

Association Of Demographic Characteristics And Denture Use Duration With Patient Satisfaction Among Complete Denture Users

Budiono*, Ayu Kristin**, Siti Khamadatu***, Erdianto Setya Wardhana****, Hayyu Failasufa*****

* Department of Prosthodontics, Faculty of Dentistry, Universitas Muhammadiyah Semarang

** Department of Pediatric Dentistry, Faculty of Dentistry, Universitas Muhammadiyah Semarang

*** Dentistry Study Program, Faculty of Dentistry, Universitas Muhammadiyah Semarang

**** Departemen of Community Oral Health and Prevention, Faculty of Dentistry, Universitas Muhammadiyah Semarang

***** Departemen of Community Oral Health and Prevention, Faculty of Dentistry, Universitas Sultan Agung Semarang

Correspondence: drq.hayyu@unimus.ac.id

Received 26 July 2026; 1st revision 26 July 2026; 2nd revision 24 August 2026; Accepted 19 August 2026;

Published online 31 August 2026

Keywords:

Complete Dentures,
Patient Satisfaction,
Demographic Factors,
Denture Duration

ABSTRACT

Background: Patient satisfaction is a key indicator of success in complete denture treatment, reflecting both functional outcomes and quality of life.

Objective: This study aimed to assess the association between demographic characteristics, denture use duration, and patient satisfaction among complete denture users in Semarang, Indonesia.

Method: An analytical cross-sectional study was conducted among 63 complete denture users selected through purposive sampling. Data were collected using a validated questionnaire covering demographic characteristics, duration of denture use, and satisfaction measured using a 5-point Likert scale. Data were analyzed using Pearson correlation and multiple linear regression with a significance level of $p < 0.05$.

Result: Significant positive correlations were found between satisfaction and age ($r = 0.512$; $p = 0.003$), education level ($r = 0.365$; $p = 0.015$), employment status ($r = 0.278$; $p = 0.048$), and duration of denture use ($r = 0.598$; $p = 0.001$). In the multiple linear regression model, denture use duration showed the largest regression coefficient ($B = 0.639$; $p < 0.001$). The model explained 42% of the variance in patient satisfaction ($R^2 = 0.42$; adjusted $R^2 = 0.38$).

Conclusion: Age, education level, employment status, and denture use duration were significantly associated with patient satisfaction. Denture use duration showed the strongest statistical association in the multivariable model; however.

Copyright ©2026 National Research and Innovation Agency. This is an open access article under the CC BY-SA license (<https://creativecommons.org/licenses/by-sa/4.0/>).

doi: <http://dx.doi.org/10.30659/odj.13.2.192-201>.

2460-4119 / 2354-5992 ©2026 National Research and Innovation Agency

This is an open access article under the CC BY-SA license (<https://creativecommons.org/licenses/by-sa/4.0/>)

Odonto : Dental Journal accredited as **Sinta 3 Journal** (<https://sinta.kemdikbud.go.id/journals/profile/3200>)

How to Cite: Budiono, et al. Association Of Demographic Characteristics And Denture Use Duration With Patient Satisfaction Among Complete Denture Users. Odonto: Dental Journal, v.13, n.2, p.192-201, August 2026.

BACKGROUND

Complete dentures remain a widely utilized prosthodontic intervention for individuals experiencing complete edentulism ¹. Beyond restoring masticatory function, these prostheses contribute substantially to facial aesthetics, psychosocial well-being, and overall quality of life. Improvements in oral health-related quality of life (OHRQoL) and patient-reported outcomes have been consistently reported among complete denture users, emphasizing the importance of prosthetic rehabilitation in edentulous patients ^{2,3}. Consequently, patient satisfaction has emerged as a key outcome indicator in evaluating the success of complete denture treatment ^{4,5}.

Previous studies have identified demographic characteristics as potential correlates of denture satisfaction. Age may be related to differences in treatment expectations and adaptation to removable prostheses, whereas education may shape health literacy, understanding of treatment limitations, and expectations of care. Employment status may reflect socioeconomic resources and the social contexts in which denture function and appearance are experienced. Evidence regarding these associations, however, has not been uniform across populations ^{6,7,9–11}.

Duration of denture use is another relevant factor because adaptation to a complete denture develops over time. Familiarity with the prosthesis and neuromuscular adjustment may be associated with perceived comfort and function, although the direction and magnitude of this relationship can vary among users ^{8,12}. Thus, demographic characteristics and denture use duration represent related but distinct dimensions that may contribute to variation in patient-reported satisfaction.

In addition to patient-related factors, the quality of dental care services including communication, follow-up care, and provider responsiveness has been recognized as an important contributor to patient satisfaction ¹³. Effective interaction between dental professionals and patients plays a significant role in shaping treatment perception and satisfaction outcomes ¹⁴. These service-related aspects are particularly relevant in developing healthcare systems, where variability in service delivery may influence patient perceptions and overall treatment outcomes ^{7,15}.

Previous work, including Jabeen et al. (2022), has examined education, demographic characteristics, denture use duration, and satisfaction in complete denture users ¹¹. However, findings from one population may not be directly transferable to another because expectations, access to follow-up care, and patterns of prosthodontic service use may differ across healthcare and sociocultural settings. Evidence from Indonesian complete denture users remains limited. This study therefore aimed to assess the association between demographic characteristics, denture use duration, and patient satisfaction among complete denture users in Semarang, Indonesia.

RESEARCH METHOD

This study employed an analytical observational design with a cross-sectional approach to examine associations between demographic characteristics, denture use duration, and patient satisfaction among complete denture users. The study was conducted in several healthcare facilities in Semarang, Indonesia. A total of 63 participants were recruited using purposive sampling based on predefined eligibility criteria.

Participants were included if they were complete denture users aged 18 years or older and were willing to participate by providing informed consent. Individuals with severe systemic diseases, cognitive impairment,

or conditions that could affect their ability to respond reliably to the questionnaire were excluded from the study. Ethical approval for this study was obtained from the Health Research Ethics Committee of the Dental and Oral Hospital, Universitas Muhammadiyah Semarang (No. 010/RSGM.KEPK/PE/2024).

Data were obtained through a structured questionnaire adapted from previously validated instruments designed to assess patient satisfaction with complete dentures. The questionnaire comprised three main domains: demographic characteristics, including age, gender, educational attainment, and employment status; duration of denture use measured in months; and patient satisfaction. Satisfaction was evaluated using a 5-point Likert scale, ranging from 1 (very dissatisfied) to 5 (very satisfied), encompassing five aspects: comfort, aesthetics, functional performance, self-confidence, and professional support. The total satisfaction score was determined by calculating the mean score across all questionnaire items.

Before implementation, the questionnaire underwent validity and reliability assessments. Content validity was assessed by two experts who evaluated the relevance, clarity, and appropriateness of each questionnaire item. Internal consistency was assessed using Cronbach's alpha, which yielded a coefficient of 0.82, indicating good internal consistency of the questionnaire. Data collection was performed through direct face-to-face interviews and self-administered questionnaires under researcher supervision to maintain response completeness and accuracy.

Data analysis was conducted using statistical software. Descriptive statistics were used to summarize participant characteristics and satisfaction scores. Normality was evaluated using the Kolmogorov–Smirnov test, and multicollinearity was assessed using the Variance Inflation Factor (VIF), with VIF <10 indicating no substantial multicollinearity. Pearson correlation analysis examined bivariate associations between the study variables and patient satisfaction. Variables with $p < 0.25$ in bivariate analysis were entered into the multiple linear regression model. Regression coefficients are reported with standard errors, 95% confidence intervals, and p-values. Education level is treated as an ordinal variable and coded as 1 = primary school, 2 = junior high school, 3 = senior high school, and 4 = higher education. Employment status is coded as a binary variable, with 0 = not employed and 1 = employed. Model fit is presented using R^2 and adjusted R^2 . Statistical significance was set at $p < 0.05$.

RESULTS

A total of 63 complete denture users participated in this study. The demographic characteristics of respondents are presented in Table 1. The majority of participants were male (55.6%) and aged above 40 years (63.4%). Most respondents had completed secondary education (39.7%), and more than half were employed (60.3%). Regarding denture use, nearly half of the participants (47.6%) had used complete dentures for 2–6 months.

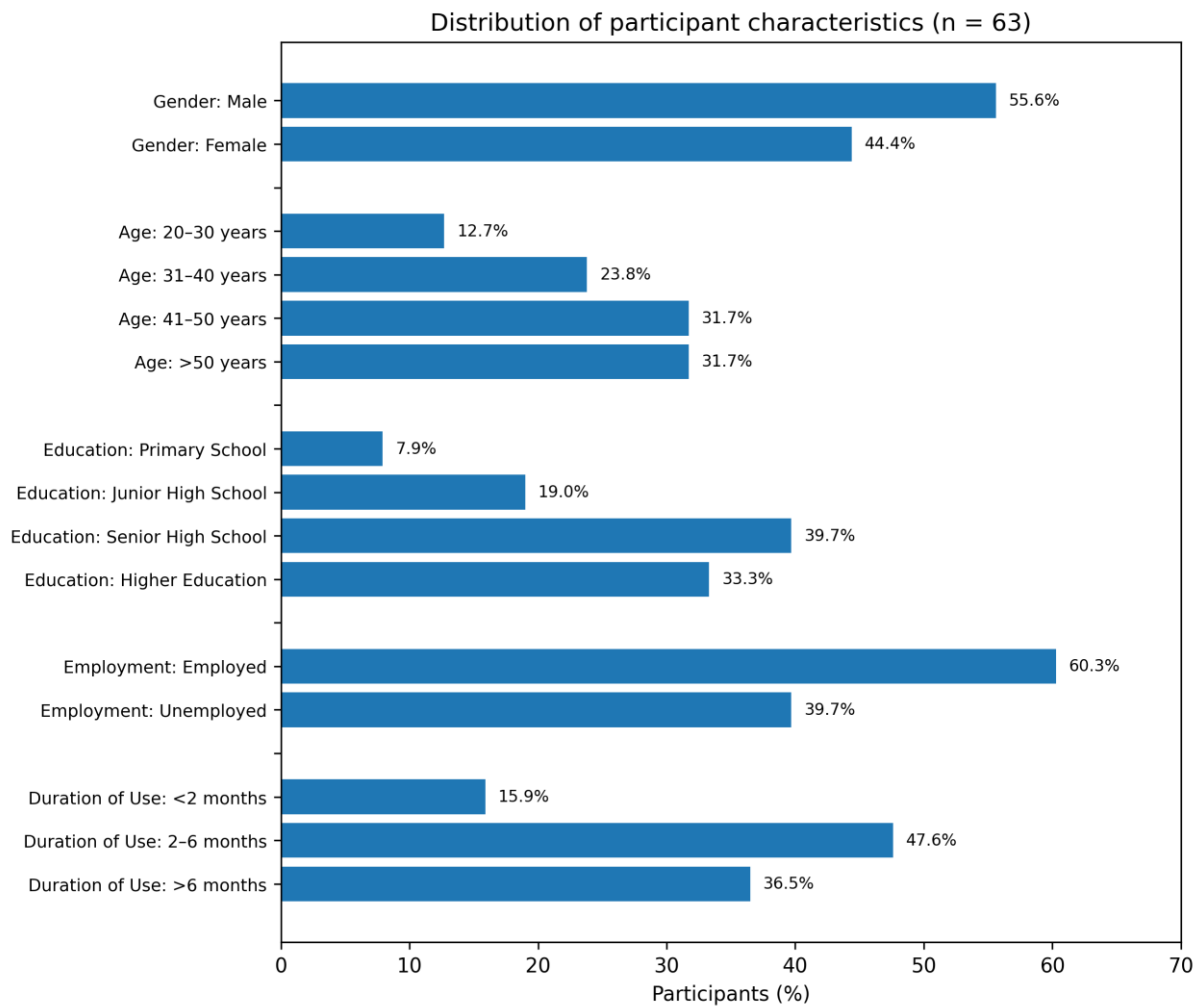


Figure 1. Distribution of participant characteristics (n = 63).

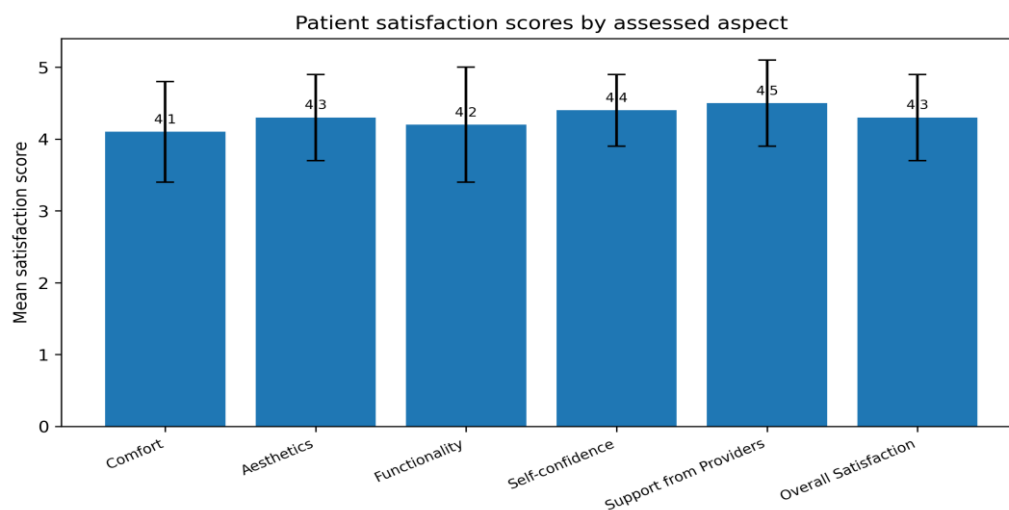


Figure 2. Mean patient satisfaction scores by assessed aspect. Error bars represent standard deviations (SD).

Table 3. Pearson Correlation between Satisfaction and Variables

Variable	Correlation (r)	p-value
Age	0.512	0.003
Gender	0.214	0.087
Education Level	0.365	0.015
Employment Status	0.278	0.048
Duration of Use	0.598	0.001

Table 4. Multiple Linear Regression Analysis

Variable	B (95% CI)	SE	t-value	p-value
Constant	2.145 (0.828–3.462)	0.658	3.260	0.002
Age	0.422 (0.176–0.668)	0.123	3.431	0.001
Education Level	0.275 (0.079–0.471)	0.098	2.806	0.007
Employment Status	0.213 (0.003–0.423)	0.105	2.029	0.046
Duration of Use	0.639 (0.413–0.865)	0.113	5.654	<0.001

Model summary: $R^2 = 0.42$; adjusted $R^2 = 0.38$

The mean satisfaction scores across different dimensions are presented in Table 2. Overall, patient satisfaction was relatively high (mean = 4.3 ± 0.6). Professional support had the highest mean score (4.5 ± 0.6), followed by self-confidence (4.4 ± 0.5) and aesthetics (4.3 ± 0.6). Functionality and comfort also showed high mean scores, illustrating the multidimensional pattern of patient-reported satisfaction.

The results of Pearson correlation analysis (Table 3) indicated that age ($r = 0.512$; $p = 0.003$), education level ($r = 0.365$; $p = 0.015$), employment status ($r = 0.278$; $p = 0.048$), and duration of denture use ($r = 0.598$; $p = 0.001$) were significantly positively correlated with patient satisfaction. Among these variables, duration of denture use showed the strongest correlation. In contrast, gender was not significantly associated with satisfaction ($r = 0.214$; $p = 0.087$).

Multiple linear regression (Table 4) showed significant associations of age ($B = 0.422$; 95% CI: 0.176–0.668; $p = 0.001$), education level ($B = 0.275$; 95% CI: 0.079–0.471; $p = 0.007$), employment status ($B = 0.213$; 95% CI: 0.003–0.423; $p = 0.046$), and denture use duration ($B = 0.639$; 95% CI: 0.413–0.865; $p < 0.001$) with patient satisfaction. Denture use duration had the largest regression coefficient among the variables included in the model.

The model explained 42% of the variance in patient satisfaction ($R^2 = 0.42$; adjusted $R^2 = 0.38$), indicating that a substantial proportion of variability remained unexplained. No evidence of substantial multicollinearity was observed among the included variables ($VIF < 10$).

DISCUSSION

This study found that age, education level, employment status, and denture use duration were significantly associated with patient satisfaction among complete denture users in Semarang. Denture use

duration showed the largest coefficient in the multivariable model. These findings should be interpreted as cross-sectional associations rather than evidence that any of these factors causes greater satisfaction. Previous prosthodontic studies have similarly linked demographic characteristics, denture experience, and adaptation with patient-reported satisfaction ^{5,8}, but the strength and direction of these relationships have varied across populations.

The overall satisfaction score was relatively high, with the highest mean observed for professional support, followed by self-confidence and aesthetics. This pattern suggests that patients evaluated their dentures across functional, psychosocial, and interpersonal dimensions. The high professional-support score is consistent with literature emphasizing the relevance of communication, follow-up care, responsiveness, and patient-centered interaction in shaping treatment experience. These findings should not be interpreted as evidence that professional support alone caused higher satisfaction, because the study did not isolate or temporally assess this relationship.

The high score for self-confidence also illustrates the psychosocial dimension of complete denture use. Tooth loss has been associated with impaired social interaction, reduced self-esteem, and poorer quality of life, while prosthodontic rehabilitation may support improvements in appearance-related confidence and social functioning. Prior studies have reported favorable oral health-related quality of life and social outcomes among complete denture users. In the present study, however, self-confidence was measured as one component of satisfaction rather than as a separate causal outcome.

Age was positively associated with patient satisfaction in this study, with older participants reporting higher satisfaction. One interpretation is that treatment expectations and acceptance of the functional limitations of removable prostheses may differ by age. This direction is not entirely consistent with reports suggesting that younger patients may have advantages in neuromuscular adaptation or different aesthetic expectations ^{9,10}. The discrepancy may reflect differences in age distribution, previous denture experience, clinical characteristics, or the instruments used to assess satisfaction. Because these factors were not fully measured here, the age association should not be interpreted as an intrinsic effect of ageing itself.

Educational level was also associated with satisfaction. Higher educational attainment may correspond with differences in health literacy, understanding of treatment limitations, and communication with dental professionals. Similar associations have been reported in previous denture research ^{11,19}. Nevertheless, education may also act as a marker for socioeconomic and healthcare-access characteristics that were not directly assessed; therefore, the observed coefficient should be interpreted as an association rather than a direct effect.

Employment status showed a weaker but statistically significant association with satisfaction. Employment may capture aspects of socioeconomic resources, social participation, or access to follow-up care, each of which could shape how the benefits and limitations of dentures are perceived. Previous studies have also linked socioeconomic and occupational characteristics with prosthodontic satisfaction ^{5,8}. However, employment status alone cannot distinguish these mechanisms, and residual confounding by income, social activity, or service utilization remains possible.

Denture use duration showed the strongest statistical association with satisfaction. This pattern is compatible with the concept of gradual physiological and psychological adaptation: repeated denture use may be accompanied by greater familiarity with mastication, speech, and oral muscular control ^{11,12,17}. However, the

present cross-sectional data cannot establish that longer use leads to higher satisfaction. Reverse causality is also plausible; patients who are more satisfied with their dentures may be more likely to continue using them for longer periods, whereas dissatisfied users may discontinue or replace them earlier.

The bivariate correlation between denture use duration and satisfaction was $r = 0.598$, and the corresponding regression coefficient was $B = 0.639$ (95% CI: 0.413–0.865; $p < 0.001$). Although this association was stronger than those observed for education and employment, it may partly reflect unmeasured clinical differences. Retention, stability, residual ridge anatomy, mucosal condition, previous denture experience, and prosthesis quality were not included in the model and could be related to both continued denture use and satisfaction.

In addition, studies using validated patient denture assessment instruments demonstrated that adaptation period and prior denture experience significantly affect patient-reported satisfaction outcomes. Rezeki et al. (2017) validated the Indonesian version of the Patient's Denture Assessment (PDA-ID) instrument and demonstrated its reliability in evaluating multidimensional patient satisfaction toward complete dentures²⁰. Furthermore, Sastrawijaya et al. (2019) reported that patient satisfaction varied according to the type of complete denture used, particularly in aspects related to comfort, aesthetics, and mastication ability²¹. These findings strengthen the interpretation that patient satisfaction is multidimensional and influenced not only by demographic factors, but also by denture experience and subjective adaptation processes.

The observed association between denture use duration and satisfaction also has implications for follow-up care, but these implications should be framed cautiously. Patients in the early period of denture use may require additional counseling and assessment of adaptation problems, while persistent dissatisfaction should prompt evaluation of clinical factors rather than being attributed to insufficient adaptation alone. Patient education regarding denture hygiene, maintenance, and realistic treatment expectations remains relevant, particularly where community knowledge of denture-related risks is limited²².

Gender was not significantly associated with patient satisfaction. This suggests that, within this sample, variation in satisfaction was more closely related to other measured characteristics than to gender. Previous studies have also reported that gender is not a consistent correlate of denture satisfaction, although cultural and psychosocial differences between populations may contribute to heterogeneous findings.

The regression model explained 42% of the variance in patient satisfaction (adjusted $R^2 = 0.38$), leaving a substantial proportion unexplained. This finding is consistent with the multifactorial nature of denture satisfaction. Clinical factors such as retention, stability, residual ridge anatomy, oral mucosal condition, prosthesis quality, previous denture experience, psychological adaptation, and clinician-related factors may contribute to patient perceptions but were not evaluated in the present study^{3,8}. Their omission may have introduced residual confounding and may partly account for the associations observed with demographic characteristics and denture use duration.

From a public health perspective, these findings support attention to patient-centered prosthodontic care, including communication, patient education, and follow-up. Patient satisfaction is an important patient-reported measure of treatment experience and healthcare quality. In settings where access to prosthodontic services and oral health literacy vary, these components may be relevant to improving service responsiveness. The present cross-sectional results, however, do not establish that strengthening these components will directly increase satisfaction or oral health-related quality of life.

This study has several limitations. First, the cross-sectional design does not establish temporal sequence or causality and cannot rule out reverse causality, particularly for the association between denture use duration and satisfaction. Second, the limited sample size and purposive sampling restrict generalizability. Third, satisfaction was self-reported and may be affected by response bias. Important clinical determinants—including denture retention and stability, residual ridge anatomy, mucosal condition, prosthesis quality, and previous denture experience—were not objectively assessed. Their absence from the model creates potential residual confounding. The findings should therefore be interpreted as context-specific associations among the participants studied rather than causal estimates for the wider population.

Taken together, the findings indicate that patient satisfaction with complete dentures is multidimensional and is associated with demographic characteristics, denture use duration, and potentially other unmeasured clinical and psychosocial factors. Interpretation should therefore extend beyond technical prosthesis fabrication while remaining cautious about causal conclusions from the present cross-sectional data.

CONCLUSION

Age, education level, employment status, and denture use duration were significantly associated with patient satisfaction among complete denture users in Semarang. Denture use duration showed the largest regression coefficient, but the cross-sectional design does not establish that longer use causes greater satisfaction.

The findings support attention to patient education, follow-up, and assessment during denture use while also indicating that satisfaction cannot be explained by demographic characteristics and duration alone. Clinical and psychosocial factors should be considered when evaluating patient-reported denture outcomes.

Further studies using longitudinal designs and objective assessment of denture quality, retention, stability, oral tissue condition, and previous denture experience are needed to clarify temporal relationships and reduce residual confounding.

ACKNOWLEDGEMENT

The authors gratefully acknowledge the financial support provided by the Institute for Research and Community Service of Universitas Muhammadiyah Semarang (LPPM UNIMUS) through the 2024 Internal Research Grant Scheme NO.0167/UNIMUS.L/PG/PJ.INT/2024. We also extend our appreciation to all participants and the healthcare facilities for their cooperation and contribution to this study.

REFERENCES

1. Marinello CP, Brugger R. Digital Removable Complete Denture — an Overview. *Curr Oral Heal Reports*. Published online 2021. doi:<https://doi.org/10.1007/s40496-021-00299-1>
2. Emami E, de Souza RF, Kabawat M, Feine JS. The impact of edentulism on oral and general health. *Int J Dent*. 2013;2013:498305. doi:10.1155/2013/498305
3. Avelino MEL, Costa RTF, Vila-Nova TEL, Vasconcelos BC do E, Pellizzer EP, Moraes SLD. Clinical performance and patient-related outcome measures of digitally fabricated complete dentures: A systematic review and meta-analysis. *J Prosthet Dent*. 2024;132(4):748.e1-748.e10. doi:10.1016/j.prosdent.2024.02.003
4. Martins AMC, Guimarães LS, Campos CH, et al. The effect of complete dentures on edentulous patients' oral health - related quality of life in long - term : A systematic review and meta - analysis. *Dent Res J (Isfahan)*. Published online 2021:1-21. https://journals.lww.com/derj/_layouts/15/oaks.journals/downloadpdf.aspx?an=01439444-202118000-

00065

5. Bors A, Szekely M, Beresescu L, Maier A, Beresescu F. Patient Satisfaction and Perception with Digital Complete Dentures Compared to Conventional Complete Dentures-A Pilot Study. *Dent J.* 2025;13(7). doi:10.3390/dj13070291
6. Arora H, Choudhary S, Kumar A. Effect of Age, Gender, and Mental Attitude on Complete Denture Satisfaction in North Indian Population. *J Contemp Dent.* 2019;9(1):8-12. <https://doi.org/10.5005/jp-journals-10031-1245>
7. Oweis Y, Ereifej N, Al-Asmar A, Nedal A. Factors Affecting Patient Satisfaction with Complete Dentures. *Int J Dent.* Published online 2022:9565320. doi:<https://doi.org/10.1155/2022/9565320>
8. Awawdeh M, Alotaibi MB, Alharbi AH, Alnafisah SA, Alasiri TS, Alrashidi NI. A Systematic Review of Patient Satisfaction With Removable Partial Dentures (RPDs). *Cureus.* 2024;16(1):e51793. doi:10.7759/cureus.51793
9. McCunniff M, Liu W, Dawson D, Marchini L. Patients' esthetic expectations and satisfaction with complete dentures. *J Prosthet Dent.* 2017;118(2):159-165. doi:10.1016/j.prosdent.2016.10.015
10. Erić J, Šojić LT, Bjelović L, Tsakos G, Šojić LT. Changes in oral health related quality of life (OHRQoL) and satisfaction with conventional complete dentures among elderly people. *Oral Health Prev Dent.* 2017;15(3).
11. Jabeen M, Khan MWU, Akram M. Influence of Education, Demographic Variables and Duration of Denture Use on Patients' Satisfaction with Complete Dentures. *J Pakistan Dent Assoc.* 2022;31(2):136-140. [https://www.jpda.com.pk/public/uploads/Feb 2024/6.-Original-Influence-of-Education.pdf](https://www.jpda.com.pk/public/uploads/Feb%2024/6.-Original-Influence-of-Education.pdf)
12. Al-Jammali ZM, Hameed HA, Alam MK. The Effect of Several Factors on the Patient's Satisfaction with the Complete Dentures and the Correlation with the Adaptation Period. *J Contemp Dent Pract.* 2023;23(9):889-894. doi:10.5005/jp-journals-10024-3411
13. Kurniasari A, Istiqomah E, Sanyoto DD, Illiandri O, Jun Chen HW, Nugroho A. Evaluating The Impact Of Professional Caregiver Performance Factors On Outpatient Satisfaction. *J Kesehat Manarang.* 2025;11(1):34-41. doi:10.33490/jkm.v11i1.1454
14. Alidema SH, Halili R. Evaluation and comparison of patient satisfaction with VertexThermosens and conventional acrylic complete dentures. *Clin Exp Dent Res.* 2024;10(1):e829. doi:10.1002/cre2.829
15. Sharka R, Abed H, Hector M. Oral health-related quality of life and satisfaction of edentulous patients using conventional complete dentures and implant-retained overdentures: An umbrella systematic review. *Gerodontology.* 2019;36(3):195-204. doi:10.1111/ger.12399
16. Nazari A, Bornha S. Patient Education and Communication in Oral and Maxillofacial Treatments BT - Handbook of Oral and Maxillofacial Surgery and Implantology. In: Keyhan SO, Bohluli B, Fallahi HR, Khojasteh A, Fattahi T, eds. Springer Nature Switzerland; 2025:1-153. doi:10.1007/978-3-031-36962-9_289-1
17. Razdan RA, Srivastava R, Jaiswal T, Garg M, Chansoria H, Bais K. Satisfaction among edentulous patients before and after conventional complete denture. *Bioinformation.* 2025;21(3):463-466. doi:10.6026/973206300210463
18. Assunção WG, Barão VAR, Delben JA, Gomes ÉA, Tabata LF. A comparison of patient satisfaction between treatment with conventional complete dentures and overdentures in the elderly: a literature review. *Gerodontology.* 2010;27(2). doi:<https://doi.org/10.1111/j.1741-2358.2009.00299.x>
19. Subramanian D, Govindarajulu RT, Narayanan V, Kalimuthu ND. Comparison of expectation and satisfaction among new and existing denture wearers and correlation of duration of previous denture-wearing experience to satisfaction in completely edentulous patients: A pilot study. *J Indian Prosthodont Soc.* 2019;19(4):324-331. doi:10.4103/jips.jips_165_19
20. Rezeki A, Koesmaningati H, Soetanto MFL. Reliability and validity of an Indonesian version of the patient's denture assessment (PDA): A self-assessment instrument for measuring patient satisfaction with complete dentures. *J Int Dent Med Res.* 2017;10:449-453. <https://api.semanticscholar.org/CorpusID:121175187>
21. Sastrawijaya AD, Kusdhany LS, Gita F. Patient Satisfaction with Types of Complete Denture: A Study Using Validated Indonesian Version of Patient's Denture Assessment (PDA-ID) – A Pilot Study. In: 2019. <https://api.semanticscholar.org/CorpusID:210877232>
22. Failasufa H, Arimbi A, Kusniati R. Analysis of public knowledge about the risk of denture treatment by dental artisans. *Odonto Dent J.* 2023;10(1):76-81. doi:<https://doi.org/10.30659/odj.10.1.76-81>
23. PERAZZO MF, SERRA-NEGRA JM, FIRMINO RT, PORDEUS IA, MARTINS-JÚNIOR PA, PAIVA SM. Patient-centered assessments: how can they be used in dental clinical trials? *Braz Oral Res.* 2020;34(suppl 2). doi:10.1590/1807-3107bor-2020.vol34.0075
24. Leles CR, Silva JR, Curado TFF, Schimmel M, McKenna G. The Potential Role of Dental Patient-Reported Outcomes (dPROs) in Evidence-Based Prosthodontics and Clinical Care: A Narrative Review. *Patient Relat Outcome Meas.* 2022;Volume 13:131-143. doi:10.2147/PROM.S256724

25. Niam MH, Syaharani DA, Ratnawati ID. The Patient Satisfaction Level Analysis on the Application of Compliance with Islamic Law Elements in Sultan Agung Islamic Oral and Dental Hospital. *Odonto Dent J.* 2023;10(2):276. doi:10.30659/odj.10.2.276-283
26. Raharja YD, Kusumadewi S, Astiti DP. GAMBARAN TINGKAT KEPUASAN PASIEN TERHADAP KUALITAS PELAYANAN KESEHATAN DI POLIKLINIK GIGI DAN MULUT RUMAH SAKIT UMUM PURI RAHARJA. *ODONTO Dent J.* 2018;5(1):34. doi:10.30659/odj.5.1.34-44
27. Kartikasari N, Gofur ARP, Salim AN, Atikasari N, Rajali A. Utilization of Denture Services Under Indonesia's National Health Insurance: A Systematic Review. *J Int Oral Heal.* 2026;18(2):120-128. doi:10.4103/jioh.jioh_220_25
28. Arshad S, Jaffer Hussain SF, Jayaram S, Veeraraghavan VP, Karobari MI. Perspective on enhancing quality of life in oral cancer patients: Integrative approaches and comprehensive care. *Oral Oncol Reports.* 2024;11:100633. doi:10.1016/j.oor.2024.100633
29. Niranjana V, Ranpise S. "Life after treatment": what physicians consider important for oral cancer survivors' quality of life. *Front Public Heal.* 2026;14. doi:10.3389/fpubh.2026.1805929
30. de Bataille C, Caunes-Hilary N, Robello A, Bétancourt S, Vigarios E, Maret D. Implementation of the "l'O à la bouche" Therapeutic Patient Education Program at a French Cancer Center: A Multidisciplinary Approach for Managing Post-Cancer Oral Toxicities. *J Cancer Educ.* Published online September 1, 2025. doi:10.1007/s13187-025-02716-w