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Edentulous Patient Attitude and Psychology

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Certification of the Supervisor

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Dedication

This review is dedicated to my family and friends who supported my journey in dental college.

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List of Abbreviations

abbreviation	meaning
EDP	completely edentulous patient
OVD	occlusal vertical dimension
WTCI	winkel tongue coating index
NHS	national health service
CDP	complete denture

Introduction

Life expectancy has increased worldwide. Physical, mental and social wellbeing of a person are associated with the aging process, which may deteriorate individual's ability to adapt to new things and assimilate new ideas. Impaired manual dexterity, economic dependence upon family members, cognitive deterioration compounded by psychiatric morbidity add to their worsening of oral health conditions. **(Bhochhibhoya, 2019)**

Although the rate of edentulism has gone down considerably, it is estimated that the number of edentulous patients will not decrease. **(Choudhary et al, 2019)**

Edentulism in simple terms is a state of being without any natural teeth in the oral cavity. **(Nand et al, 2022)**

Complete edentulism is the terminal outcome of a multifactorial process which involves removal of all erupted teeth and need preservation of the remnant dento-alveolar structures for reconstructive or replacement therapies. Aging is associated with various physiological and social changes that have tremendous impact on quality of life, levels of self-esteem and satisfaction with life. The social changes comprise isolation, retirement from job and loss of income. Physiological changes that occur with aging process includes loss of hair, loss of teeth and reduction in facial height leading to wrinkling. It is essential to understand the patient's attitudes and the way they react to different situations to gain mutual trust which can influence the outcome of the treatment. **(Bhochhibhoya, 2019)**

Complete dentures are the current common mode of treatment for the completely edentulous patients in order to improve the health with the establishment of effective function. **(Nand et al, 2022)**

The geriatric patient who needs complete dentures has a psychological aspect that needs consideration. Although significant, these aspects may sometimes be ignored or considered irrelevant. **(Mysore et al, 2012)**

An edentulous patient will not get adjusted to just in a few days but takes considerable amount of time and patience to adjust and adapt to a new “bulky foreign element” in the oral cavity. **(Nand et al, 2022)**

Three models of the clinician-patient relationship have been described: (Barber et al, 2016)

- Paternalism (traditionally the clinician makes decisions for the patient)
- Consumerism (primarily based upon patient preferences)
- Shared decision making (whereby a consensus is reached)

Patient satisfaction is currently the decisive factor regarding the overall success of prosthodontic treatment in complete denture wearers, where a denture of poor quality may be well tolerated by one person while a well-made one may result in a failure. **(Choudhary et al, 2019)**

A strong paternalistic decision-making style could leave a dentist vulnerable to the medico-legal challenge of failure to obtain valid consent for treatment. Making judgements purely on technical factors, even if the decision is evidence based, represents a failure to respect the ethical principles of choice and free will, which are central to patients’ autonomy. Shared decision making allows both parties to arrive at a decision through a negotiation. Female doctors show a greater affinity for collaborative models of patient–physician relationship than do their male colleagues. **(Barber et al, 2016)**

Aims of Study

- To view different classification systems for patients based on different psychological traits
- to determine any relationship between the patient's mental attitude with age, sex, or educational qualification

Chapter One: Review of Literature

Chapter One: Review of Literature

Edentulism in simple terms is a state of being without any natural teeth in the oral cavity. Edentulism is a significant public health problem globally due to its high prevalence which is >10% in individuals 50 years and older and related disability. For an individual, it is difficult to live a life without having a set of teeth and this is where complete dentures come into play. Complete dentures are the current common mode of treatment for the completely edentulous patients (EDPs) in order to improve the health with the establishment of effective function. Complete denture therapy brings about impactful outcomes in relation to its aesthetics and maintenance requirements regardless of it being highly associated with lack of confidence and problems related with chewing. Every dentist knows that the complete dentures are a set of prostheses that an EDP will not get adjusted to just in a few days but takes considerable amount of time and patience to adjust and adapt to a new "bulky foreign element" in the oral cavity. **(Nand et al, 2022)**

The success of complete dentures is related to technical procedures, functional factors, aesthetics, biological determinants and psychological factors. The psychological factors include preparedness of the patient, attitude towards dentures, relation and attitude towards dentist, ability and intelligence to learn use of dentures and the patient's personality. The numerous classifications available in literature highlight the depth of study of the psychology of the geriatric denture patient and an effort to understand it to in turn provide better care for the geriatric denture patient. It also reflects the variety and wide variation that is observed in the mental make-up of the geriatric patient. **(Mysore et al, 2012)**

1.1. Ettinger and Beck Classification: (Mysore et al, 2012)

1.1.1. functionally independent elderly: live in the community unassisted

1.1.2. frail elderly: have lost some of their independence, but still live in the community with the help of support services

1.1.3. functionally dependent elderly: unable to live independently in the community

1.2. The M.M. House Classification:

A search of the literature suggests that Dr M. M. House was not the first to describe the mental classification system of denture patients for which he is credited. His contribution appears to be a detailed expansion of the classification and popularization of the system. Neil described the system initially in his textbook *Full Denture Practice*, which was published in 1932. **(Winkler, 2005)**

House's classification basically aided clinician in anticipating patient's various responses to specific denture procedure. House classified patients into 4 types: **(Bhochhibhoya, 2019)**

1.2.1. Philosophical mind. these types of patients are rational, sensible, calm, co-operative and indulgent in every situation. They understand the limitation of denture and the dental procedures. They actively participate in decision making, show keen interest in the treatment planning and comply with clinician's advices. Overall, these individuals are considered to have the best mental attitude and are considered to have a favorable prognosis.

1.2.2. Exacting mind. the exacting patients are methodist, precise, strict, and often make excessive demand. These patients lack intelligence, and have unrealistic expectations from the treatment. They usually have past experience of dental treatment dissatisfaction and often

doubt the capabilities of the dentist. They possess similar characteristic to philosophical mind, but require more patience, aptitude and perseverance from the dentist for successful treatment outcomes. They expect detail explanation of the treatment steps and seek a guarantee of the treatment or remakes at no added cost. Although they have a favorable to questionable prognosis, once satisfied with the treatment an exacting patient, can be clinician's biggest supporter.

1.2.3. Indifferent mind. This patient is apathetic, uninterested and lacks motivation. The patient has managed to survive without denture for long period and are not concerned about their appearance. They usually visit dentist only because of family pressure. The patient fails to show any compliance regarding instructions and doesn't co-operate with the clinician and they are prone to blame the dentist regarding poor health of the patient. Patient education and motivation is essential for stimulating the interests before commencement of treatment. The prognosis for such patient is doubtful or poor.

1.2.4. Hysterical minds are emotionally unstable, excessively apprehensive, easily excitable, easily anxious and have unrealistic expectations. They expect the denture to function and appear like natural teeth. They bear negative attitude towards the treatment, often in poor health, are poorly adjusted, dentophobic and sometimes exacting but with unfounded complaint. They lack eff ort to adapt and often fail to wear denture. The prognosis of treatment is generally unfavorable, hence added professional assistance is mandatory prior to the treatment for behavior modulation.

1.3. Winkler's Classification of the Elderly: (Bhochhibhoya, 2019)

1.3.1. The Hardly Elderly

In modern days, we largely encounter this group of aged individuals who are mentally balanced, well-preserved physically and are not dependent upon family members. They are socially as well as professionally active, adapt very well to their surroundings and easily cope up with age-related changes. They have ability to anticipate these changes and accept them as challenges.

1.3.2. The Senile Aged Syndrome

These elderly individuals are physically and emotionally poor and have very poor resistance to diseases and get stressed very easily. They are usually described as chronically ill, disabled, infirm and truly aged. They have difficulties adapting to the changes around them. They cannot handle daily stresses and are prone to illness. They are usually depressed, often insecure and dependent upon family members.

1.3.3. The Between Group

The third group comprises of the individuals who are in between the aforementioned two extremes.

1.4. Heartwell's Classifi cation of Mental Attitude: (Bhochhibhoya, 2019)

1.4.1. The Realists

The realists are similar to Philosophical and Exacting type, who are co-operative and age graciously, have pride in their appearance. They are obedient and follow instructions, practice good oral hygiene and accept proper diet.

1.4.2. The Resenters

The Resenters are the indifferent and hysterical types. They resent and resist ageing and often become psychologically involved and do not follow instructions, neglect oral care and do not seek dental treatment.

1.4.3. The Resigned

The Resigned vary in emotional and systemic status. They show passive submission, which often does not result in good prosthodontic results and is often frustrating to all involved.

1.5. Sharry's Classification: (Bhochhibhoya, 2019)

1.5.1. Tolbuds

60% of the patients fall into this category. These patients can tolerate their dentures to a great extent. This group is similar to the Philosophical mind.

1.5.2. Tolads

These patients tolerate the prosthesis with some degree of adjustment. They comprise 35% of the patients. This group is similar to Indifferent /Hysterical mind.

1.5.3. Toln

These patients can tolerate nothing. They comprise 5% of the denture patients. This group is similar to Exacting mind.

1.6. Gamer Classification: (Bhochhibhoya, 2019)

Unlike House classification which includes only dentist's attitude as defining factor of patient's attitude, Gamer classification is based on two factors:

1. Level of Patient's engagement to dentist and treatment procedure along a continuum from totally engaged (++++) to disengaged (+).

2. Patient’s willingness level to trust dentist along a continuum from willingness to submit to dentist’s recommendation without second thought (++++) to intense reluctance to do anything the dentist recommends.

*Table 1.1 Gamer's classification of complete denture patient's mental attitude (**Bhochhibhoya, 2019**)*

patient type	engagement	willingness to submit
ideal	+++ "I see you as a professional who is in a position to help me, and willingly, I accept you in that capacity"	+++ "What you say makes sense, but I would like some questions being answered"
submitter	++++ "You are the best dentist I have ever had. No, you are the best dentist around. I admire you, idealize you, and think of you in the most glowing terms"	++++ "You know everything and will never make an error. I will submit to whatever you suggest without question"
reluctant	++ "Please don't take this personally, but I don't think you, or any other dentist, is going to be able to help me."	++ "It isn't you that I distrust, but my destiny. Nothing ever works out in my life. Therefore, I will reluctantly follow your instructions, but I doubt this will work."
indifferent	+ "I wouldm't even give you a second thought"	+ "You are dentist like any dentist, what does it matter whom I see. I will listen and follow your instuctions, I guess, for now."
resistant	++++ "You, authority-types, are all the same. You excpect us patients to just accept what you say. If you think I am one of those patients, you are sadly mistaken. Prepare to be challenged."	+ "You are crazy if you think I will do just what you say. I need to grill you to determine if you are not a charlatan."

1.7. Ideal Dental Patient: (Bhochhibhoya, 2019)

According to O' Shea, an ideal dental patient is compliant, sophisticated and responsive. Winkler has described four traits that determine the ideal patient's response:

1. Realizes the need for the prosthetic treatment
2. Wants the prosthesis
3. Accepts the prosthesis and
4. Attempts to use the prosthesis

This corresponds to the Philosophical Mind of the House classification. The so-called ideal psychological profile, though rare, is often desired by most dentists as it provides the greatest chance of success.

1.8. Other classifications: (Bhochhibhoya, 2019)

1.8.1. Cooperative

They are open-minded and comply with the clinician's suggestions. Although, they may or may not recognize the need for dentures, denture procedures can be explained with very little eff ort and they are very cooperative.

1.8.2. Apprehensive

They appreciate the need of denture fabrication, but they bear some irritational problem which cannot be overcome by regular clarification. They are of different types.

1.8.2.1. Anxious

The patients are anxious and upset about the uncertainties of dentures and they often put themselves into a neurotic state.

1.8.2.2. Frightened

They will have unwanted fear about the dentures.

1.8.2.3. Obsessive or exacting

These patients have exacting mind and strongly express their desires and expected outcomes and try to guide the dentist regarding how to proceed. They must be handled firmly and tactfully.

1.8.2.4. Chronic complainers

They are endorsed with the habit of fault finding and are dissatisfied. The best way to tackle such patient is to appreciate their engagement in treatment planning and incorporating as many of their ideas as possible during denture construction.

1.8.2.5. Self-conscious

They are very apprehensive regarding their appearance. It is prudent to provide reassurance to such patients and agree participation as far as feasible in order to establish some responsibility in the final outcome.

1.8.3. Uncooperative

They have negative attitude towards treatment and do not feel a need for dentures. They constitute an extremely difficult group of patients to handle.

Many geriatric patients are able to surmount the limitation of denture and develop skills and attitude to function well with dentures. However, some patients tragically fail to cope with this situation and are classed as "Maladaptive." Friedman et al. have described three classes of maladaptive responses to complete dentures.

- Class 1: Patients who can adapt physically but not emotionally
- Class 2: Patients who cannot adapt physically or emotionally

- Class 3: Patients who cannot and do not wear dentures, who are chronically depressed, and who isolate themselves from society

1.9. Understanding the aged:

No matter how the patients are classified, the characteristic they all have in common is tooth loss. Tooth loss brings about considerable changes in the psychology of patients. Psychological assessment of the patient becomes essential because the success of the treatment depends on the expectations and the self-concept of the patient. the emotional effects related to tooth loss ran parallel with the five stages of bereavement, i.e. denial, anger, depression, bargaining and acceptance. **(Mysore et al, 2012)**

In patients who had failed to reach the final stage of bereavement, the following emotional responses were noted: **(Mysore et al, 2012)**

- lack of acceptance
- diminished self-confidence
- difficulty in adjusting to a change in appearance and self-image
- treating the subject of tooth loss as a taboo topic
- secrecy or an attempt to hide the edentulousness
- prosthodontic privacy or a fear of removing the dentures
- behavior change
- feeling of having aged prematurely
- lack of preparation to face the tooth loss

An important factor is the inherent differences between young and old patients. Older patients are behaviorally different when compared to younger patients. They are more skeptical, demanding and at times quite a challenge to handle. Aged patients rarely expect to see with an artificial eye or to have natural use

of an artificial hand or leg, yet they frequently expect artificial teeth to duplicate natural teeth in form and function. Many of them have a tendency to exaggerate their problems, and such situations require the dentist to have a lot of patience and understanding. **(Mysore et al, 2012)**

Elderly people develop fixed habits and ideas and do not adapt readily to change in their mode of life. They tend to endure increasing physical discomfort rather than to make an effort to see a doctor for the early treatment of an ailment that may become serious. **(Jamieson, 1958)**

Most geriatric patients come from an age, where speaking up is considered ungrateful and critical, and an expression of emotions is considered as a sign of poor self-control. Most patients are not familiar with the concept of preventive treatment, being used to curative treatment only. Lower educational achievement is also a factor that inhibits effective communication. Patients' attitudes are influenced by prior dental experience, the importance of dentistry (from the patient's point of view) and dental awareness. **(Mysore et al, 2012)**

Researchers have shown that older people take more time to process new information, and they need a slower pace of instruction and more time to process new information. Another deterrent to successful communication with older patients is the normal, age-related decline in sensory processes. As patients get older, they cannot see, hear, touch, taste or smell as well as they did when they were young. Depressed patients and those suffering from hypochondria focus on the body; thus, they will be more likely to respond to, or report as, pain even minor non-pain sensations such as vibration. **(Giddon et al, 1980)**

As senescence progresses, neuromuscular coordination is diminished which causes difficulties in mastication, swallowing, and speaking. Physiological, social

and psychological changes deteriorate individual's ability to readily adapt to changes in the mode of life. **(Bhochhibhoya, 2019)**

Missing anterior teeth is fairly common and the anterior zone is most demanding from an aesthetic, functional, psychosocial and phonetic perspective **(Chen et al, 2012)**

In explaining the psychology of the dentally phobic geriatric patient, Epstein states that the oral cavity is often experienced by the patient as the point wherein the dentist 'trespasses' into the patient's body. **(Epstein, 1988)**

1.10. Influence of personality:

Type A personalities lead high stress lives, whereas type B personalities are relaxed and stress free. Type AB personalities are located between these two extreme groups. Patients with personality Type A exhibited the lowest levels of satisfaction with their dentures with regard to aesthetics, speaking ability and masticatory function. **(Ozdemir et al, 2006)**

It is concluded that personality traits affect patients' acceptance of a complete denture. Patients with a high score on neuroticism were less satisfied with their original dentures and after relining and an increase in the OVD compared with patients with an average score on that trait. A high psychoticism score was found to be related to patients' dissatisfaction after restoration of the OVD. **(Fouda et al, 2014)**

Knowing what to expect when treating a geriatric edentulous patient puts the dentist at a distinct advantage as a treatment plan can be formulated accordingly **(Mysore et al, 2012)**

Compliance with postoperative recommendations and prescriptions is highly dependent on the patient' psychological type. The level of oral hygiene is an important factor of successful treatment. Food debris, plaque accumulation, and marginal bone loss have been reported to be interrelated and have influence on implant stability rate. We found philosophical and exacting-mind patients to have significantly higher oral hygiene level (low values of the WTCI); however, indifferent and hysterical patients demonstrated opposite results which may lead to dissatisfactory outcomes in long-term observation. This confirmed the fact that such patients required additional motivation and explanation through the improvement of communication skills and dentist-patient collaboration. **(Chen et al, 2012)**

1.11. Patient behavior towards the dentist:

The patient may have the expectation that the dentist will take care of him and be gentle if he defers all decisions to the dentist. At the other end of the spectrum, a patient may feel that submission to an authority figure is a sign of weakness. As a result, he may resist anyone who displays authority. **(Lefer et al, 1962)**

In a study conducted on the dentist patient interaction, patients treated by high authoritarian dentists were less satisfied than those treated by low authoritarian dentists. **(Hirsch et al, 1973)**

More attention must be given to training dental students in the education and motivation of patients regarding denture care and maintenance. **(Shigli et al, 2015)**

A common preconception is that females have more critical oral demands and are more concerned about their dental status. Males are less demanding with regard to appearance and performance because of the nature of their social life **(Chen et al, 2012)**

Better treatment can be made possible for the patients while taking their desires into consideration. **(Jambi et al, 2021)**

Patience and empathy are necessary to tactfully deal with the psychological and emotional factors involved in the treatment of the elderly patient. **(Bhochhibhoya, 2019)**

The general consensus supporting shared decision making as an approach to decision making is encouraging

No gender differences being reported in the attitudes of dentists towards decision making is also encouraging

Inform undergraduate and dental foundation program curriculum development in patient communication and the behavioral sciences

The dental foundation training curriculum states the ability to "Demonstrate effective and ethical decision making" as one of the major competencies required as part of the professionalism domain. As most dentists considered their patients to be satisfied with the decision-making process, a high level of confidence in discussing treatment options is suggested. Undergraduate students' confidence in dentist–patient interactions has been shown to be related to how well students felt they were taught and how often they encountered the situation. One assumption that has been made is that participants have indeed had adequate training in these skills, and that they have treated a sufficient number of edentulous patients throughout their undergraduate career in order to form these opinions. A minority of dentists indicated that their patients were of neutral opinion or dissatisfied with the decision-making process. This could be due to a lack of confidence in complete denture techniques, or it could relate to the lack of routine NHS funding for implant retained prostheses in primary and secondary care. For those unable to afford implants in the independent

sector, some edentulous patients may, unfortunately, have no choice at all. **(Barber et al, 2016)**

1.12. Patient's response to form and function of dentures:

Elderly females are less satisfied with conventional dentures than elderly males with regard to aesthetics and ability to chew. **(Pan et al, 2008)**

More women complained about the appearance of their dentures, while more men had objections regarding mastication. **(Langer et al, 1961)**

Patient's preference of tooth arrangement (aesthetics) using three types of set-ups, i.e. natural, supernormal and denture look. The natural look was a standard tooth arrangement, while the supernormal and denture look were with larger and smaller molds of teeth, respectively. The results showed that a natural look was chosen by 55% of the patients, whereas the other 45% chose set-ups that were marked deviations from the anatomical averages (either supernormal or denture look). **(Waliszewski et al, 2006)**

EDPs' perception on care and maintenance of CDP was moderate based on the post-denture insertion advices that were received which helped the EDPs in attaining a broader and better understanding of CDP and the level of expectations **(Nand et al, 2022)**

1.13. Adaptation to dentures:

The popular belief that patients adapt better to duplicated dentures than new ones is unfounded. **(Anderson, 1988)**

In comparing the better technique for denture construction, the following observations are made **(Ellis et al, 2007)**

(i) After delivery, the edentulous patients who received complete dentures using either conventional or duplication techniques showed similar improvements in terms of overall patient satisfaction and oral health-related quality of life

(ii) Patients' reported satisfaction with their dentures and the impact dentures had on their quality of life might not be useful measures for determining the most appropriate technique for providing new dentures.

Complete denture wearers should be educated regarding prostheses care and maintenance to ensure health and function of the supporting structures. **(Shigli et al, 2015)**

Getting no complaints regarding CDP from EDPs is something which may be impossible as every individual has a different level of adaptation to its CDP **(Nand et al, 2022)**

Chapter Two: Conclusion

Chapter Two: Conclusion

- There are multiple systems aiming to classify patient's psychology depending on varying factors
- It is of importance to suit the prosthetic appliance to the patient's desires
- The best type of dentist-patient relation is sharing of responsibility for final restoration
- More attention should be paid to enhance the method of interaction between dental students and patients

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