings and dental extractions; it is not uncommon to find patients feeling dissatisfied when they are not seen by dentists, but by other dental professional. According to Dyer, Owen and Robinson [40], despite some patients being happy with care provided by therapists/hygienists, some reported negative experiences on being treated by them, which appeared to emerge from a lack of communication both before and during an appointment. According to the authors [40], good communication by a dentist to the patient on the delegation of duties to a therapist/hygienist will reduce dissatisfaction and increase cooperation.

Dental infrastructure and Occupational Health and Safety (OHS):

A dental clinic must be well equipped and safe, as patient safety-related accidents at healthcare facilities range from minor problems to permanent damage or death [41-43]. Most dental services typically are performed on an outpatient basis, but many dental procedures use potentially dangerous drugs and complex equipment [41]. According to a study done by Hiivala et al., [44] which looked at dentistry related complaints from 2000 to 2011 in Finland, it was highlighted that patients can in

many instances assess safety risks related to their own dental care, such as many treatment injuries, poor hygiene or practitioner impairment, fairly well. Furthermore, a cross – sectional - questionnaire – based epidemiological study including 384 patients across 52 dental offices in Romania by Barlean et al., [45], found that majority of patients, especially men and high educated subjects were concerned by the risk to get infected during the dental treatment. In the same time men were more confident in safety measures but women were more active and implicated in assessing the implementation of infection control protocols. In a research done by Aldosari et al., [38], patients from each of Brazil's 16202 oral health teams were interviewed, and it was seen that patients' perception towards the physical environment had a positive association with the experience and the overall satisfaction. Conversely, a worse perception about the physical environment and cleanliness of the dental office may result in a negative view of primary health care, with dissatisfaction as a consequence. Last but not the least, a dental chair in good working condition is, at least, essential for dental care in primary health care. In addition, dental infrastructure and technology can also be a contributor to dental anxiety, which is a serious health issue. In a study conducted by Mak, Wong and Xu [46], 230 dental students of University of Hong Kong and 230 non –dental students from other Hong Kong universities were interviewed regarding dental infrastructure, it was noted that amongst the 230 non-dental students, 42.3% reported that they did not easily adapt to environmental noise and 98% reported that they would feel more comfortable during dental treatment if the volume of the dental drill was lower. 15.5% of the non-dental students did not perceive the sound of the dental drill to be unpleasant, while 25.9% of them regarded it as extremely unpleasant. While these findings involve dental students, similar sentiments may also be experienced by patients.

Waiting area and child friendliness:

Dental fear is a normal emotion, a reaction to one or more specific threatening stimuli in a dental care situation, while dental anxiety refers to a state of uneasiness that something dreadful is going to happen as a result of dental treatment [47]. It has been estimated that about 11% of children and adolescents suffer from dental anxiety [48]. One of the environmental factors that can cause anxiety prior to dental treatment includes the waiting room experience, especially the environment of the waiting room and time spent [49]. In a study conducted by Pandiyan and Hedge [50], 65% of parents agreed that pleasantness of dental setup (color, decoration) and friendliness of staff affects the child's behavior in the dental clinic. Among the results, 80% of the parents claimed that dental setting plays an

important role on child's behavior in the dental clinic. However, in a case control study conducted by Fux et al., [51], involving 122 children in Hadassah University Hospital, Israel, no significant difference was found in the anxiety of children waiting for dental treatment in a multisensory waiting room or conventional waiting room. A quasi-experimental study was conducted by Pati and Nanda involving 158 pediatric patients in United States of America, comparing distraction clinic and non – distraction clinic, to assess if introduction of positive distractions in a waiting area would be associated with any changes in the behavior and activities of waiting pediatric patients [52]. The findings revealed that when the TV was switched on there was 26% increase in distraction. The authors concluded that introduction of distraction conditions was associated with higher calm behavior and less fine and gross movement, suggesting significant calming effects of the distraction conditions. In turn, this suggests that the use of positive distractions can affect the stress and anxiety associated with the waiting experience.

Application for Pacific Nations:

Based on these findings, it can be said that patient's perception can greatly influence the utilization of dental services. Factors that have been found to facilitate the utilization of dental services include dentists who display great professionalism, safe clinical settings, and good dental services in terms of short waiting time and accessibility. On the other hand, dental anxiety and high cost of dental services are barriers for people to access dental care. Overall, the impact of oral diseases in the Pacific cannot be ignored, and Pacific Island Countries (PICs) must conduct oral health surveys in a timely manner to ascertain disease patterns and establish a base line for future comparison. In addition, the Pacific Islanders perception towards these factors must also be investigated. The combination of both these studies will provide the ideal foundation from which oral health policies and strategies can be implemented and enforced. The ultimate goal of oral health surveys and analyzing perception, will be to bring in reduction of oral diseases in the Pacific and to improve the quality of life.

CONCLUSION:

Patient's perception on dental services utilization is influenced by a number of factors that depend on the dentist themselves, the services they provide, and the clinical settings in which these services are delivered. Patients who have poor perception of dentists or unable to access dental care, have poor oral health and consequences of it is irreversible. This literature review, mainly looked at developed countries, since no data or studies were available for Pacific Nations, concerning patient's perceptions. Thus, the aim of

this literature review was to highlight this grey area, and build a foundation on which further research can be conducted by Pacific Nations on this matter. Furthermore, the results of such a research could be used to modify treatment approaches and strategies which will encourage people to seek dental care for improved oral health.

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