DOI: 10.7860/JCDR/2025/73780.20976

Original Article

Dentistry Section

Evaluating the Co-relationship between Patient Mindfulness and Dental Treatment Satisfaction: A Cross-sectional Study

SEEMA SATHE[1], KHUSHBU NIMISH DOSHI[2], ANJALI BHOYAR[3], TANVI JAISWAL[4], MITHILESH M DHAMANDE[5], RAJANIKANTH KAMBALA[6], ASHIKA SINGHANIA[7]

ABSTRACT

Introduction: There is a longstanding belief that the quality of mindfulness contributes to a person's enhanced well-being. The concept of mindfulness has gained increasing attention in healthcare settings, including dentistry, as a potential factor influencing patient experiences and outcomes. The present study aimed to explore how mindfulness influences dental treatment satisfaction, as psychological factors such as anxiety significantly impact patient experiences. Understanding this correlation could lead to better strategies for reducing dental anxiety, improving patient satisfaction and enhancing overall treatment outcomes in dental care.

Aim: To evaluate the correlation between patient mindfulness and dental treatment satisfaction.

Materials and Methods: This research was a cross-sectional, questionnaire-based study with a sample size of 303 patients selected from the Outpatient Department (OPD) of the Department of Prosthodontics and Crown and Bridge at Sharad Pawar Dental College and Hospital, Wardha, Maharashtra, India, from June 2023 to November 2023. A questionnaire was used to assess patient mindfulness as well as their satisfaction with various aspects of treatment. The Mindful Attention Awareness Scale (MAAS) questionnaire was distributed and completed by the patients prior to treatment and a single evaluator assessed the responses without knowing the treatment status of the patients. The patients then underwent the treatment for which they had visited the hospital. Upon completion of the treatment, the Patient Satisfaction Questionnaire (PSQ) was distributed and filled out by the patients. This was assessed using the Likert scale. A correlative evaluation was then conducted after assessing the individual scores on the questionnaires using Pearson's Correlation Coefficient.

Results: Using Pearson's correlation coefficient, a positive correlation was found between the scores of the MAAS and the PSQ ($r=0.347$, $p<0.01$). This indicates that as the MAAS score of the patient increases, the PSQ score also increases.

Conclusion: The evaluation of the correlation between patient mindfulness and dental treatment satisfaction indicates that higher levels of mindfulness are associated with increased satisfaction during dental procedures. This relationship suggests that mindfulness may enhance patients' overall experiences.

Keywords: Anxiety, Fear, Patient satisfaction

INTRODUCTION

Evidence-based dentistry is the practice of applying the best available scientific results to guide clinical management. Patient-evaluated dentistry can be defined as the practice of applying subjective data reported by patients to guide management [1]. In clinical practice, it can be helpful to measure mindfulness because an increase in mindfulness is related to a decrease in distress and other psychological symptoms [2]. Numerous traditions in philosophy, spirituality and psychology emphasise the role that consciousness plays in preserving and improving well-being [3]. Mindfulness can be defined as the quality or state of being conscious or aware of something. Nyanaponika Thera, in 1972, defined mindfulness as "the clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception." Hanh, in 1976, similarly described mindfulness as "keeping one's consciousness alive to the present reality." According to recent studies, cultivating mindfulness through training has a number of positive benefits for well-being [4,5].

Being mindful is, by nature, a condition of consciousness [6]. Although human beings are endowed with attention and consciousness to current experiences and events, these attributes can vary greatly, ranging from high levels of clarity and sensitivity to low levels, such as in automatic, mindless, habitual, or muted cognition or action. This implies that there are intra-individual differences in mindfulness, as well as the possibility that people vary in how frequently they utilise attention and awareness due to innate talent, discipline, or desire. Thus, the present study explores mindfulness as a trait that differs among individuals and examines the importance of these variations in relation to patient treatment satisfaction. Since patient satisfaction can be viewed as a result of dental treatment in addition to clinical outcomes, it is essential for assessing the general standard of care and, consequently, for the development of healthcare services [7].

Patient satisfaction data can be collected in two ways: quantitatively and qualitatively. Numerous quantitative questionnaires have been developed in the dental field to measure patient satisfaction. These include the 31-item Australian Dental Satisfaction Scale (DSS), the 10-item Dental Visit Satisfaction Scale (DVSS), the 19-item Dental Satisfaction Questionnaire (DSQ) and the 22-item Scale for Measuring Consumer Perception of Service Quality (SERVQUAL) [8]. Attempts to understand or predict patient behaviour may benefit from knowing how satisfied patients are with their dental care [9]. In the present research, a validated PSQ [7] was used, which was compared with the MAAS.

The MAAS [4] is widely regarded as the most popular instrument for assessing mindfulness. Since its introduction in 2003, the MAAS has been extensively validated and shown to be effective across diverse age groups and cultural contexts. Its versatility has made it a valuable tool in various research fields, particularly those focused on consciousness and self-determination theory. The MAAS evaluates an individual's level of mindfulness by measuring their attention and awareness of present experiences. This assessment tool has proven beneficial in understanding how mindfulness impacts mental

health and well-being. The scale's ability to capture the essence of mindfulness has helped researchers explore its role in reducing negative affective symptoms and enhancing psychological resilience. Within the framework of self-determination theory, the MAAS provides a means to examine how mindfulness supports intrinsic motivation and personal growth. By fostering a non judgemental awareness of the present moment, mindfulness helps individuals connect with their inner values and aspirations, promoting a sense of autonomy and self-fulfillment.

Since its inception, the field of mindfulness research has seen significant advancements, largely due to tools like the MAAS. Researchers have expanded their understanding of how mindfulness can be integrated into therapeutic practices, educational curricula and workplace wellness programs. The continuous development and application of the MAAS have contributed to a growing body of evidence supporting the benefits of mindfulness for mental health and well-being.

Previous research on mindfulness has primarily focused on its psychological benefits, including stress reduction, emotional regulation and overall well-being. Studies have demonstrated that mindfulness practices can lead to enhanced self-awareness and improved emotional states, which are crucial for patient satisfaction in healthcare [4,10]. Despite the growing body of evidence supporting the positive impacts of mindfulness, there remains a significant gap in the literature regarding its specific correlation with patient satisfaction in dental care. While some studies [11,12] have explored the general benefits of mindfulness in healthcare, few [13,14] have directly examined how mindfulness influences patients' perceptions of their dental experiences. This lack of targeted research limits the authors understanding of how cultivating mindfulness could enhance patient satisfaction and treatment outcomes in dental settings. Addressing this gap could provide valuable insights for practitioners aiming to improve patient care through mindfulness-based approaches.

The need for the present study arises from the increasing recognition of mindfulness as a beneficial practice in healthcare, particularly in dentistry, where patient anxiety and dissatisfaction can significantly impact treatment outcomes. Previous research has demonstrated that mindfulness interventions can reduce anxiety and enhance overall well-being; yet, there remains a lack of focused studies examining the direct correlation between patient mindfulness and satisfaction specifically within dental treatment contexts. The novelty of the present study lies in its targeted exploration of how mindfulness influences patient experiences in dental settings, an area that has not been extensively investigated. While existing literature highlights the positive effects of mindfulness on general health and well-being [10,14], some have addressed its potential role in improving patient satisfaction during dental procedures [12]. By bridging this gap, the study aimed to provide valuable insights that could inform the development of mindfulness-based interventions tailored to enhance patient experiences and satisfaction in dentistry.

MATERIALS AND METHODS

The present is a cross-sectional, questionnaire-based study conducted in the Department of Prosthodontics, Crown and Bridge at Sharad Pawar Dental College and Hospital, Wardha, Maharashtra, India from June 2023 to November 2023, after obtaining IEC clearance (ECR/440/Inst/MH/2013/RR-2019).

Inclusion and Exclusion criteria: The inclusion criteria for the present study included adults aged 40 years and older who sought prosthodontics treatment for complete dentures and were willing to participate. Conversely, the exclusion criteria included children, individuals without a clinical diagnosis of complete edentulism and those with severe mental disorders that may hinder participation.

Sample size calculation: The sample size was calculated by considering a similar study conducted by Layton D and Walton T [1].

Formula used was:

$$N=\frac{Z^2_{1-\alpha/2}*p*(1-p)}{D^2}$$

$=((1.96)^2*0.73*(1-0.73)/(0.05)^2$

$=303$

$Z1-\alpha/2=1.96$, at 5% level of significance

P=% Patient satisfaction for prosthetic treatment=73%

D=estimated error (0.05%)

Study Procedure

A total of 303 systemically and psychologically healthy completely edentulous patients were selected from the OPD, aged between 30-65 years of either gender, after obtaining their consent regarding their willingness to participate in the study. The proforma was distributed to all patients in their native language. This questionnaire was used to assess patient mindfulness as well as their satisfaction with their denture treatment in various aspects such as aesthetics, phonetics, mastication and comfort. The mindfulness questionnaire used in the present study was the MAAS, which was distributed and filled out by the patients prior to treatment. The conscious awareness values of the patients were evaluated using the Likert scale. MAAS is a 6-point Likert-type scale consisting of 15 items (1=almost always; 2=most often; 3=sometimes; 4=rarely; 5=very rarely; 6=almost never), which is a universally used free scale. The total minimum score is 15, while the maximum score can be as high as 90. The interpretation of the score is done by simply computing the mean of the 15 items. Higher scores reflect higher levels of dispositional mindfulness, which was evaluated by a single person without knowledge of the patient's treatment status [4]. The patient then underwent the treatment. Upon completion of the treatment, the patient filled out a PSQ consisting of 24 questions [7]. This was assessed using a Likert scale ranging from 1 to 5 (5=Very satisfied; 4=Satisfied; 3=Neither satisfied nor dissatisfied; 2=Dissatisfied; 1=Very dissatisfied). The minimum score is 24 and the maximum score can be up to 125. This score indicates that a higher score correlates with greater patient satisfaction. A correlative evaluation was then conducted after assessing the individual scores on both questionnaires.

STATISTICAL ANALYSIS

The software used for the analysis was Statistical Package for Social Sciences (SPSS) version 27.0. Descriptive and inferential statistical analyses were conducted for patient mindfulness and patient satisfaction scores. Both questionnaires were analysed using Pearson's Correlation Coefficient and a p-value of less than 0.05 was considered the level of significance.

RESULTS

A total of 303 participants were included in the study. The majority of the patients were females, with 170 (56.1%), whereas 133 (43.9%) were males. Most of them were on pensions, 120 (39.6%) and had completed primary schooling or were SSC pass, 80 (26.4%) [Table/Fig-1].

Variables	n (%)
Gender	
Male	133 (43.9)
Female	170 (56.1)
Employment status	
Unemployed	79 (26.1)
Retired/pension	120 (39.6)
Employed	104 (34.3)

Educational status	
Uneducated	63 (20.8)
Primary schooling	80 (26.4)
SSC pass	80 (26.4)
HSC pass	64 (21.1)
PG	16 (5.3)

[Table/Fig-1]: Baseline characteristics of participants.
SSC: Secondary school certificate, HSC: Higher secondary certificate, PG: Postgraduation

The mean and standard deviation of the responses to the MAAS questionnaire, where participants indicated their level of agreement with various statements is shown in [Table/Fig-2]. The highest mean MAAS score was related to the question about getting so focused on a goal that they lose touch with what they are doing right now to achieve it (3.06±1.34), while the lowest mean score was calculated for the question regarding experiencing some emotion without being conscious of it until sometime later (1.75±1.07).

MAAS questionnaire	Mean±SD
I could be experiencing some emotion and not be conscious of it until sometime later	1.7525±1.07413
I break or spill things because of carelessness, not paying attention, or thinking of something else	2.1254±1.10273
I find it difficult to stay focused on what's happening in the present	2.7525±1.48105
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way	2.7591±1.45735
I tend not to notice feelings of physical tension or discomfort until they really grab my attention	2.7855±1.46375
I forget a person's name almost as soon as I've been told it for the first time	2.5941±1.48175
It seems I am "running on automatic" without much awareness of what I'm doing	2.5479±2.23389
I rush through activities without being really attentive to them	2.6997±1.43013
I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there	3.0660±1.34050
I do jobs or tasks automatically, without being aware of what I'm doing	2.7756±1.48362
I find myself listening to someone with one ear, doing something else at the same time	2.7426±1.62953
I drive places on "automatic pilot" and then wonder why I went there	3.0462±1.55405
I find myself preoccupied with the future or the past	2.6040±1.50328
I find myself doing things without paying attention	2.5941±1.45241
I snack without being aware that I'm eating	2.7756±1.49695

[Table/Fig-2]: Assessment of MAAS questionnaire.

The mean satisfaction score for facial appearance with dentures was 1.80±1.07 in aesthetic parameters. The mean satisfaction score for the feeling of confidence when speaking with dentures was reported as 1.87±0.76 in phonetic parameters. The mean satisfaction score indicating that dentures were helpful in eating food was reported as 1.82±1.16 in mastication parameters. The mean satisfaction score for the absence of sore spots due to a denture was reported as 3.47±1.36 in comfort parameters [Table/Fig-3].

Aesthetic	Mean±SD
Have missing teeth made an impact on your profile?	2.2739±1.15985
Do you avoid laughing or smiling with missing teeth?	2.2970±1.13533
Do you avoid conversation with others due to missing teeth?	2.4356±1.38642
Are you afraid to visit an occasion without your teeth?	2.1485±1.12220
Are you satisfied with your facial appearance with dentures?	1.8053±1.07271
Are you satisfied with the size, shape and colour of the teeth?	1.9142±1.13021
Phonetics	
Do you have a speech problem due to missing teeth?	2.4389±1.34536
Does air blow out during speech?	2.5248±1.36606
Do you often avoid people due to a speech problem?	2.0792±1.07669
Has a speech problem affected your profession?	2.3927±1.25052
Are you satisfied with your speech with dentures?	1.8779±0.76445
Do you feel confident when you speak with a denture?	2.2772±1.11983
Mastication	
Has your chewing capability been compromised without teeth?	2.2673±1.22791
Have your ability to engulf food been affected?	2.3267±1.29780
Has your diet selection changed?	2.0759±1.32382
Do you avoid eating with others?	2.4488±1.38936
Has a loss of teeth affected your digestion and general health?	2.1353±1.21177
Are your dentures helpful in eating food?	1.8284±1.16385
Do your upper denture falling down while opening the mouth?	3.7748±2.62918
Do your lower denture getting displaced on tongue movements?	3.4950±2.67917
Comfort	
21. Do you have pain while opening or closing the mouth with denture?	3.5083±1.32441
22. Do you have even contact of teeth on both sides while closing the mouth?	2.0792±1.16531
23. Have you had sore spots due to denture?	3.4785±1.36125
24. Have felt that your prosthesis has not been fitting properly?	4.2838±1.04468

[Table/Fig-3]: Descriptive analysis of satisfaction of patients.

The correlation between patient mindfulness, as measured by the MAAS and the PSQ is shown in [Table/Fig-4]. Using Pearson's correlation coefficient, a positive correlation was found between the MAAS score and the PSQ score ($r=0.34$, $p<0.01$). This indicates that as the MAAS score of the patient increases, the PSQ score also increases.

Variables	N	Mean±SD	r	p-value
MAAS	303	28.9654±3.6741	0.347	0.01
PSQ	303	46.7425±4.9247		

[Table/Fig-4]: Correlation between patients' mindfulness using MAAS and PSQ by Pearson's correlation.

DISCUSSION

The outcome of the present study reveals a significant positive correlation between patient mindfulness and dental treatment satisfaction, indicating that individuals with higher levels of mindfulness tend to report greater satisfaction with their dental experiences. This finding highlights the importance of integrating mindfulness practices into dental care, as fostering mindfulness can help patients manage the anxiety and discomfort associated with dental procedures, ultimately leading to improved satisfaction and adherence to treatment.

Higher mindfulness scores are typically correlated with higher levels of positive affect, optimism, self-actualisation and self-esteem. Those with better mindfulness scores also show reduced levels of neuroticism, anxiety, despair and negative affect. The literature shows that mindfulness practitioners have reduced dental anxiety. Additionally, dental anxiety and mindful behaviour are substantially inversely connected, regardless of the correlation coefficient [15]. Furthermore, Turer OU et al., conducted a randomised controlled trial demonstrating that mindfulness meditation effectively decreases physiological and psychological stress markers during dental implant surgery, suggesting that mindfulness can serve as a reliable strategy for managing anxiety and improving overall patient satisfaction [14].

Previous research indicates that patient satisfaction is a multidimensional concept; certain aspects of care may satisfy some patients while leaving others dissatisfied [15]. The developed questionnaire focused on key elements of patient satisfaction, including aesthetics, mastication and comfort. Dental procedures often evoke concerns related to pain, anxiety, trust and time

perception [13]. By correlating these factors with patient mindfulness, individuals can gain insight into their mindset, which has been shown to enhance treatment satisfaction rates [14]. Research suggests that individuals with higher levels of mindfulness tend to experience less pain or perceive it more mindfully. Consequently, patients scoring higher on the MAAS report greater satisfaction due to lower perceived pain during dental procedures [16].

Mindfulness practices are also known to alleviate anxiety levels. Patients who practice mindfulness exhibit reduced dental anxiety, contributing to a more positive experience during their dental visits. As a result, they are likely to report higher satisfaction with their overall dental care [17]. Another critical factor is the perception of time; mindfulness is associated with an improved perception of time. Mindful patients often perceive their dental appointments as shorter or less burdensome, leading to increased satisfaction scores [16].

Exploring the correlation between the MAAS and the dental PSQ scale has shed light on how mindfulness impacts various aspects of the patient experience in dental settings, potentially leading to improvements in patient care and satisfaction. Mindfulness enhances one's ability to be present and attentive [17]. The average scores in the present research for MAAS were 28.96±3.67 and for PSQ were 46.74±4.92. According to a study by Ding X et al., people who engaged in regular mindfulness practices reported experiencing negative emotions less frequently. Mindfulness has been shown to increase patient satisfaction, along with word-of-mouth publicity for the dentist, which also enhances their dental practice [16].

A correlational study by Atanes ACM et al., employed the MAAS, which is a unique kind of attention and awareness that is connected to several markers of well-being [18]. Clinical research revealed that the temporal and situational dynamics of self-regulated behaviour and well-being can be studied using the MAAS, in addition to its ability to predict outcomes of well-being [4]. The current research indicates that aspects of consciousness, other than the conventional conceptualisations and metrics of self-awareness, need to be taken into account. Mindfulness is distinct from these conventional forms in multiple ways: While there is an intrinsic cognitive and intellectual basis to many forms of self-awareness as they are typically understood, the idea of mindfulness examined here is "pre-reflexive" in that its basis is perceptual and non evaluative [4]. In simple words, mindfulness is experiencing what is present in the moment. In addition to self-focused attention, mindfulness encompasses awareness of one's experience, behaviour and the different stimuli that one encounters in waking reality [19]. The current study offers empirical support for theoretical viewpoints on personality and self-regulation that highlight the critical role that awareness and attention play in the well-being of human health [20,21].

The present study has major clinical implications, as patient satisfaction was assessed based on aesthetics, mastication and the comfort of the prosthesis. With the prior assessment of the MAAS, dentists could better understand patients' dispositions and tailor treatments accordingly, further enhancing patient satisfaction. Understanding patient happiness is essential for improving healthcare services and evaluating the overall quality of care. The present research not only correlates patient mindfulness with satisfaction but also aids dentists in comprehending their patients' true nature and the significance of mindfulness in enhancing overall well-being. Future research should investigate the mechanisms through which mindfulness influences patient experiences and consider qualitative approaches to gain deeper insights into patients' perceptions. Overall, prioritising mindfulness in clinical practice can create a more supportive environment that enhances both emotional well-being and health outcomes for dental patients.

Limitation(s)

Considering human nature, where a person may not be comfortable being criticised, a bias could develop in the study while the participants answer the questionnaire. This could be considered a limitation of the study that cannot be overcome.

CONCLUSION(S)

The present study aimed to evaluate the correlation between patient mindfulness and dental treatment satisfaction, revealing that higher levels of mindfulness positively and significantly correlated with increased satisfaction during dental procedures. This finding underscores the importance of incorporating mindfulness practices into dental care, as they help to enhance patients' overall experiences. Since mindfulness is a trait that can be measured with validity and reliability and is important in many facets of healthcare, the authors hope that the current research will support this trend. Additional investigation into this quality might reveal important new directions for improving well-being. By fostering mindfulness among patients, dental practitioners can improve treatment satisfaction and create a more positive dental experience, ultimately contributing to better oral health outcomes.

REFERENCES

[1] Layton D, Walton T. Patient-evaluated dentistry: Development and validation of a patient satisfaction questionnaire for fixed prosthodontic treatment. Int J Prosthodont. 2011;24(4):332-41.
[2] Chiesa A, Serretti A. Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. J Altern Complement Med. 2009;15(5):593-600.
[3] Wilber K. Integral psychology: Consciousness, spirit, psychology, therapy. Boston, MA, US: Shambhala Publications; 2000;xiii:303.
[4] Brown KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. J Pers Soc Psychol. 2003;84(4):822-48.
[5] Goldin PR, Gross JJ. Effects of Mindfulness-Based Stress Reduction (MBSR) on emotion regulation in social anxiety disorder. Emotion. 2010;10(1):83-91.
[6] Baer RA, Smith GT, Hopkins J, Krietemeyer J, Toney L. Using self-report assessment methods to explore facets of mindfulness. Assessment. 2006;13(1):27-45.
[7] Ahmed AR, Muneer M, Hussain MW, Chaturvedi S, Khan MF, Rana SAA. Clinical analysis of complete denture satisfaction factors: Dentist and patient perspective. Int J Med Res Health Sci [Internet]. 2019;8(8):128-34. [cited 2024 Apr 6]. Available from: https://www.semanticscholar.org/paper/Clinical-Analysis-of-Complete-Denture-Satisfaction-Ahmed-Muneer/6b6f3f7c94cabde9b6aa657b361597b62d915a46.
[8] Luo JYN, Liu PP, Wong MCM. Patients' satisfaction with dental care: A qualitative study to develop a satisfaction instrument. BMC Oral Health. 2018;18(1):15.
[9] Davies AR, Ware JE. Measuring patient satisfaction with dental care. Soc Sci Med A. 1981;15(6):751-60.
[10] Keng SL, Smoski MJ, Robins CJ. Effects of mindfulness on psychological health: A review of empirical studies. Clin Psychol Rev. 2011;31(6):1041-56.
[11] Kuang R, Moldovan C, Drury S, Wagner H, Jellison F, Staack A. Effects of mindfulness meditation on patient experience during urodynamics: A prospective study. Int Urogynecol J. 2024;35(10):2013-21.
[12] Campos Sousa E, Freire L. The effect of brief mindfulness-based intervention on patient satisfaction and loyalty after waiting. J Consum Aff. 2023;57(2):906-42.
[13] Hymowitz G, Hasan F, Yerramalli G, Cervoni C. Mindfulness-based interventions for surgical patients and impact on postoperative outcomes, patient wellbeing, and satisfaction. Am Surg. 2024;90(5):947-53.
[14] Turer OU, Ozcan M, Alkaya B, Demirbilek F, Alpay N, Daglioglu G, et al. The effect of mindfulness meditation on dental anxiety during implant surgery: A randomized controlled clinical trial. Sci Rep. 2023;13(1):21686.
[15] Yao J, Carciofo R, Pan L. Rational thinking as a mediator of the relationship between mindfulness and dental anxiety. Sci Rep. 2023;13(1):3104.
[16] Ding X, Zhao T, Li X, Yang Z, Tang YY. Exploring the relationship between trait mindfulness and interpersonal sensitivity for Chinese College students: The mediating role of negative emotions and moderating role of effectiveness/authenticity. Front Psychol. 2021;12:624340.
[17] Baer RA, Carmody J, Hunsinger M. Weekly change in mindfulness and perceived stress in a mindfulness-based stress reduction program. J Clin Psychol. 2012;68(7):755-65.
[18] Atanes ACM, Andreoni S, Hirayama MS, Montero-Marin J, Barros VV, Ronzani TM, et al. Mindfulness, perceived stress, and subjective well-being: A correlational study in primary care health professionals. BMC Complement Altern Med. 2015;15:303.
[19] Bosma CM, Valö L, Haigh EAP. Langer Mindfulness/Mindlessness Scale (MMS). In: Medvedev ON, Krägeloh CU, Siegert RJ, Singh NN, editors. Handbook of Assessment in Mindfulness Research [Internet]. Cham: Springer International Publishing; 2022;01-12. [Cited 2024 Apr 6]. Available from: https://doi.org/10.1007/978-3-030-77644-2_28-1.

[20] Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist. 2000;55(1):68-78. [cited 2024 Jun 24]. Available from: https://psycnet.apa.org/record/2000-13324-007.

[21] Hassel AJ, Wegener I, Rolko C, Nitschke I. Self-rating of satisfaction with dental appearance in an elderly German population. Int Dent J. 2008;58(2):98-102.

PARTICULARS OF CONTRIBUTORS:
1. Professor, Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
2. Postgraduate Student, Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
3. Professor and Chief Medical Superintendent (CMS), Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
4. Assistant Professor, Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
5. Associate Professor, Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
6. Professor, Department of Oral and Maxillofacial Surgery, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.
7. Assistant Professor, Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Khushbu Nimish Doshi,
Professor and Chief Medical Superintendent (CMS), Department of Prosthodontics and Crown and Bridge, Datta Meghe Institute of Higher Education and Research, Wardha-629001, Maharashtra, India.
E-mail: khushbudoshi93@gmail.com

PLAGIARISM CHECKING METHODS: [Jain H et al.]
- Plagiarism X-checker: Jun 29, 2024
- Manual Googling: Oct 18, 2024
- iThenticate Software: Jan 13, 2025 (10%)

ETYMOLOGY: Author Origin

EMENDATIONS: 10

AUTHOR DECLARATION:
- Financial or Other Competing Interests: None
- Was Ethics Committee Approval obtained for this study? Yes
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. NA

Date of Submission: **Jun 24, 2024**
Date of Peer Review: **Sep 18, 2024**
Date of Acceptance: **Jan 15, 2025**
Date of Publishing: **May 01, 2025**