Article title: Designing Value-Based Dental Benefit Packages: A Multicriteria Decision Analysis in the Netherlands

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Supplementary file 2. Extraction

Following abstract and full-text screening, 71 records were included for extraction. The study team extracted the study type, setting, patient characteristics, type of intervention or exposure, measured outcomes, key results and time horizon of each record. An overview of the extracted data can be found in Table S3. The extracted evidence was translated into provisional performance levels ahead of expert elicitation using a scale, as shown in Table S4. This scale was determined based on highest and lowest outcomes identified from the literature. An overview of performances on each criterion was made to facilitate expert validation of performance levels and fill gaps of evidence. The completed overview that followed, as shown in Table S5, was used to determine the score of interventions on criteria.

Table S3: Extraction of key results

Reference, year	Study type	Setting	Patient characteristics (disease, age (y))	Intervention/ exposure	Outcomes	Results	Time horizon
Afrashtehfar et al., 2017[1]	Systematic review	Portugal, Germany, The Netherlands, Sweden, Norway, England, USA, Turkey, China	Patients with vital posterior permanent teeth, mean age 29	Crown vs direct restoration	Failure rate	Failure rates differ depending on number of walls: •4 walls: amalgam restoration has a failure rate of 1% and composite restoration 6%. •1 wall: crown prostheses have a failure rate of 12%, composite restoration a rate of 21% and amalgam restoration a rate of 39%. •<1 wall: crown prostheses have a failure rate of 12%, composite restoration a rate of 47% and amalgam restoration a rate of 39%.	5 years
Agnese et al., 2024[2]	Systematic review	Turkey, Brazil, Taiwan, India, Colombia, Indonesia, Germany, Romania, Norway,	Patients with periodontal disease, mean age 26.8-82.9	Periodontitis	Oral health related quality of life	Periodontitis worsens oral health related quality of life by 5.14 OHIP-14 points.	n.r.

		China, Portugal, Iran, Italy, Spain, Israel, UK, Malaysia, Mexico, Sri Lanka, Jordan, Australia, New Zealand					
Almadhoon et al., 2022[3]	Systematic review	India, Brazil, Pakistan	Patients with irreversible pulpitis, mean age 23.99-32.96	Articaine BI vs lidocaine/articaine IANB	Anesthetic success rate, pain	58.7-63.3% success rate depending on type and volume	n.r.
Amarasena et al., 2023[4]	Scoping review	UK, USA	n.r.	Routine dental visits	Caries, periodontitis	Frequency of visits has no significant effects. Individually tailored treatment plans are recommended instead.	2-3 years
Ástvaldsdóttir et al., 2015[5]	Systematic review	Sweden, Denmark, Germany	Unspecified adult population, mean age 34.6-57	Posterior resin composite restoration	Failure rate	•4 year survival proportion of dental restorations is 0.93 •5 year survival proportion is 0.91 •6 year survival proportion is 0.89 •7 year survival proportion 0.88 •9 year survival proportion is 0.86 •12 year survival proportion is 0.86	4-12 years
Botelho et al., 2020[6]	Systematic review	UK, Japan, Sweden, China, Nepal, Brazil, Taiwan, Germany	Patients with periodontitis, mean age 42.9-55.8	Nonsurgical periodontal therapy	Oral health related quality of life	On average, nonsurgical periodontal therapy improves oral health related quality of life: •2.49 OHIP-14 points at 2 weeks •8.94 OHIP-14 points at 3-4 weeks •6.49 OHIP-14 points at 6-12 weeks. •Overall improvement was 5.62 OHIP-14	1-12 weeks
Carra et al., 2020[7]	Systematic review	Sweden, Germany, UK, USA, Portugal	Adult patients with periodontal disease	Behavioral interventions to promote oral health	Plaque, bleeding	No significant effects on plaque or bleeding.	3 months - 3 years
Chou et al., 2023[8]	Systematic review	Australia, China, Germany, The Netherlands, USA, Northern Ireland, Poland, Turkey	Asymptomatic patients, mean age 29-60	Screening, preventive interventions	Caries, periodontal disease, tooth loss, quality of life, function, morbidity	•Routine dental visits have no effects on decayed or filled teeth. •Screening has a sensitivity of 0.72 and specificity of 0.74 for periodontitis. •Examinations have a sensitivity of 0.33-0.83 for caries, 0.42 for periodontal disease, and a specificity of 0.80-0.93 for both periodontal diseases and caries. •No harms are reported for screening and examination.	8-48 months
Coelho et al., 2022[9]	Systematic review	n.r.	Mean age 36-69	Caries management by risk assessment (CAMBRA)	Caries, bacterial load	Treatment plan (CAMBRA) for dental caries does not have an impact on lesions or bacterial load.	12-24 months
Davenport et al., 2003[10]	Systematic review	Norway, Sweden, Finland, UK, USA, Australia, Hong Kong	Patients with deciduous, mixed and permanent dentitions	Routine dental checks	Caries, tooth loss, periodontal disease, oral cancer	Recall interval has no significant effects on caries and periodontal disease.	2-10 years
Diniz-de-Figueiredo et al., 2020[11]	Randomized controlled trial	Brazil	Mean age 34.18	Root canal treatment	Oral health related quality of life	•Baseline OHIP-14 score 27.82 - 29.73. •Root canal reduces OHIP-14 score by 9.71 - 12.31 points (4.9-41.4% improvement).	1 year
Douglass et al., 1986[12]	Longitudinal study	USA	Patients with or without caries or	X-ray	Diagnostic accuracy	Sensitivity for dental caries ranged between 22.0-59.4% and specificity between 97.4-99.1%. Sensitivity for periodontal disease is 84.3-86.4%, specificity between 46.1-80.1%.	n.r.

			periodontal disease, age 28-76				
Fee et al., 2020[13]	Systematic review	Norway, UK	Children and adults	Routine dental checks	Lesion of mucosa, dental caries, quality of life, malocclusion, periodontal disease, patient comfort, lip and oral cavity neoplasms malignant, patient satisfaction	No significant difference between risk-based, 6 month and 24 month intervals	2-4 years
Ferreira et al., 2017[14]	Systematic review	Brazil, Belgium, Nigeria, Sweden, Turkey, Jordan, Japan, Switzerland, New Zealand, China, Israel, USA, Australia, UK, Sudan, India	Dentate patients, mean age 15-75	Gingivitis, periodontitis	Oral health related quality of life	•Gingivitis increases OHIP-14 by 3.74-9.53 •Periodontitis increases OHIP-14 by 4.90-15.57 OHIP-14	n.r.
Gennai et al., 2021[15]	Systematic review	n.r.	Patients with edentulous areas of at least five teeth, mean age 65.96	Prosthetic rehabilitation	Oral health related quality of life	•Prosthetics for patients with periodontitis improve oral health related quality of life by 36.86 OHIP-49 points (69.0% improvement). •Prosthetics for patients with any disease improve oral health related quality of life by 10.52 OHIP-14 points (69.6% improvement).	1 month - 14 years
Gotfredsen et al., 2021[16]	Systematic review	n.r.	Patients with partially edentulous periodontitis, mean age 38-85	Partial removable dental prosthesis	Oral health related quality of life, periodontitis, tooth loss, masticatory functioning	Partial removable dental prosthesis improves quality of life by 21.3 OHIP-49 points (46.3% improvement) and 4.1 OHIP-14 points (35.7% improvement).	2-10 years
Haag et al., 2017[17]	Systematic review	Australia, Germany, United States, Japan, Brazil, Colombia, Ghana	Adult patients, age 18-89	periodontal disease, caries, tooth loss	Health related quality of life	Periodontal disease, caries and tooth loss reduce health related quality of life	n.r.
Hansen et al., 2018[18]	Observational study	Norway	Patients with severe tooth wear in the aesthetic zone, mean age 56.3	Monolithic zirconia crowns	Complications	•94% of crowns had no biological complications •two out of 13 patients experienced technical complications	3 years
Heintze et al., 2022[19]	Systematic review	n.r.	Patients with direct resin composite restoration, mean age 19-58	Direct resin composite restorations	Clinical behavior, complications	•Overall survival rate was 95-97% after 4 years, and 85-90% after 10 years. •4-13% experienced material fractures, 2% retention loss, no effect on anatomical wear, and 28-55% had detectable margins after 10 years. •3% had caries adjacent to restorations after 10 years. •5-15% of restoration color match was not good after 10 years, 90% of restorations had good surface texture after 10 years. 20-50% had marginal staining after 10 years.	4-10 years
Hilmi et al., 2023[20]	Systematic review	n.r.	Patients with or without apical periodontitis	Imaging techniques	Diagnostic accuracy	Sensitivity ranges between 0.16-1.00 and specificity between 0.80-1.00 for apical periodontitis of non-root filled teeth.	n.r.

Iranmanesh et al., 2022[21]	Systematic review	USA, Iran	Mean age 22-36	Inferior alveolar block with additives	Anesthetic success rate	Inferior alveolar nerve block has a 59.3% anesthetic success rate for normal pulp patients and a 41.7% rate for irreversible pulpitis patients. Additives did not make a significant difference.	n.r.
James et al., 2023[22]	Systematic review	India	Indian patients, age <1-74	Oral conditions	Oral health related quality of life	Dental caries decreases oral health related quality of life by 0.87 points. Limited to no evidence was found for effects of periodontal disease. However, more severe periodontal diseases are associated to lower quality of life. Patients with tooth wear have lower quality of life than patients without tooth wear. Prosthetic needs has a significant effect on oral health related quality of life.	n.r.
Järvinen et al., 2018[23]	Systematic review	France, Sweden, Belgium, USA, Denmark	Adult patients with periodontal disease, age 20-80	Behavioral and educational interventions	Clinical findings, self-care, patient evaluations	Hygiene instruction decreases plaque and gingival bleeding and more so when reinforced with behavioral interventions. Self care improved with behavioral interventions. Following improvements were noted: •4% plaque improvement •22.7% reduced bleeding on probing •2 mm reduced PD •36% less plaque •21% less bleeding •0.44 proximal GI, 0.50 proximal PI, 0.26 PI, 0.26 GI, 0.85 PI	1-6 months
Jönsson et al., 2010[24]	Randomized controlled trial	Sweden	Patients with chronic periodontitis, mean age 51.2	Individually tailored oral health education program	Plaque score, pocket closure, BoP, treatment success of nonsurgical periodontal treatment	Individually tailored education improves BoP scores (difference is 8.24%) and nonsurgical periodontal success (31.5% difference).	1 year
Kamma et al., 2004[25]	Cross-sectional study	Greece	Patients with early/aggressive periodontitis, mean age 31.1	Culture, immunofluorescence	Sensitivity, specificity	Sensitivity of immunofluorescence ranged between 0.80-0.97 and specificity ranged between 0.46-1.00, depending on the pathogenic bacteria. Mean sensitivity is 0.92 and specificity is 0.76.	n.r.
Khan et al., 2020[26]	Systematic review	Taiwan, Malaysia, Nepal, Brazil, Romania, Germany, Sweden, UK, Turkey, India, Hong Kong	Patients with periodontal disease, mean age 51-52.6	Non surgical periodontal therapy	Oral health related quality of life	11 out of 13 studies report improved oral health related quality of life, especially in physical disability, psychological discomfort and functional limitation. OHIP-14 improvement varied: 1.52 (12.3%), 0, 4 (57.1%), 7.8 (45.1%), 1.5 (23.8%), 8.9 (61.8%), 15 (68.2%), 0, 0.35(18.9%), 4(23.5%).	1-52 weeks
Kung et al., 2015[27]	Systematic review	India, USA, Brazil, England	Patients with symptomatic irreversible pulpitis undergoing endodontic treatment, mean age 23-38	Articaine, lidocaine	Anesthetic success, adverse events	Articaine and lidocaine have an anesthetic success rate of 24% and 23% in IANB, and 100% and 89% in maxillary infiltration.	n.r.
Lamont et al., 2018[28]	Systematic review	UK	Adult patients with periodontal disease, age 18-92	Routine scaling and polishing	Periodontal health	•Scheduled routine scaling and polishing has no significant impact in a 2-3 year follow-up on gingivitis, probing depths, oral health-related quality of life and plaque. •12 monthly scaling and polishing reduces calculus by 0.19-0.32 compared to no scheduled treatment. •6 monthly scaling and polishing reduced calculus by 0.13 compared to 12 monthly.	2-3 years

Larocca de Geus et al., 2020[29]	Systematic review	n.r.	Patients with irreversible pulpitis, mean age 30	Inferior alveolar block with additives	Anesthetic success	Anesthetic success rates: •73% for articaine •57% for prilocaine •55% for mepivacaine •53% for bupivacaine •12% for lidocaine	n.r.
Leow et al., 2021[30]	Systematic review	Sweden, USA, Germany, Italy, Hungary, Taiwan, Norway	Patients who were treated for periodontitis	Supportive periodontal care	Tooth loss, CAL, PPD, retreatment, oral health related quality of life, health economic outcomes, patient reported outcomes	•9.6% of patients with supportive periodontal care had tooth loss. •24.8% had clinical attachment loss of >2 mm.	5-20 years
Levin and Halperin-Sternfild, 2013[31]	Systematic review	n.r.	n.r.	Tooth preservation and implants	Tooth survival, implant survival	•Patients experience tooth loss rates of 3.6-13.4%. •Implant losses are 0-33.6%. Cumulative survival was 69.6-100%.	15-23 years
Macey et al., 2015[32]	Pragmatic trial	UK	Asymptomatic adult patients, mean age 49.15	Hygiene therapists for screening	Sensitivity, specificity	•Sensitivity for dental caries by professionals is 0.81 and specificity is 0.87. •Sensitivity for periodontal disease by professionals is 0.89 and specificity is 0.75.	n.r.
Manfredi et al., 2016[33]	Systematic review	USA, India, China, Italy, Sweden, Nigeria, Mexico, the Netherlands, Brazil, Germany, Pakistan	Patients who received endodontic treatment, age >10	Single vs multiple visit root canal treatment	Tooth extraction, Radiological failure, postoperative pain, swelling, painkiller use, sinus track/fistula formation, complications	No significant difference between single and multiple visits. •14.6% experienced radiological failure in the multiple visits. •37.9% of patients experience immediate pain. •10.9% experience pain at week 1. •In total, 28.6% experience complications.	1-5 years
Mainkar and Kim, 2018[34]	Systematic review	n.r.	Patients with pulp diagnosis	Pulp testing methods	Diagnostic accuracy	Sensitivity ranged between 0.720-0.975, and specificity between 0.665-0.954, depending on the technique.	n.r.
Miclotte et al., 2018[35]	Retrospective cohort study	Belgium	Age 7-99	Extraction	Complications	Incidence of complications after extraction is 5%.	2 years
Miglani et al., 2021[36]	Systematic review	China, India, Iran, Colombia, USA, Brazil, Pakistan, Saudi Arabia, UK	Patients with symptomatic irreversible pulpitis, age 15-65	Articaine, lidocaine	Anesthetic success	•Articaine has a 64% success rate and lidocaine has a 51.5% success in IANB, •a 71.1% and 60% in buccal infiltration, •70.3% and 46.5% in buccal infiltration after failed IANB, •83.3% and 10% in buccal infiltration combined with intraligamentary injection, •65.9% and 73.2% in supplementary intraligamentary injections after IANB failure, •70.7% and 29.3% in standard IANB and long buccal injections, •54.2% and 39.1% in IANB plus buccal infiltration, •68.7% and 50.3% overall. •For maxillary buccal infiltration it was 84% and 78.1% respectively.	n.r.
Moraes et al., 2024[37]	Randomized controlled trial	Brazil	Adult patients with pulp necrosis	Root canal treatment with and without aPDT and LLLT	Oral health related quality of life	At baseline, patients of the control group had a OHIP-14 score of 18.17. Following root canal treatment, their score was 4.11 after 7 days and 2.09 after 30 days.	1 month
Nagendrababu et al., 2021[38]	Systematic review	Iran, India, Brazil	Patients with irreversible	Anesthesia	Anesthetic success	23.4-63.8% success rate depending on volume.	n.r.

			pulpitis, mean age 26-31.1				
Nagendrababu et al., 2019[39]	Systematic review	n.r.	Patients with irreversible pulpitis receiving endodontic treatment, mean age 25-37.4	Anesthesia (GG, VA, MI NBs vs IANB)	Anesthetic success, adverse effects	•42.0-68.7% success rate depending on type of anesthesia •15.6% experienced swelling, tenderness or numbness	n.r.
Needleman et al., 2014[40]	Systematic review	USA, Sweden, UK, Hong Kong, Germany	Patients with or without gingivitis, age 20-95	Professional mechanical plaque removal	Tooth loss, CAL, gingival inflammation, oral health related quality of life, plaque, probing depths, gingival recession, adverse events, patient reported outcomes	Professional mechanical plaque removal along with oral hygiene instruction appears to reduce plaque and bleeding/inflammation. Oral hygiene instruction without professional mechanical plaque removal is not significantly different. Hence, a lot of the effect could be due to oral hygiene instruction.	2 weeks - 4 years
Ong et al., 2008[41]	Systematic review	Switzerland, Germany, UK, France, USA, Sweden	Patients with or without past treatment for periodontitis, age 20-83	Implants	Implant survival, implant success, peri-implantitis	•Implant survival for past periodontitis patients was reported to be between 79.22-100%. For non-periodontitis patients this was 91.67-100%. •Implant success was 52.4-100% for periodontitis and 79.1-100%. •128/458 implants are affected by bone loss in periodontitis, and 26/158 in non-periodontitis. Peri-implantitis rates were 16-28.6% in periodontitis patients and 5.4-22% in non-periodontitis groups.	3-14 years
Paśnik-Chwalik and Konopka, 2020[42]	Systematic review	UK, Brazil, Jordan, New Zealand, Australia, Sweden, Israel, China, Turkey	Patients with periodontitis, age 18-74	Periodontitis	Oral health related quality of life	Periodontitis decreases oral health related quality of life by 4.2 OHIP-14 points.	n.r.
Patel et al., 2010[43]	Systematic review	Norway, Sweden, UK	Children and adults, age 3-46	Routine dental checks	Caries	One-recall-interval-fits-all visits do not have sufficient evidence for an effect on caries.	n.r.
Riley et al., 2020[44]	Systematic review	Brazil, Sweden, USA, Turkey, India, Egypt, China, Germany, UK, Italy, Japan, Canada, The Netherlands, Mexico, Poland, Finland	Patients with temporomandibular disorders or bruxism, mean age 30-39	Splints	Pain, tooth wear, clicking, mouth opening, headaches quality of life	Splints have little to no effect on pain and no effect on quality of life. Too little evidence is available to conclude effects on tooth wear.	3-12 months
Rius-Bonet et al., 2024[45]	Cross-sectional study	Catalonia	Median age 22	Diagnosis of clinical tooth wear signs	Diagnostic accuracy	Sensitivity ranged between 47-63% and specificity between 71-89%.	n.r.
Sanz-Sánchez et al., 2020[46]	Systematic review	Sweden, Denmark, Brazil, USA, Italy, India	Adult patients with aggressive/chronic periodontitis, mean age 19.7-65	Access flaps, compared to subgingival debridement	Pocket depth and clinical attachment level	Results varied based on pocket depth. Overall, pocket depth reduction was greater for flaps than subgingival debridement (0.71 mm compared to debridement). However, subgingival debridement appears to attain better results in CAL (0.26 mm compared to flaps). Weighted mean effect of access flap on CAL is 0 and of debridement is 0.14 mm.	6-156 months

Sarafidou et al., 2022[47]	Systematic review	n.r.	Patients with periodontitis, age 15-80	Periodontal therapy, tooth extraction and implants	Survival, failure, PD, CAL, complications	•Tooth preservation decreases PD by 1-2.8 mm (10.50% of population), 3-5.5 mm (76.75%), and 5.5-16 mm (9.38%). •1-3 mm clinical attachment gain was found for 25.77%, 3-4.9 mm for 43.97% and 5-7.4 mm for 11.62%. •86.83% experienced no complications. •76.09% of the tooth extraction group experienced no complications in implants, 3 experienced ceramic fractures and 2-60 cases of peri-implantitis. •Survival rates were 94.80-100% in the implant group and 81.80-100% in the retention group. Failure rates were 4.80% in the implant group and 5.11% in the retention group.	5-20 years
Schou et al., 2006[48]	Systematic review	Sweden, Switzerland	Periodontitis and non-periodontitis edentulous patients, age 54-57	Implants	Loss of suprastructure, loss of implant, peri-implantitis, marginal bone loss	•Implant failure rates ranged between 2-8% up to 10 years and there was no statistically significant difference between periodontitis and non-periodontitis patients. •Peri-implantitis occurred in 38% in periodontitis patients and 5% in non-periodontitis patients after 10 years. •Marginal bone loss was 2.2 mm in the periodontitis group and 1.7 mm in the non-periodontitis group after 5 years.	5-10 years
Sequeira-Byron, 2015[49]	Systematic review	Italy	Patients who received endodontic treatment, mean age 48	Direct and indirect restorations for root-filled teeth	Tooth restoration failure	•Both the metal-ceramic crown or direct adhesive composite restoration did not lead to catastrophic failure. •Crowns had a failure rate of 1.85% and composite 5.66%. •Failure rates of the post were 3.70% and 1.89% respectively after 3 years. •There was no significant difference between these.	3 years
Smiley et al., 2015[50]	Systematic review	n.r.	Patients with chronic periodontitis	Scaling and root planing with and without adjunctive therapies	CAL	Scaling and root planing improves CAL by 0.5 mm. Adjunctive therapies improve outcomes by 0.2-0.6 mm	≥6 months
St George et al., 2018[51]	Systematic review	Brazil, India, Germany, Spain, Turkey, UK, Australia, Canada, Iran, Sweden, Lebanon, Saudi Arabia, Finland, Israel, Moldova, Thailand, Pakistan, Republic of Korea	Patients aged 4-81	Anesthesia	Anesthetic success, speed of onset, adverse events	Overall efficacy of anesthesia was moderate: •2% Lidocaine success rate is 30.9%, mean 0-170 mm VAS pain was 34.92 mm in injection, and 18.54 following injection. •Success rate of 4% articaine was 49.4%, and mean pain was 4.74 mm and 6.41 mm higher respectively. •When comparing prilocaine with lidocaine, lidocaine has a success of 76.3% and prilocaine 65.6%. •Comparing articaine 1:100,000 with 1:200,000, the study finds 94% and 79.9% rates respectively, and 1/63 participants experienced urticaria. •Comparing prilocaine with lidocaine, lidocaine has a success of 82.8% and prilocaine 71.2%. •Comparing articaine with bupivacaine, success was 48.1% and 44.6% respectively. •Comparing lidocaine 1:100,000 epinephrine with bupicavaine 1:200,000 epinephrine, success was 61.1% and 47.7%. •Comparing mepivacaine with articaine, rates were 93.1% and 99.6%. •Comparing lidocaine with mepivacaine, rates were 23.1% and 26.8%. •Little to no adverse effects were reported.	n.r.
Su et al., 2016[52]	Systematic review	Brazil, UK, USA, India, China	Patients treated for irreversible	Anesthesia	Anesthetic success, onset time, pain	•Articaine success rates were 85.92%-87.25% and lidocaine were 75.53% - 76.18%. Success rates based on pain were 64.60% - 97.60% for articaine and 53.05% - 87.55%.	n.r.

			pulpitis, age 13-70		intensity, duration, adverse events	•Pain intensity was lower for articaine (0.1 - 1.08) than lidocaine (1.75 - 4.5). •Onset time for articaine (2.66 - 4.9) was lower than lidocaine (3.71 - 5.26). •Adverse events were also lower for articaine (0.68%) than lidocaine (5.52%).	
Su et al., 2011[53]	Systematic review	n.r.	Patients with infected root canals	Single vs multiple visit root canal treatment	Healing rate, pain	•Healing rates for single visit is 80.17% and 79.90% for multiple visits. •Short term pain (immediate - 72 hours) was 25.81% and 37.31% in single and multiple visits respectively. •Medium term pain (7 - 10 days) was 7.80% and 14.77% respectively.	6 months - 5 years
Taha et al., 2023[54]	Randomized controlled trial	Jordan	Mean age 33.53	Root canal treatment vs pulpotomy	Oral health related quality of life	Pulpitis has an OHIP-17 score of 24.8/68. 11 out of 17 items improved after 1 week. 64.1% improvement after 1 year.	1 year
Theodoridis, 2016[55]	Systematic review	Germany, Belgium	Patients treated for aggressive periodontitis and periodontally healthy patients, age 20-51	Implants	Marginal bone loss, survival rate	Marginal bone levels for aggressive periodontitis was 0.9668, 0.3107 for chronic periodontitis, and 0.6365 for periodontally healthy patients after 1 year. After 3 years, this was 1.0732, 0.4732 and 0.6928 respectively. Survival rates were 97.98%, 100% and 100% respectively after 3 years.	3-10 years
Tomson et al., 2022[56]	Systematic review	Iran	Patients with pulpitis, age 9-65	Root canal treatment	Tooth survival, pain, tenderness, swelling, apical radiolucency	•Root canal treatment has a clinical/radiographical success rate of 75.3% after 5 years. •Pain at day 7 occurred in 11.08%.	1-5 years
Trombelli et al., 2014[57]	Systematic review	n.r.	Patients treated for periodontitis	Professional mechanical plaque removal	Tooth loss, clinical and radiographic parameters	•Professional mechanical plaque removal saw tooth loss rates of 0.15 ± 0.14 teeth per year in studies with a follow-up of 5 years. •Studies with a follow-up of 12-14 years reported a tooth loss rate of 0.09 ± 0.08 teeth per year. •Clinical attachment loss after 5-12 years was <1 mm. Limited evidence was found for long-term effects.	3-14 years
Tunkel et al., 2003[58]	Systematic review	n.r.	Patients with periodontitis, age 18-73	Machine-driven and manual subgingival debridement	CAL, BOP, PPD, gingival index, periodontal abscesses, efficiency, adverse events	•Clinical attachment level gain following machine driven debridement ranged between 0.1-0.53, and hand instrumentation between 0.2-0.71. •Probing depth reduction was 0.72-1.40 mm for machine-driven, and 0.75-1.20 mm for hand instrumentation. •Reduction of bleeding on probing was 5.5-64% and -2.2-63% in machine and hand instrumentation respectively.	≥6 months
Van der Weijden and Timmerman, 2003[59]	Systematic review	n.r.	Patients with chronic periodontitis, age 25-68	Subgingival debridement	CAL, BOP, PPD	Subgingival debridement improves probing pocket depth by 1.18 and clinical attachment loss by 0.74 (for pockets ≥ 4 mm).	3-15 months
Van Sambeek et al., 2024[60]	Systematic review	UK, Netherlands, Germany	Adult patients with severe tooth wear, mean age 36.6-44.6	Restorative rehabilitation	Oral health related quality of life	•Counseling and monitoring have no effect on tooth wear patients. •Oral health related quality of life and esthetics improve after restorative treatment. •At baseline, patients had an OHIP-46 score between 0.4 - 2.0. Effects of restorative care were 0.6 (31.6%), 0.7 (35%), 0.55 (30.6%).	1-5 years
Vermeulen et al., 1996[61]	Cohort study	The Netherlands	Patients with missing teeth, mean age 38	Removable partial denture	Survival rate	Survival rates varied depending on definition of survival and follow up (5 vs 10 years). After 5 years, survival ranged between 38-89%. After 10 years, rates ranged between 16-72%.	10 years
Von Troil et al., 2003[62]	Systematic review	n.r.	Patients with periodontitis, age 28-77	Periodontal therapy	Root sensitivity, oral hygiene	31-46% experienced sensitivity after 1 week. Inconclusive root sensitivity evidence.	4-8 weeks
Wang et al., 2018[63]	Observational study	Taiwan	Patients with periodontal	Comprehensive periodontal	Oral health, quality of life	Comprehensive treatment plan for periodontal disease does not have a significant effect on OHIP-14 compared to regular plan.	90 days

			disease, mean age 51.03	disease care plan			
Watt, 2005[64]	Narrative review	n.r.	n.r.	Dental health education	Behavioral and clinical outcomes	Limited evidence of clinically relevant effects	n.r.
Werner et al., 2016[65]	Systematic review	USA, France, Japan, Sweden, Belgium	Patients with caries, periodontitis, gingivitis or peri-implantitis, age 20-68	Psychological interventions compared to education/information	Caries, periodontitis, gingivitis, peri-implantitis	•Gingival index following oral health education was 0.39-0.52, bleeding on probing was 16.2-36, plaque presence was 20.82-54%, and plaque index was 0.32-0.88. Significant differences with psychological interventions were not found. •Baseline GOHAI score was 44.8 and after oral hygiene instructions after 12 months 46.3. For the OHQoL-UK it was 52.4 and 56.5 respectively. No significant differences were found with the psychological intervention group.	3 weeks - 12 months
Wigsten et al., 2020[66]	Cohort study	Sweden	Mean age 51.1	Root canal treatment vs extraction	Quality of life	Extraction has no significant effect on OHIP-14.	1 month
Wong et al., 2020[67]	Umbrella review	n.r.	Adolescents, adults and older patients with and without periodontal disease	Gingivitis, periodontitis, periodontal therapy	Oral health related quality of life	•Periodontal disease is associated with worsened general quality of life. Moreover, periodontal disease is associated to oral health related quality of life, and worsened by more severe stages of periodontitis. Gingivitis was found to have less impact on oral health related quality of life than periodontitis. Physical and psychosocial appear to be most impacted. •Nonsurgical periodontal therapy improves oral health related quality of life more than surgical periodontal therapy. Based on meta-analysis, oral health related quality of life improved by 2.49 points after 1-2 weeks, 8.94 points after 3-4 weeks and 6.49 points after 6-12 weeks.	n.r.
Worthington et al., 2021[68]	Systematic review	UK, Portugal, Turkey, USA, Belgium, Germany, the Netherlands, Sweden	Patients with permanent or adult posterior teeth treated for caries	Direct composite resin and amalgam fillings	Failure rate, adverse evens	Based on a follow-up of 5-7 years, amalgam has a failure rate of 7.5% and composite 14.2%, amalgam has a secondary caries rate of 5.7% and composite 12.2%, and fracture of restoration rates of 1.4% and 1.2% respectively. Neither of these fillings are more likely to impose clinically important harms on patients.	5-7 years
Yactayo-Alburquerque et al., 2021[69]	Systematic review	Brazil, Peru, Chile, Trinidad, Tobago	Patients with oral diseases, age 3-80	Periodontal disease, tooth decay, malocclusion, TDI, temporomandibular dysfunction, salivary gland pathology, cleft lip, cleft palate, edentulism	Oral health related quality of life	•Dental caries increases OHIP-14 by 1.34-3.96 points. •Mild periodontitis increases OHIP-14BR by 18.2 points and severe by 24.1 points.	n.r.
Yeh et al., 2016[70]	Observational study	Taiwan	Patients with caries	Restoration for caries	Oral health related quality of life	Treatment of caries reduced OHIP-14T score by 8.29 points (27% improvement).	2 weeks
Zangrado et al., 2015[71]	Systematic review	n.r.	Patients with periodontitis, age 28-88	Implants	Implant survival, clinical and radiographic peri-implant bone changes	Implant survival was 92.1% after 10 years.	7.9-10 years

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