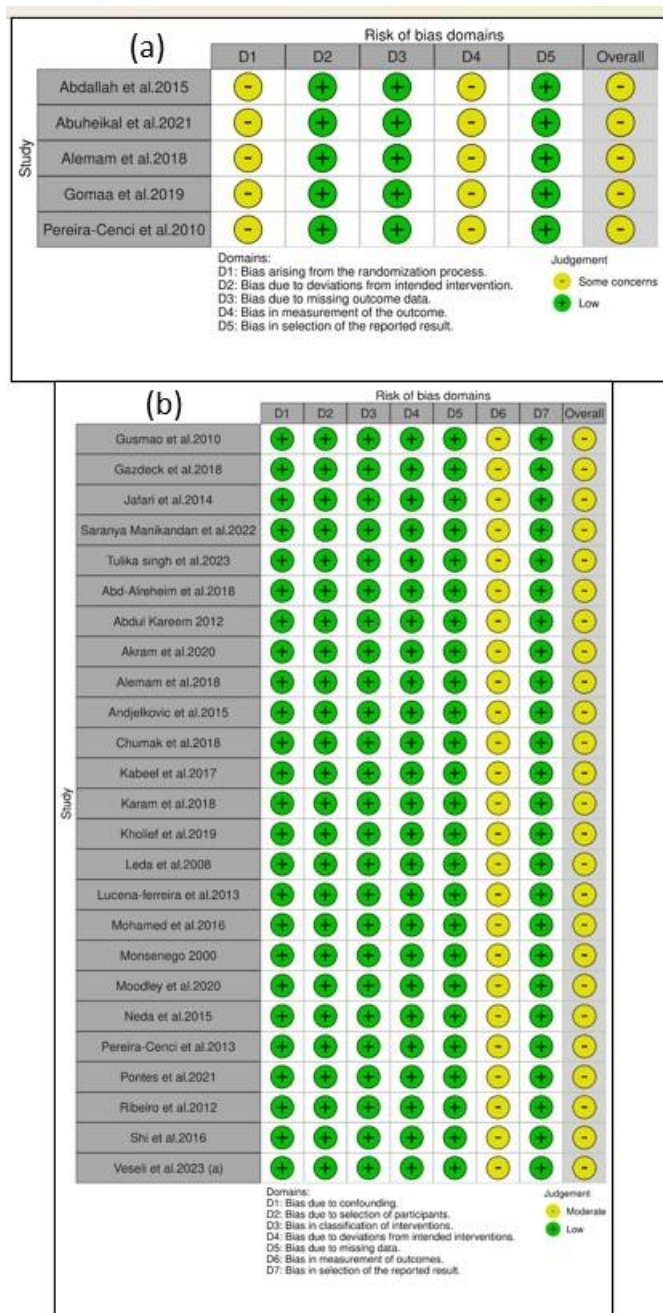
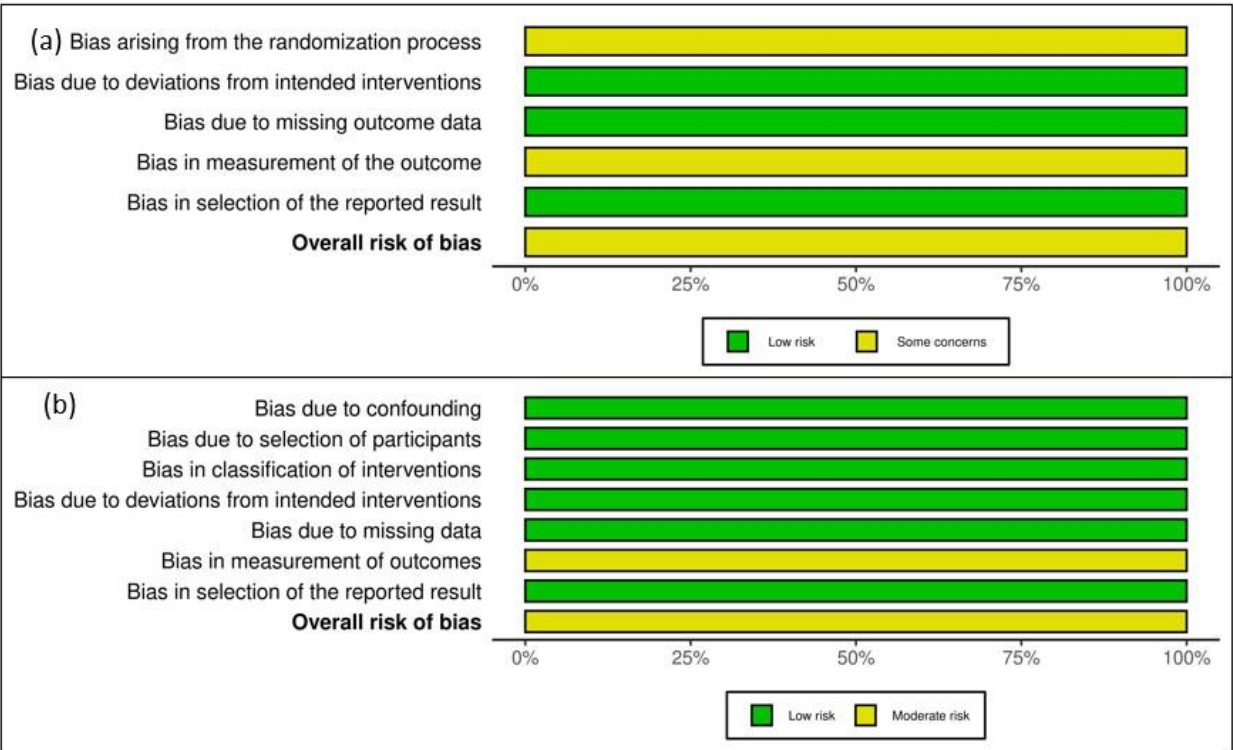


# 1 Supplementary figure 1: Risk of bias assessment (a) ROB 2.0 (b) ROBINS-I

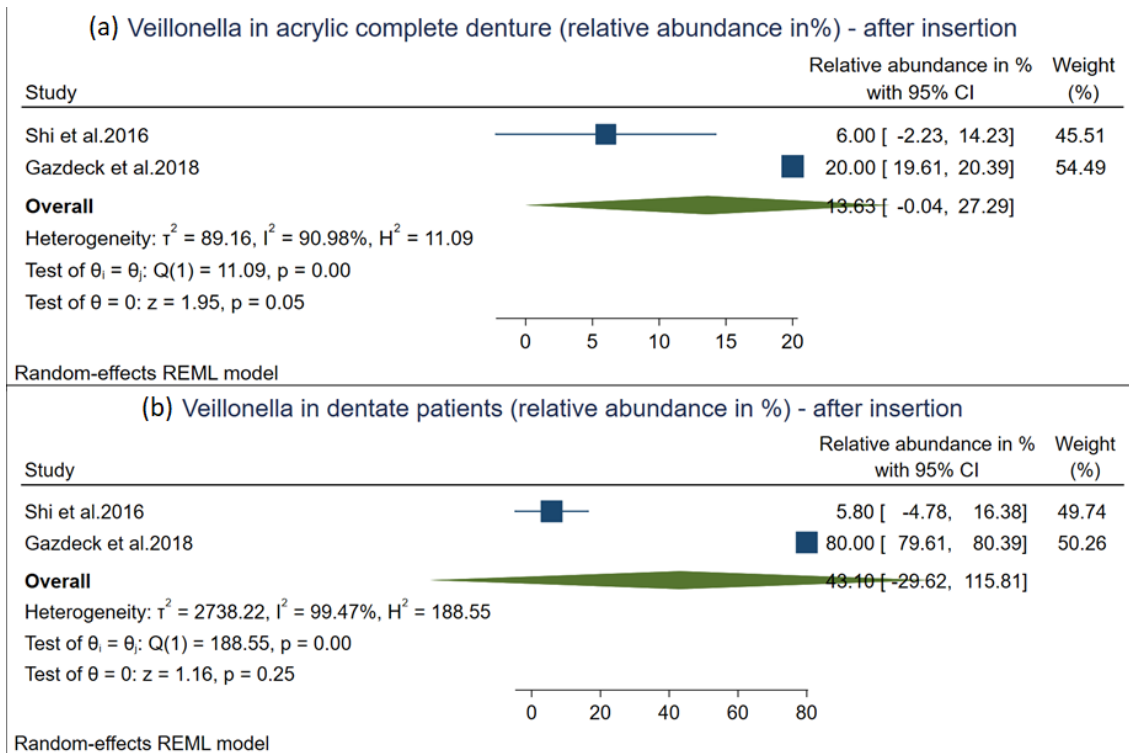


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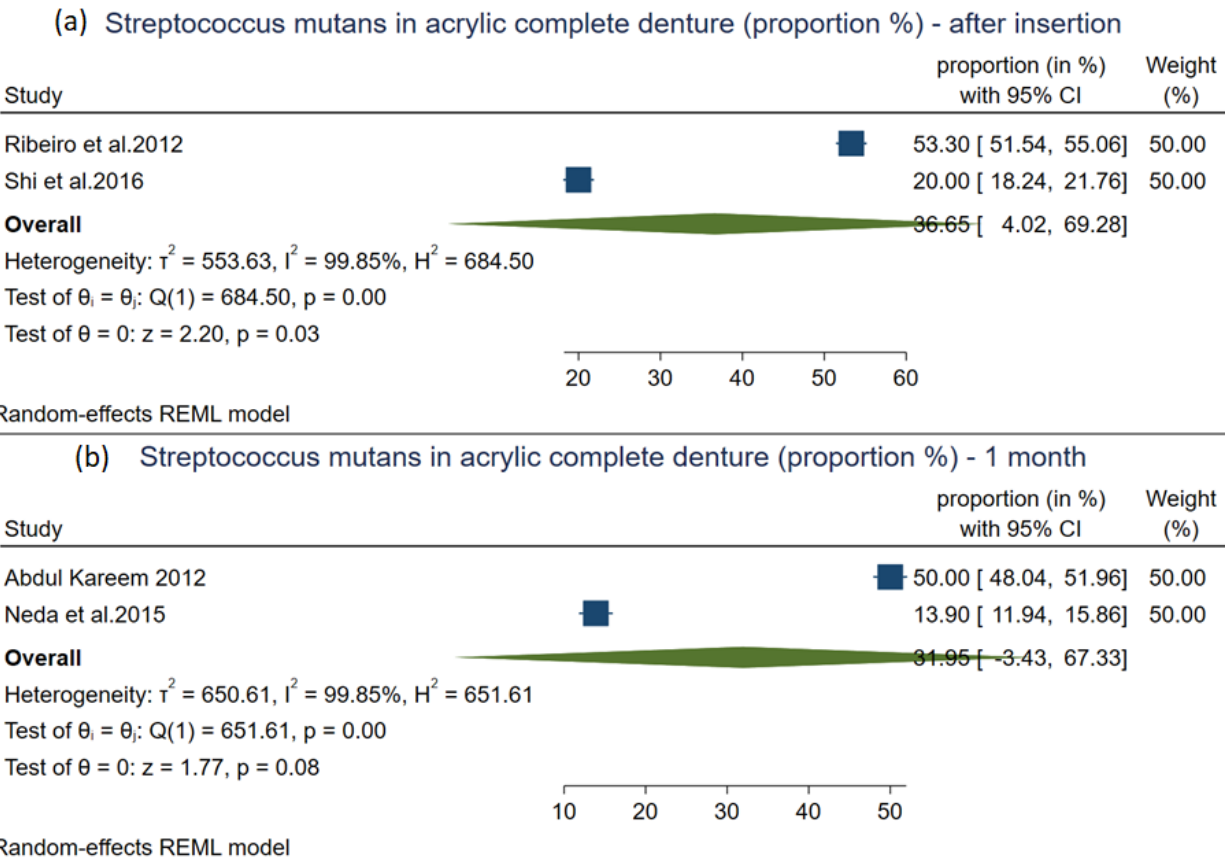
Supplementary figure 2: Risk of bias summary (a) ROB 2.0 (b) ROBINS-I



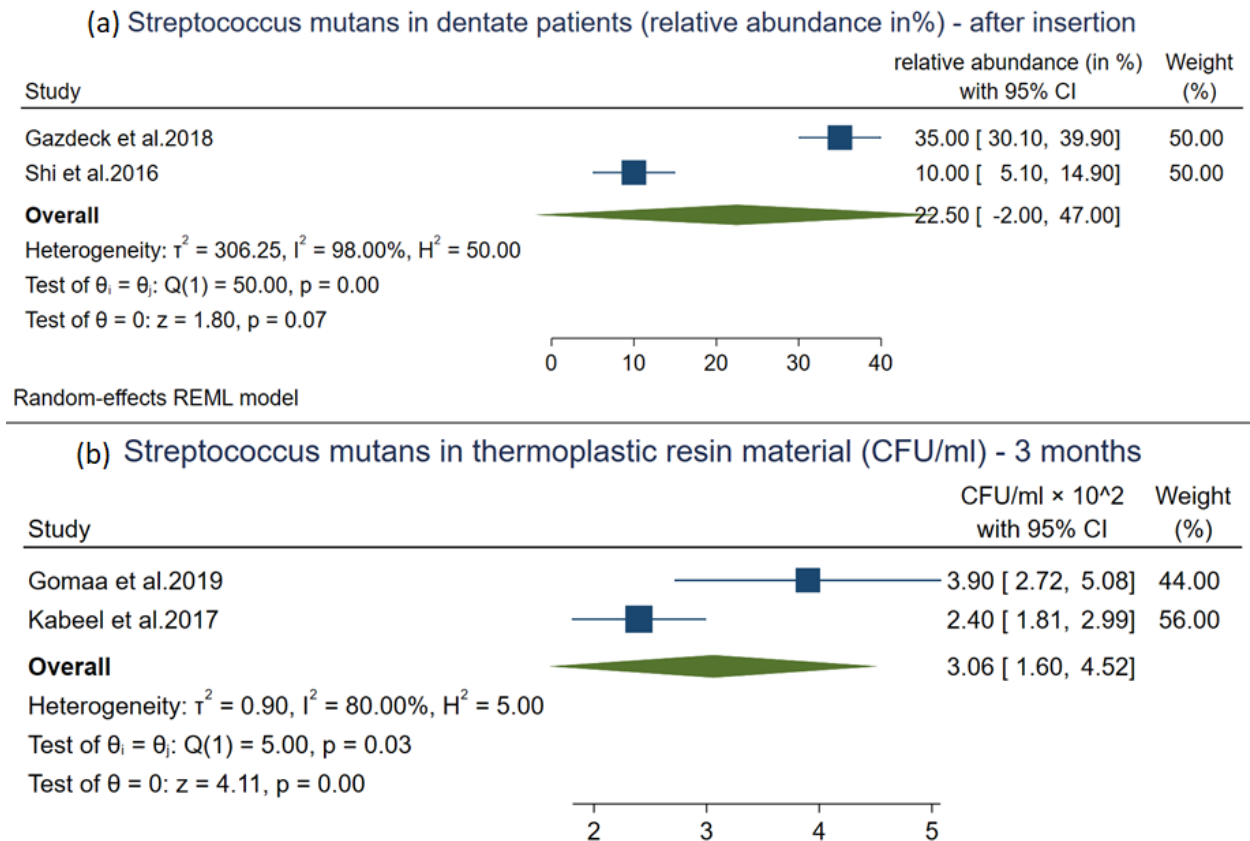
**Supplementary figure 3: Forest plot for Relative abundance (%) of Veillonella (a) Acrylic complete denture patients after insertion (b) dentate patients**



**Supplementary figure 4: Forest plot for proportion (%) of Streptococcus mutans in acrylic complete denture (a) After insertion (b) After one month**



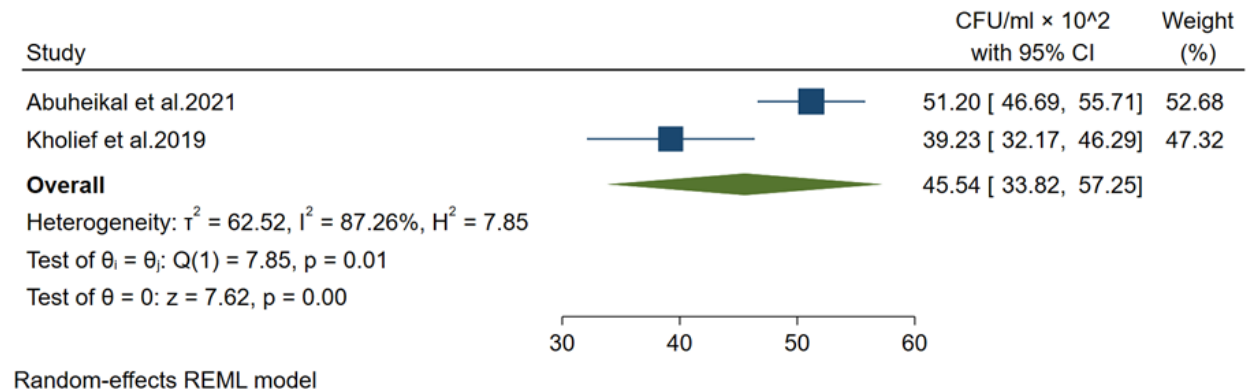
**Supplementary figure 5: Forest plot for Streptococcus mutans (a) Relative abundance (%) in dentate patients at baseline (b) CFU/ml in thermoplastic dentures after three months**



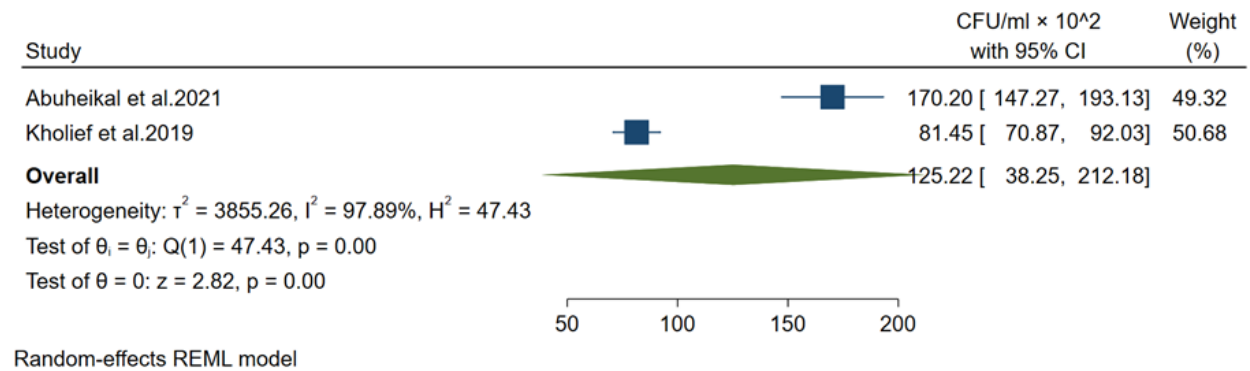
Supplementary figure 6: Forest plot for Streptococcus mutans (CFU/ml) in CAD/CAM dentures (a)

After three months (b) After nine months

(a) Streptococcus mutans in CAD/CAM denture (CFU/ml) - 3 months

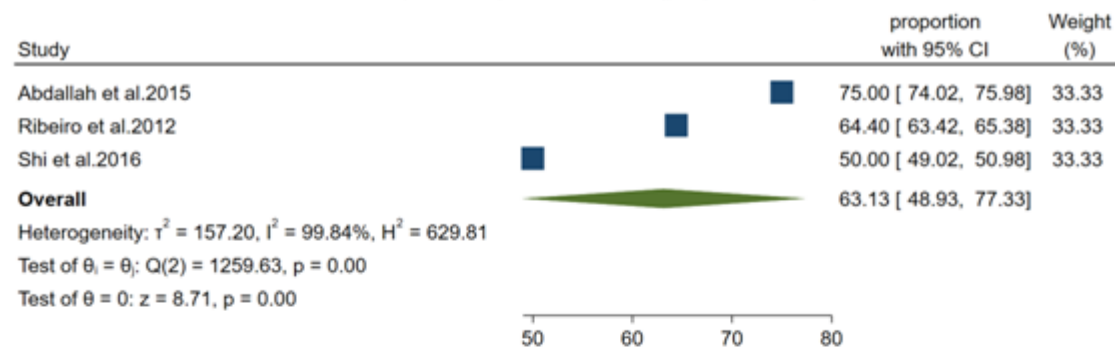


(b) Streptococcus mutans in CAD/CAM denture (CFU/ml) - 9 months

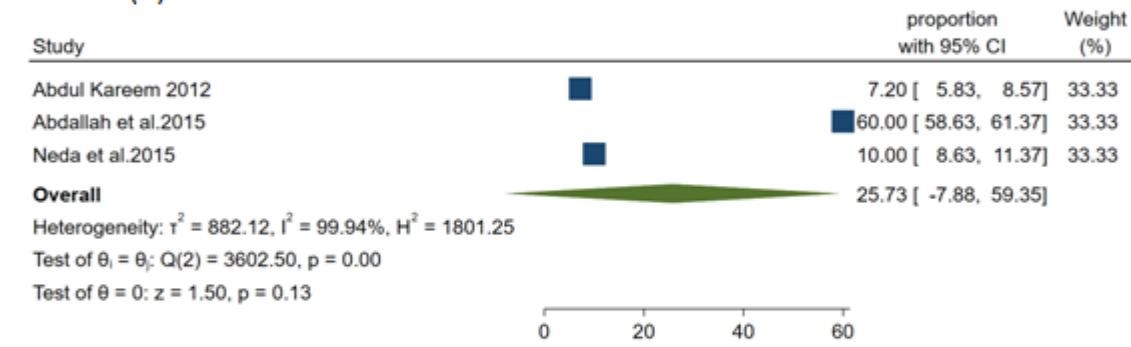


**Supplementary figure 7: Forest plot for Candida albicans (CFU/ml) in acrylic complete dentures (a) Proportion (in %) after insertion (b) Proportion (in %) after one month (c) CFU/ml after three months**

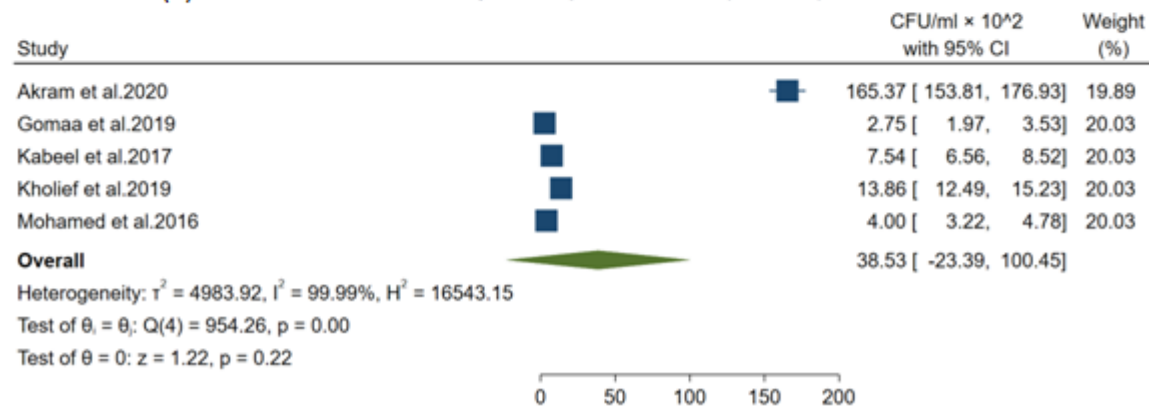
**(a) Candida albicans in acrylic complete denture (proportion %) - after insertion**



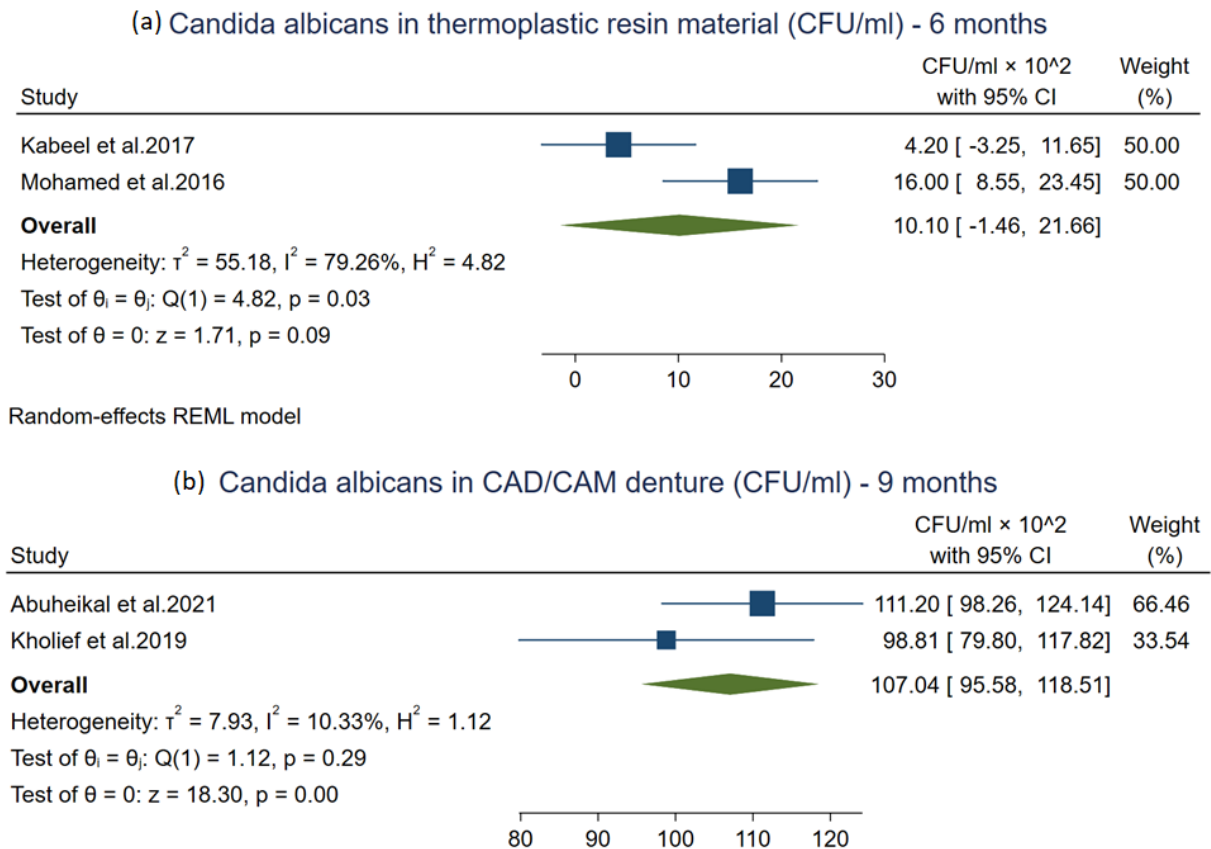
**(b) Candida albicans in acrylic complete denture (proportion %) - 1 month**



**(c) Candida albicans in acrylic complete denture (CFU/ml) - 3 months**

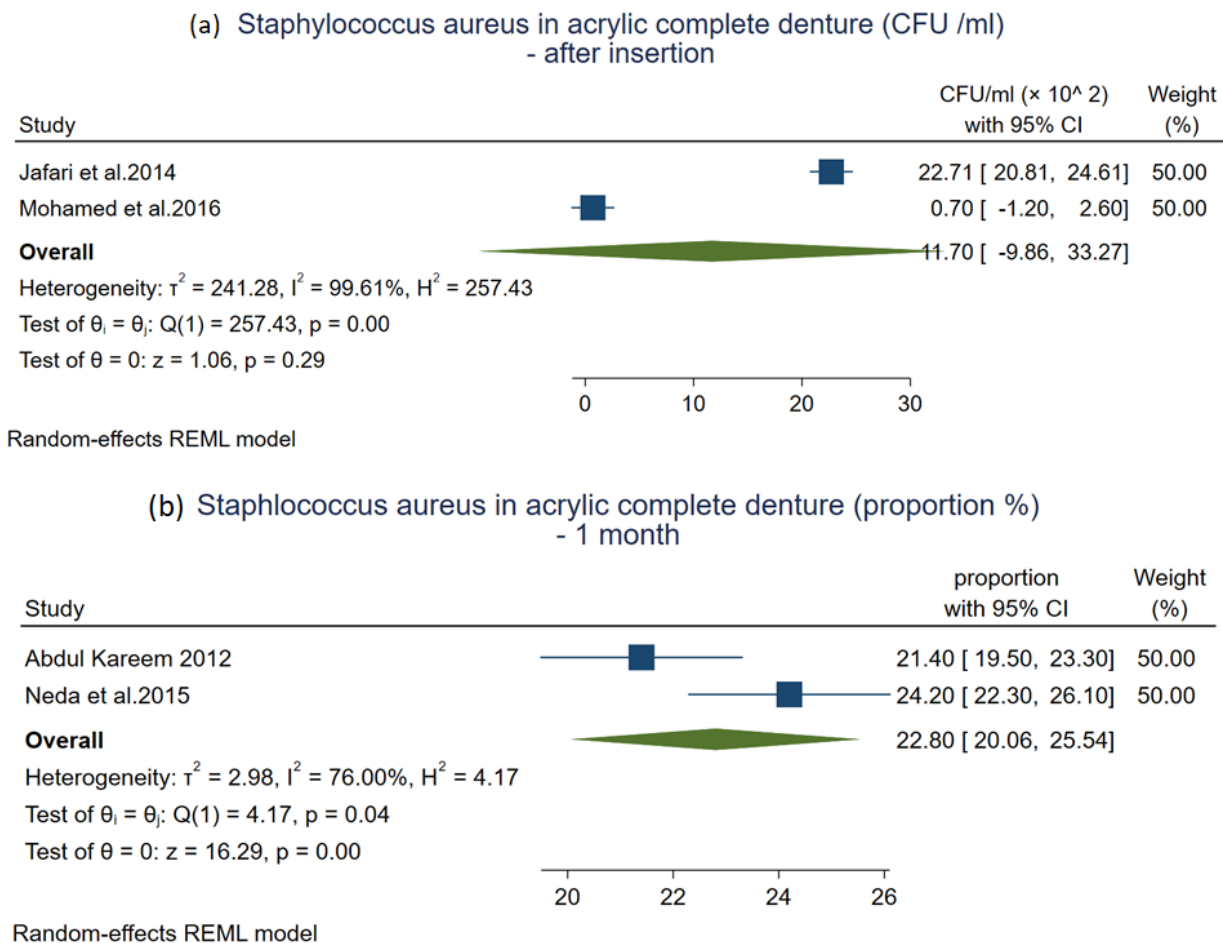


**Supplementary figure 8: Forest plot for Candida albicans (a) (CFU/ml) in thermoplastic dentures after six months (b) (CFU/ml) in CAD/CAM dentures after nine months**

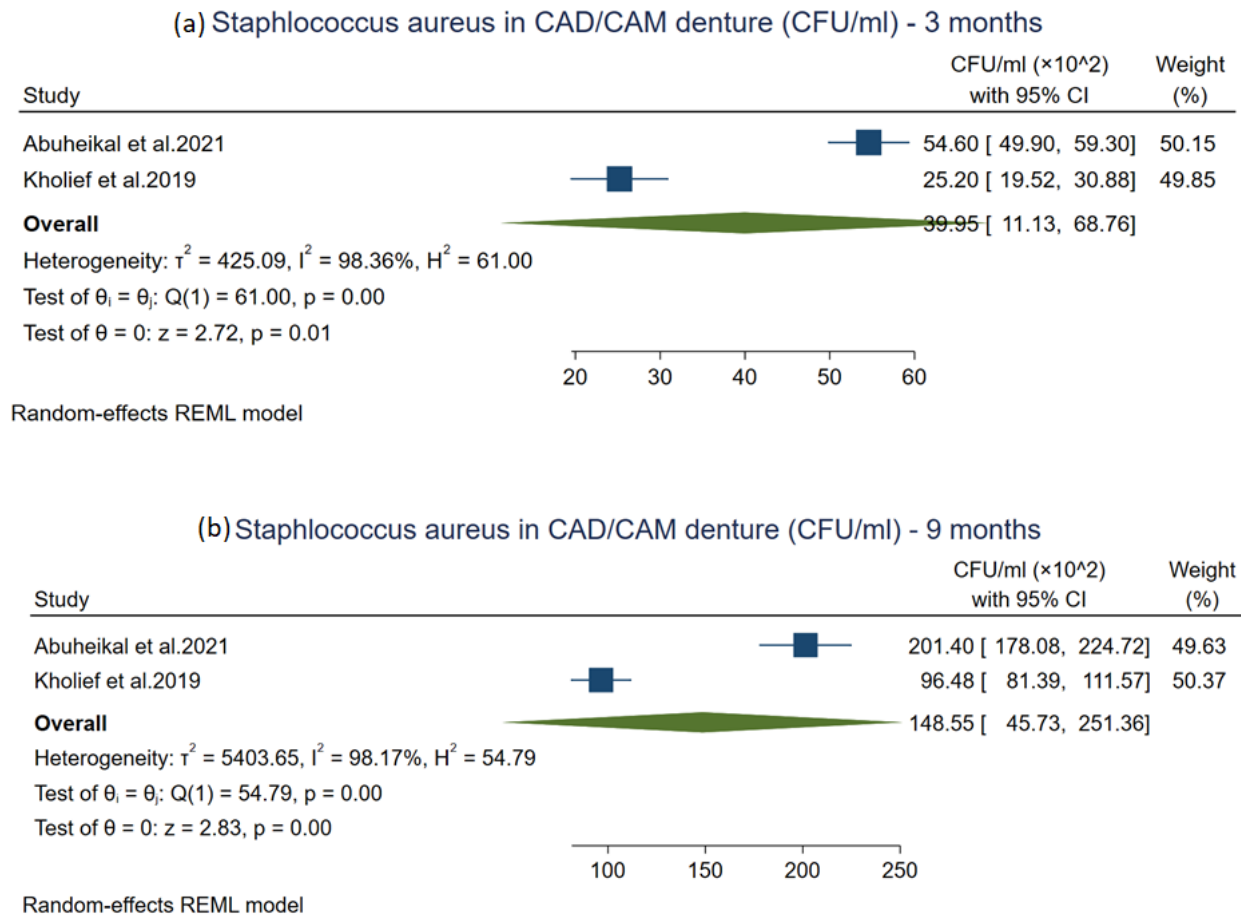




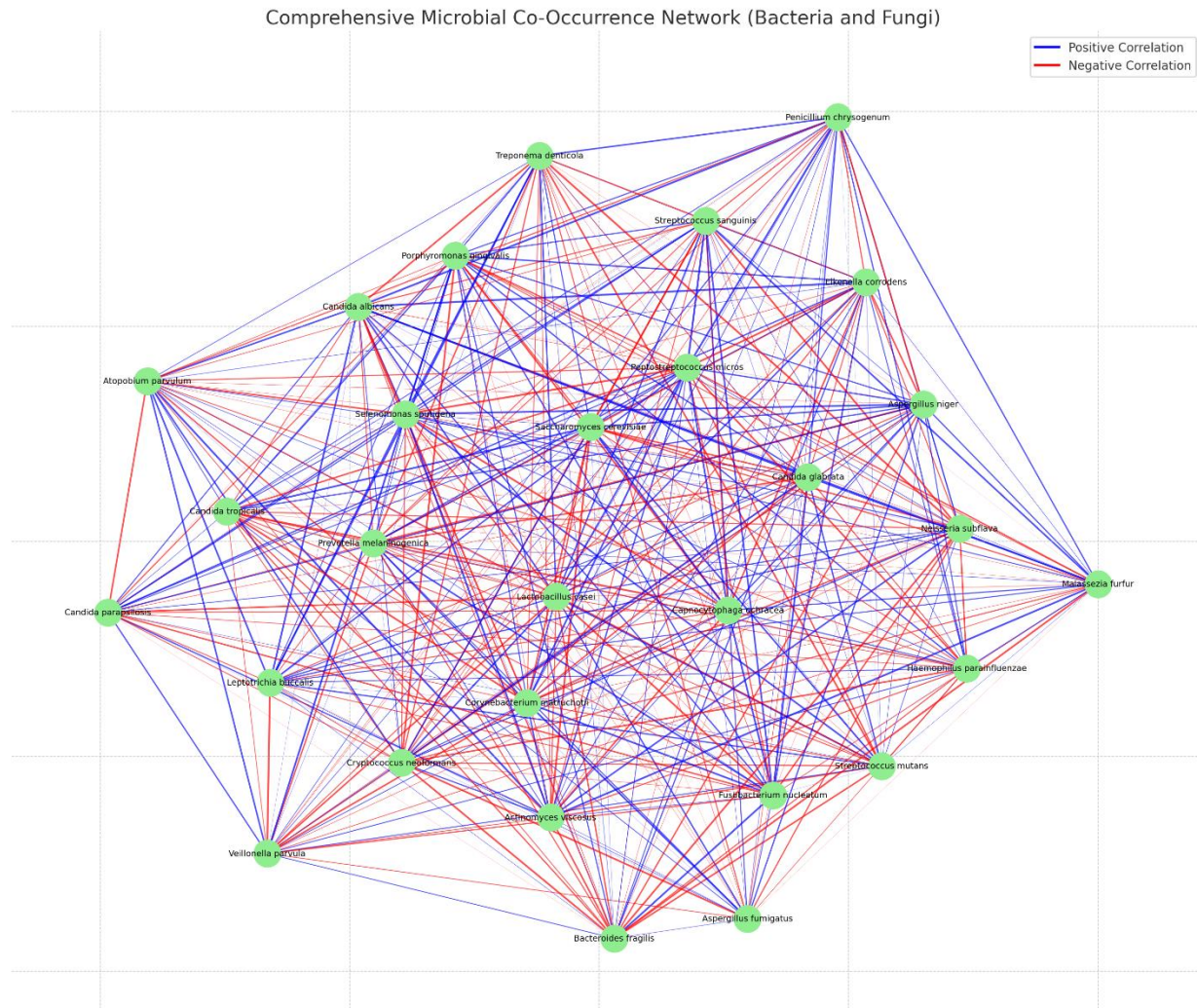
**Supplementary figure 9: Forest plot for Staphylococcus aureus in acrylic complete dentures (a) CFU/ml after insertion (b) Proportion (in %) after one month**



**Supplementary figure 10: Forest plot for Staphylococcus aureus (a) (CFU/ml) in CAD/CAM dentures after three months (b) (CFU/ml) in CAD/CAM dentures after nine months**



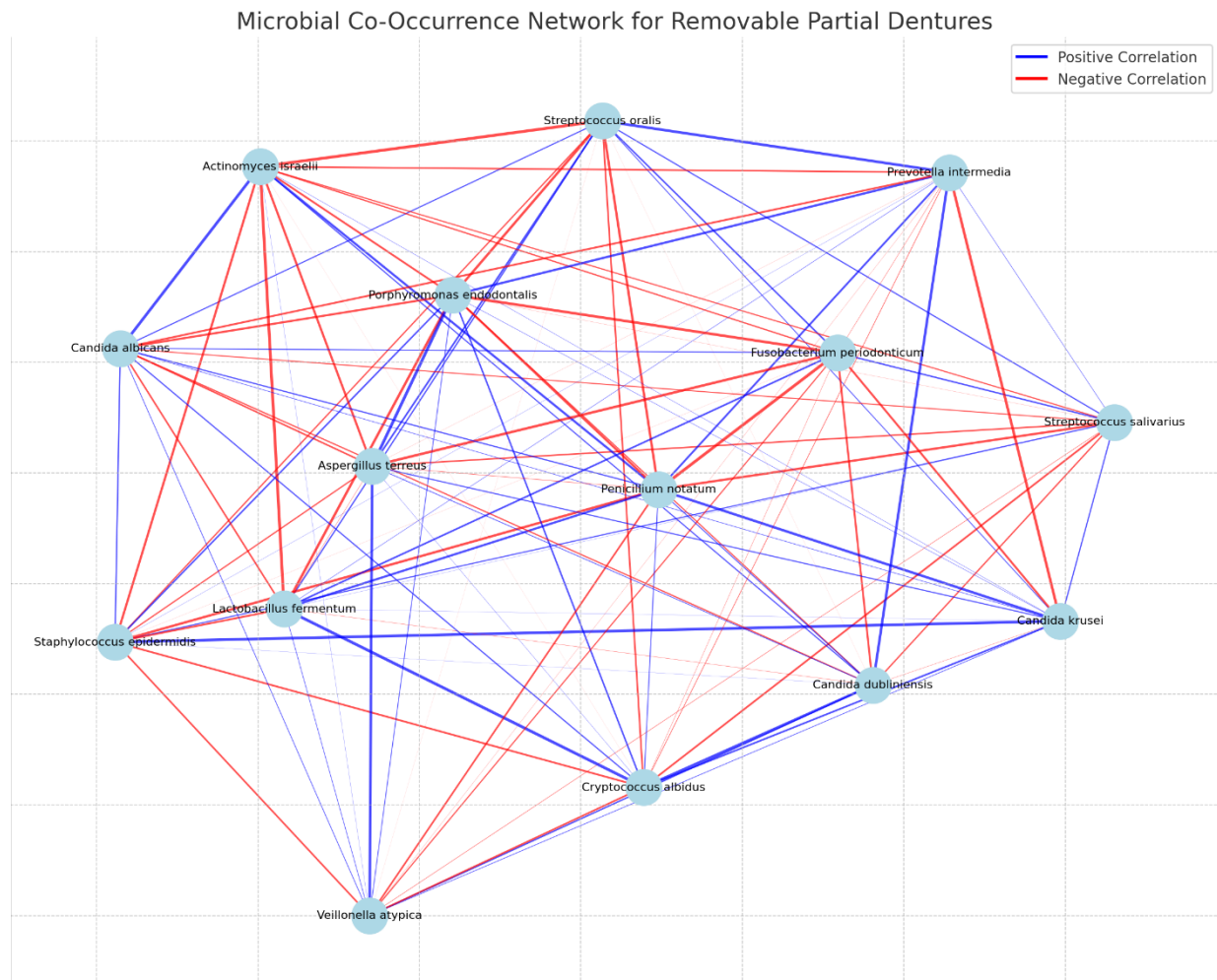
**Supplementary Figure 11: Microbial Co-occurrence network for complete dentures.**



82

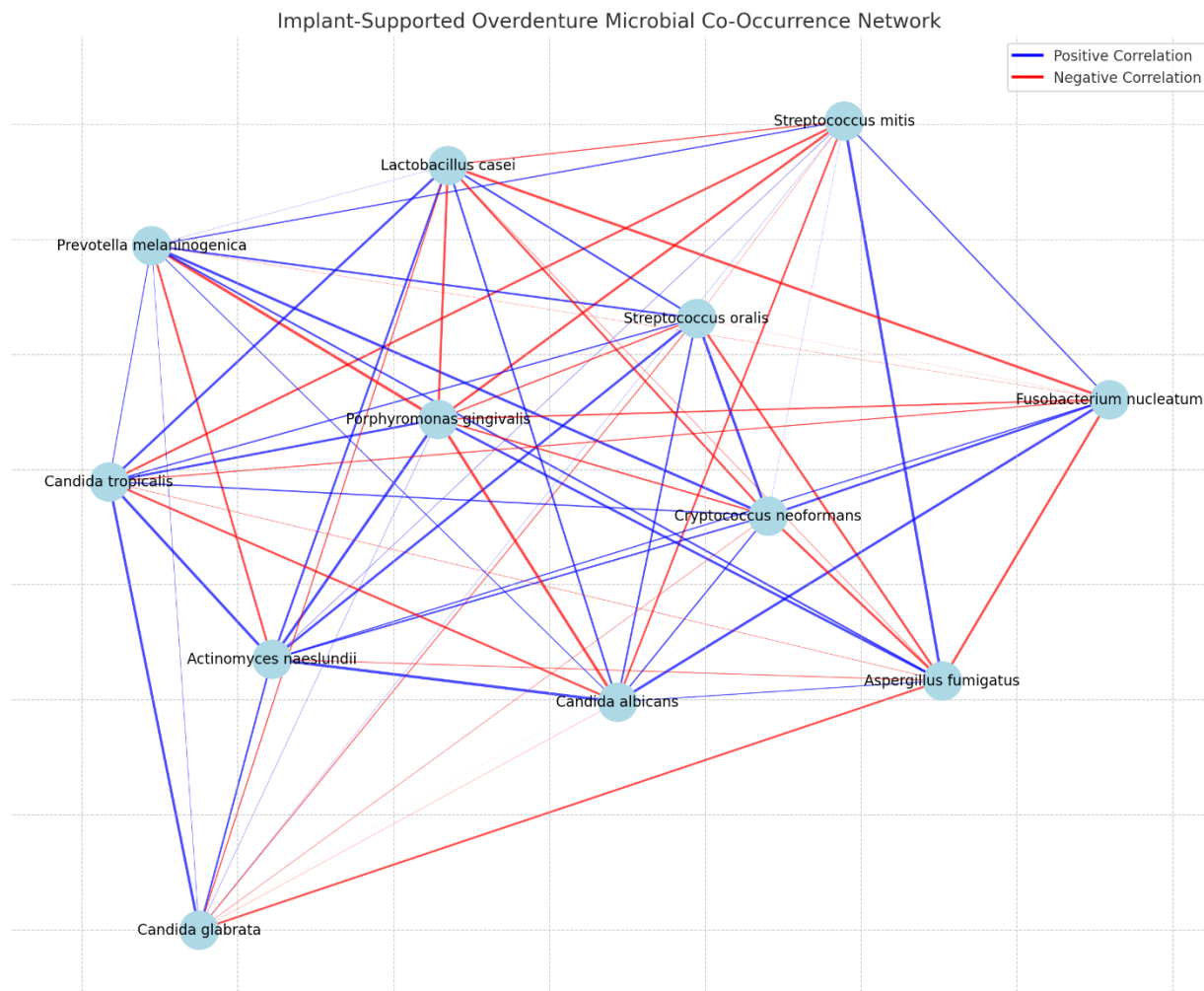
83

84 **Supplementary Figure 12: Microbial Co-occurrence network for removable partial dentures.**



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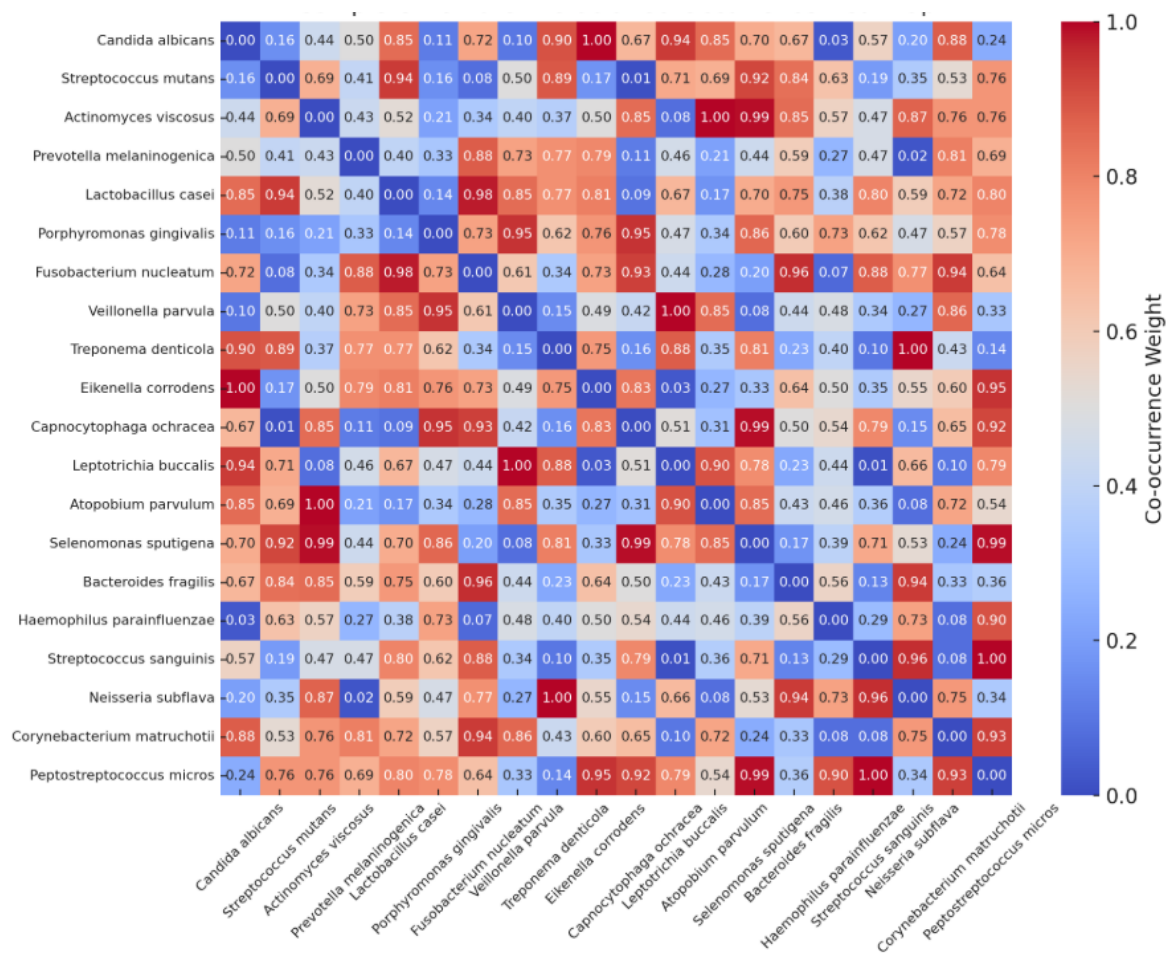
86 **Supplementary Figure 13: Microbial Co-occurrence network for implant supported overdentures.**



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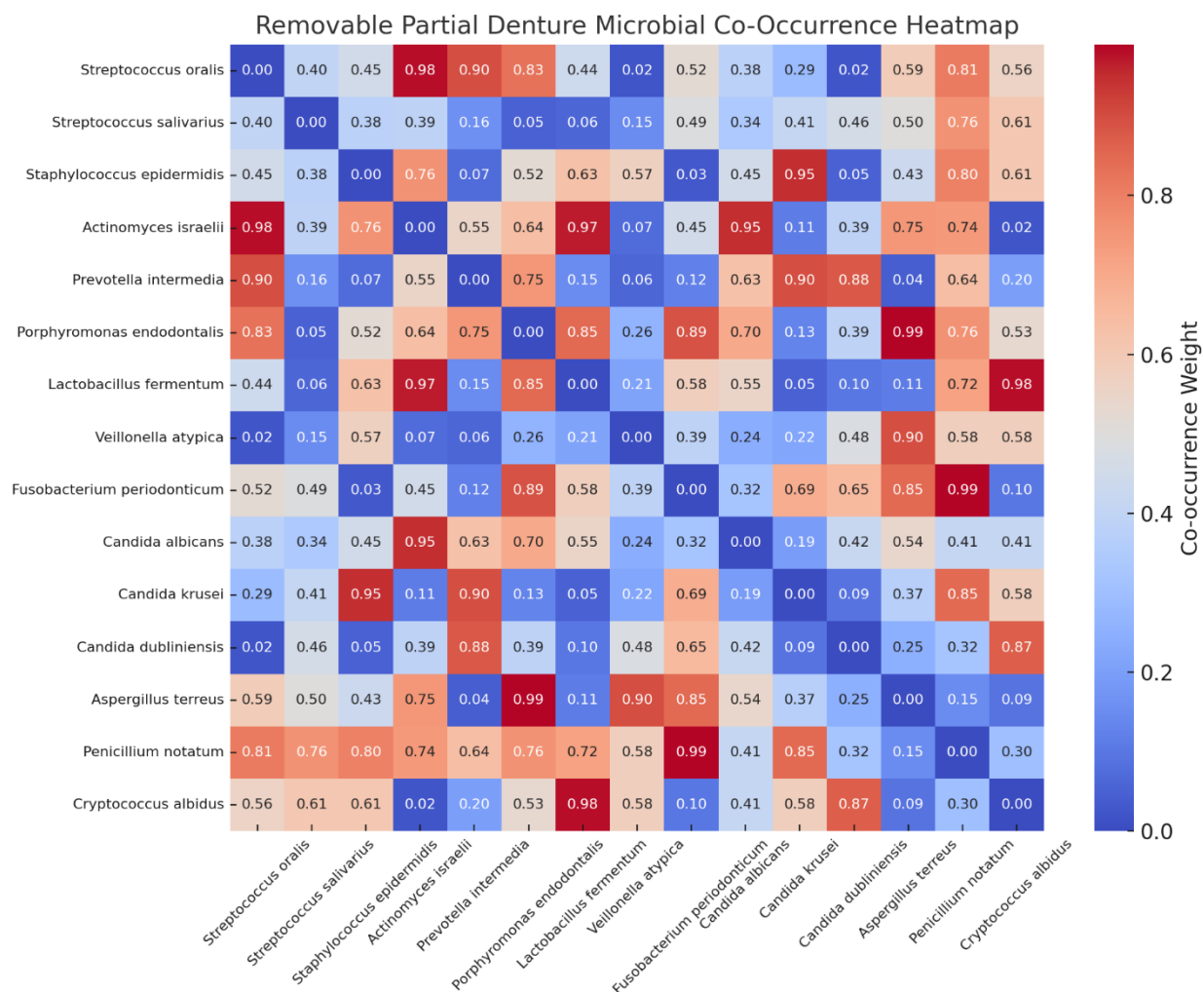
88

89 **Supplementary Figure 14: Heat map for Microbial Co-occurrence in complete denture wearers**



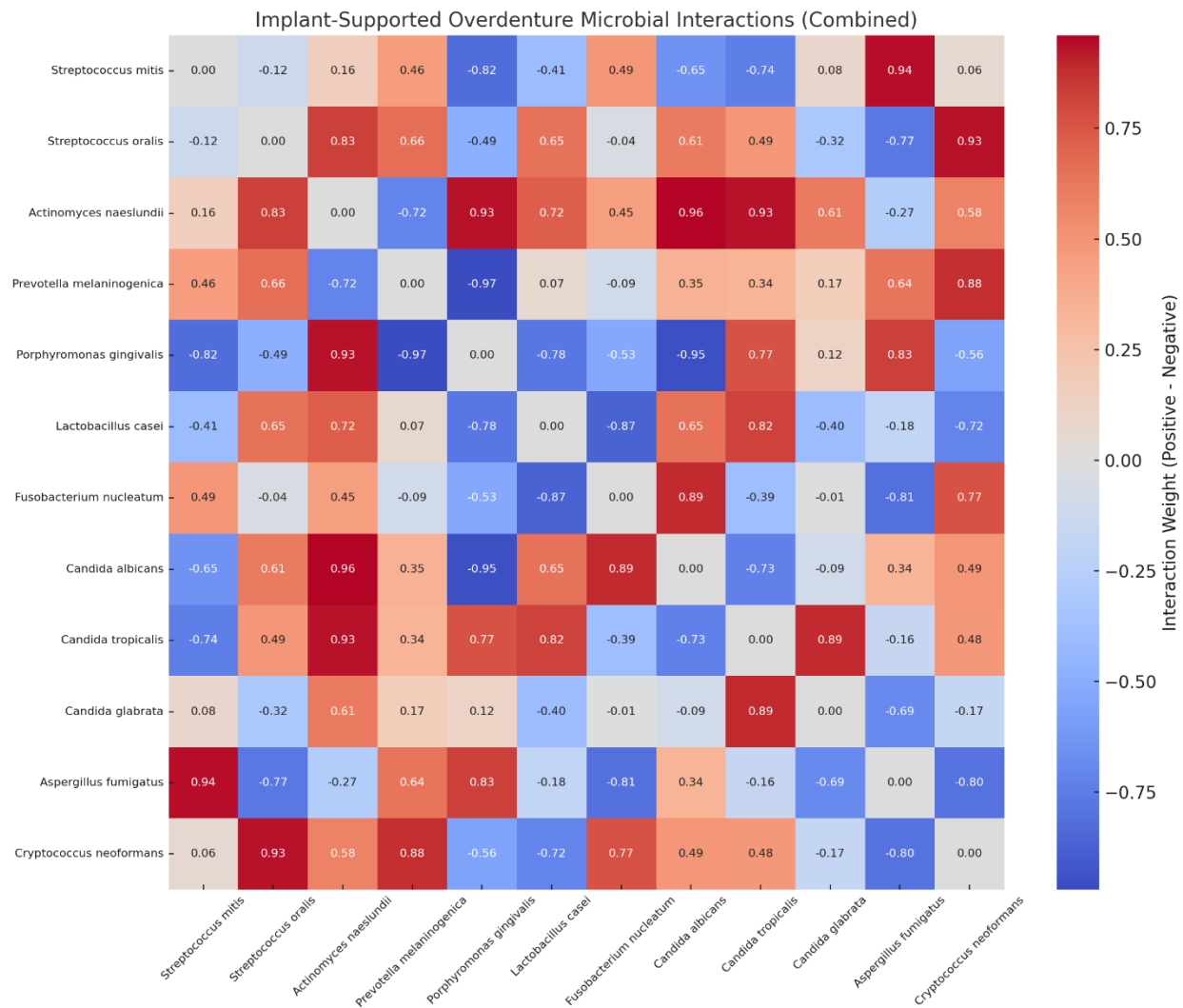
**Supplementary Figure 15: Heat map for Microbial Co-occurrence in removable partial denture wearers**





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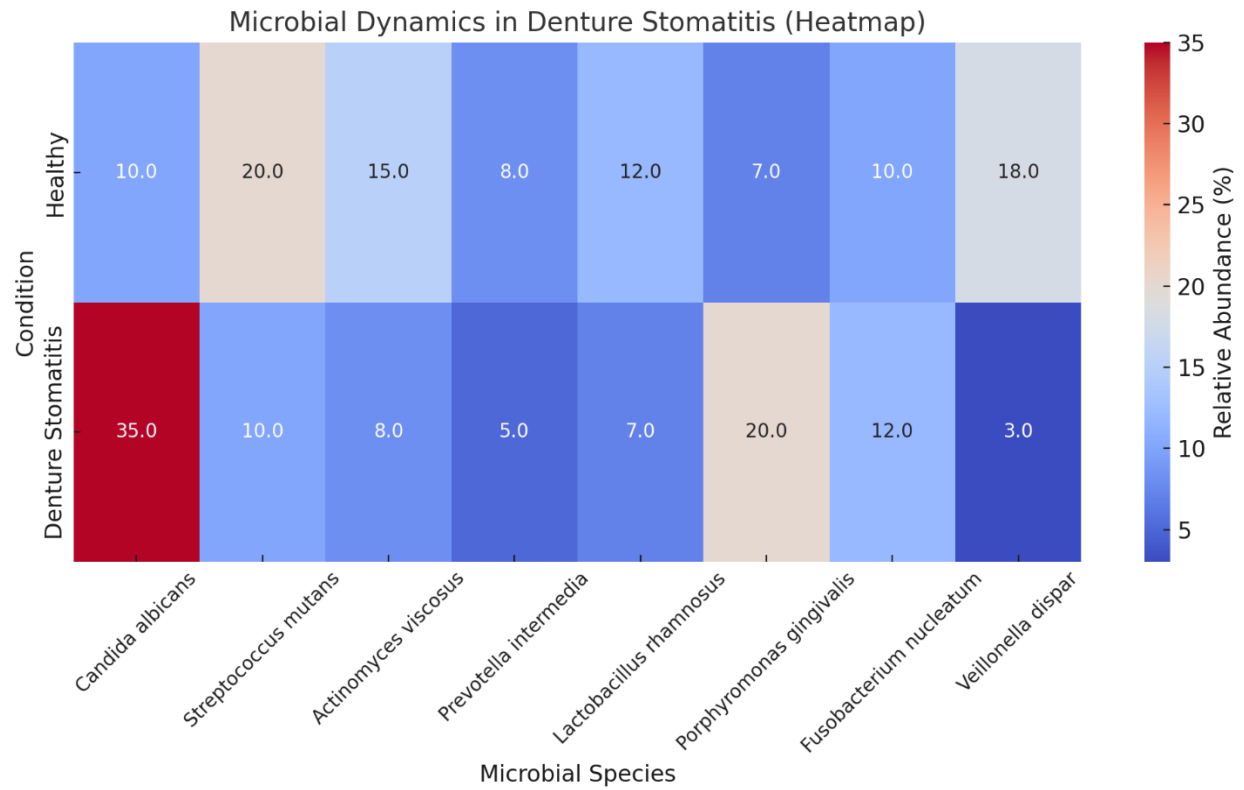
94 **Supplementary Figure 16: Heat map for Microbial Co-occurrence in implant supported overdenture**



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96 **Supplementary Figure 17: Heat map for Microbial dynamics in denture stomatitis**

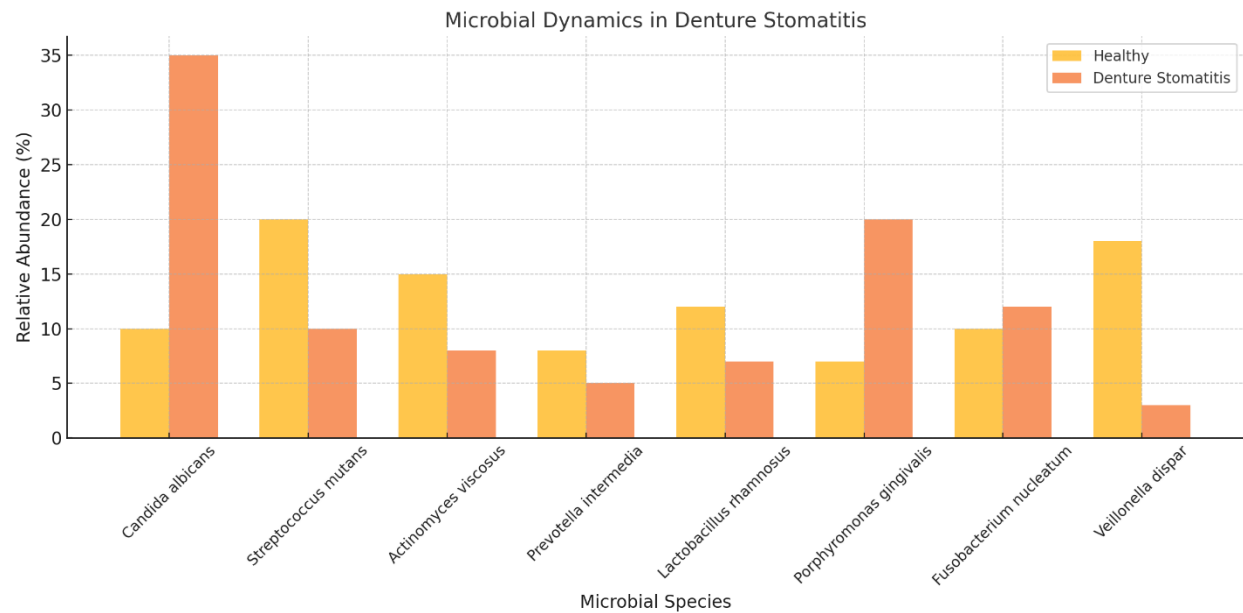




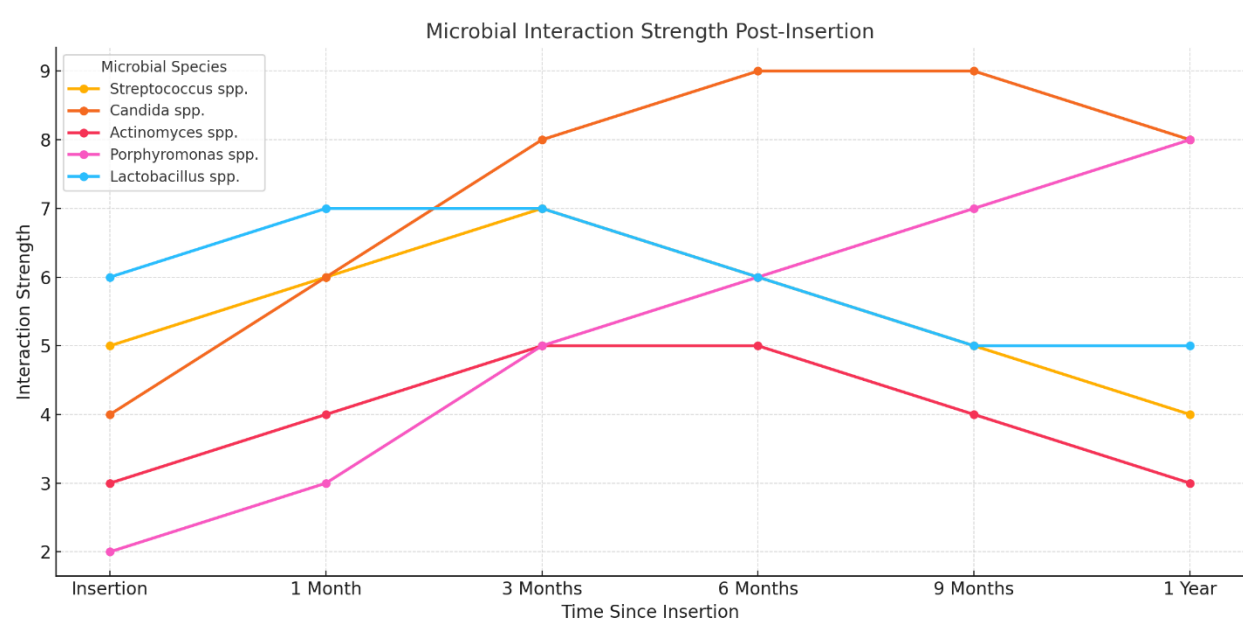
97

98 **Supplementary Figure 18: Bar graph for Microbial dynamics in denture stomatitis vs healthy**  
99 **denture wearers.**

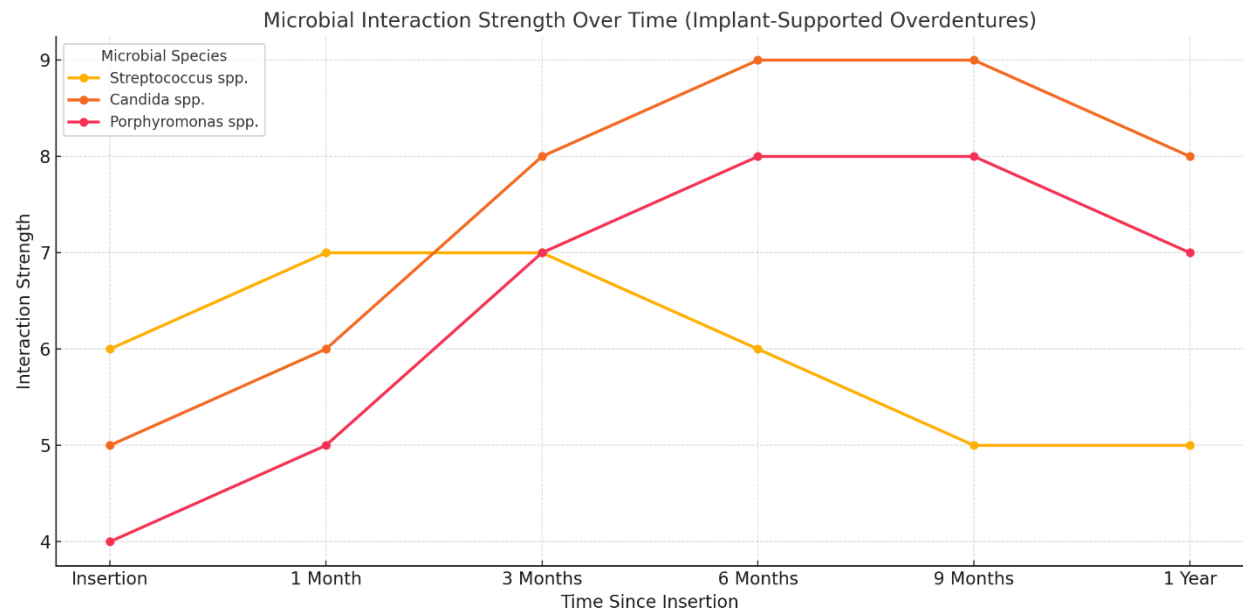
100



**Supplementary Figure 19: Line chart for temporal trends in microbial interaction in denture wearers**



**Supplementary Figure 20: Line chart for temporal trends in microbial interaction in implant supported overdentures**

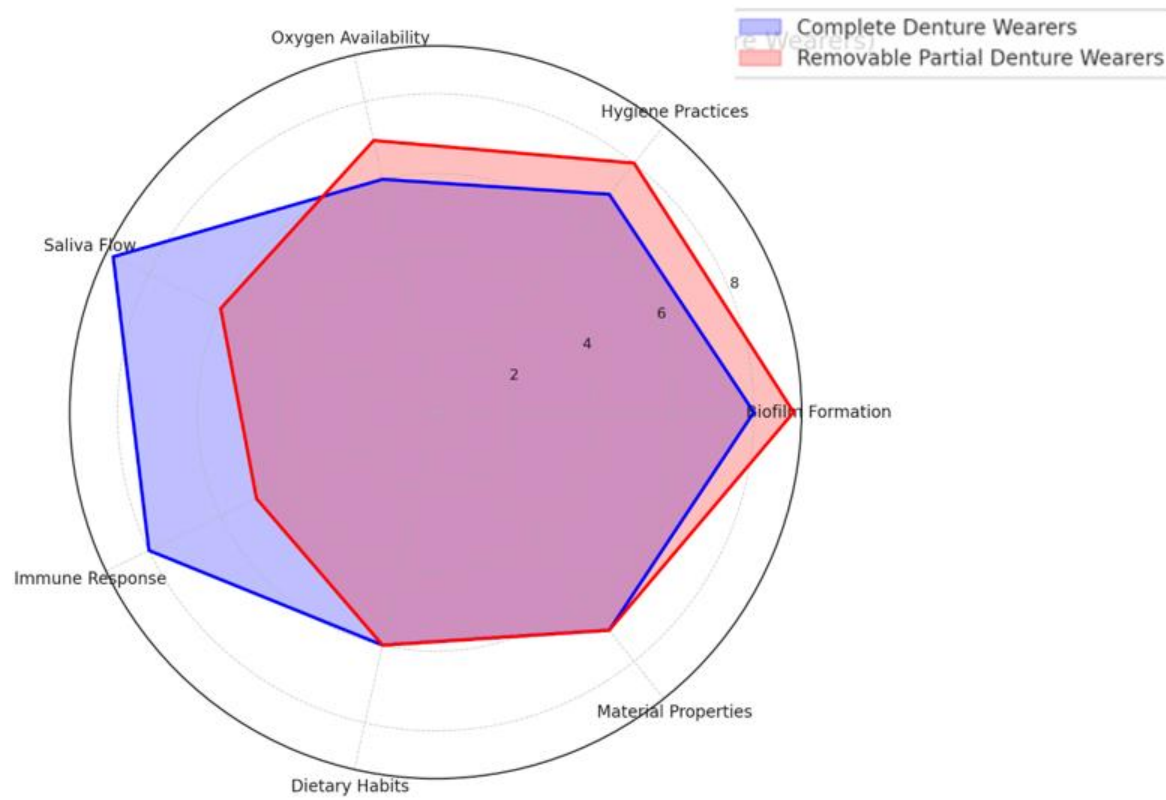


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108

109 **Supplementary Figure 21: Radar plot for Microbial dynamics in denture wearers**

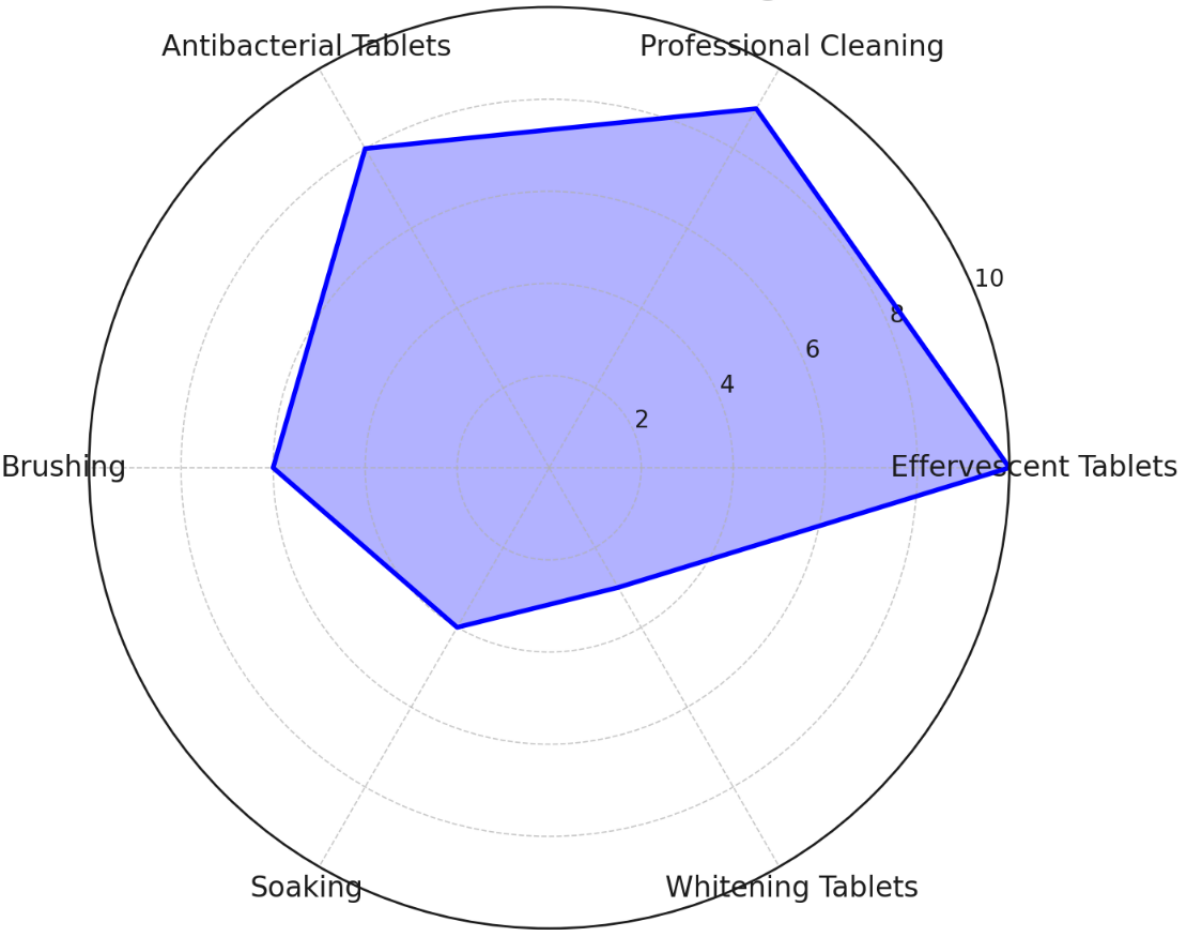
## Factors Influencing Microbial Dynamics (CDs vs. RPDs)



110

111 **Supplementary Figure 22: Radar plot for denture cleaning practices**

Effectiveness of Denture Cleaning Methods



Supplementary table 1: Search strategy

| Database | Search string                                                                                                                  | Number of hits(N) |
|----------|--------------------------------------------------------------------------------------------------------------------------------|-------------------|
|          | ("edentulate"[All Fields] OR "edentulation"[All Fields] OR "edentulism"[All Fields] OR "edentulousness"[All Fields] OR "mouth, |                   |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| PubMed | <p>edentulous"[MeSH Terms] OR</p> <p>("mouth"[All Fields] AND "edentulous"[All Fields]) OR "edentulous mouth"[All Fields]</p> <p>OR "edentulous"[All Fields] OR</p> <p>("edentulate"[All Fields] OR</p> <p>"edentulation"[All Fields] OR</p> <p>"edentulism"[All Fields] OR</p> <p>"edentulousness"[All Fields] OR "mouth, edentulous"[MeSH Terms] OR</p> <p>("mouth"[All Fields] AND "edentulous"[All Fields]) OR "edentulous mouth"[All Fields]</p> <p>OR "edentulous"[All Fields]) OR "complete edentulousness"[All Fields] OR "no tooth"[All Fields] OR "loss of teeth"[All Fields] OR "completely edentulous"[All Fields] OR ("anodontia"[MeSH Terms] OR "anodontia"[All Fields]) OR "partial edentulousness"[All Fields] OR "partial edentulous"[All Fields] OR "absence of tooth"[All Fields] OR "absence of teeth"[All Fields] OR ("teeth s"[All Fields] OR "teeths"[All Fields] OR "tooth"[MeSH Terms] OR "tooth"[All Fields] OR</p> | 7 |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | "teeth"[All Fields] OR "tooth s"[All Fields]<br>OR "tooths"[All Fields])) AND ("complete<br>denture*"[All Fields] OR "CD"[All Fields]<br>OR (("maxilla"[MeSH Terms] OR<br>"maxilla"[All Fields] OR "maxillary"[All<br>Fields] OR "maxillaries"[All Fields] OR<br>"maxillaris"[All Fields]) AND<br>("mandible"[MeSH Terms] OR<br>"mandible"[All Fields] OR<br>"mandibular"[All Fields] OR<br>"mandibulars"[All Fields]) AND<br>"denture*"[All Fields]) OR "complete<br>denture prosthesis"[All Fields] OR<br>"complete denture prostheses"[All Fields]<br>OR "RPD"[All Fields] OR "removable<br>partial denture*"[All Fields] OR "partial<br>denture"[All Fields]) AND ("PMMA"[All<br>Fields] OR "Polymethyl Metha acrylate"[All<br>Fields] OR "acrylic"[All Fields] OR<br>"acrylate resin"[All Fields]) AND<br>("microbiome s"[All Fields] OR<br>"microbiomic"[All Fields] OR<br>"microbiomics"[All Fields] OR |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|



|  |                                              |  |
|--|----------------------------------------------|--|
|  | "microbiota"[MeSH Terms] OR                  |  |
|  | "microbiota"[All Fields] OR                  |  |
|  | "microbiome"[All Fields] OR                  |  |
|  | "microbiomes"[All Fields] OR                 |  |
|  | "microorganism*"[All Fields] OR              |  |
|  | "microbe*"[All Fields] OR                    |  |
|  | ("microbiota"[MeSH Terms] OR                 |  |
|  | "microbiota"[All Fields] OR                  |  |
|  | "microbiotas"[All Fields] OR "microbiota     |  |
|  | s"[All Fields] OR "microbiotae"[All Fields]) |  |
|  | OR "oral microflora"[All Fields] OR          |  |
|  | "PCR"[All Fields] OR "Polymerase Chain       |  |
|  | Reaction"[All Fields] OR "Next-generation    |  |
|  | sequencing"[All Fields] OR "NGS"[All         |  |
|  | Fields] OR ("illumine"[All Fields] AND       |  |
|  | ("methods"[MeSH Terms] OR                    |  |
|  | "methods"[All Fields] OR "technique"[All     |  |
|  | Fields] OR "methods"[MeSH Subheading]        |  |
|  | OR "techniques"[All Fields] OR "technique    |  |
|  | s"[All Fields])) OR "sanger technique"[All   |  |
|  | Fields] OR "single-cell sequencing"[All      |  |
|  | Fields] OR ("multi cell"[All Fields] AND     |  |
|  | ("base sequence"[MeSH Terms] OR              |  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | ("base"[All Fields] AND "sequence"[All Fields]) OR "base sequence"[All Fields] OR "sequence"[All Fields] OR "sequences"[All Fields] OR "sequence analysis"[MeSH Terms] OR ("sequence"[All Fields] AND "analysis"[All Fields]) OR "sequence analysis"[All Fields] OR "sequencing"[All Fields] OR "sequence s"[All Fields] OR "sequenceable"[All Fields] OR "sequenced"[All Fields] OR "sequenceing"[All Fields] OR "sequencer"[All Fields] OR "sequencers"[All Fields] OR "sequencies"[All Fields] OR "sequencings"[All Fields])) OR "genome sequencing"[All Fields] OR "DNA"[All Fields] OR "16s rRNA"[All Fields] OR "16s rDNA"[All Fields]) |  |
|  | (Edentulous OR edentulism OR "complete edentulousness" OR "no tooth" OR "loss of teeth" OR "completely edentulous" OR anodontia OR "partial edentulousness" OR "partial edentulous" OR "absence of tooth"                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Lilacs | OR "absence of teeth" OR "no teeth") AND ("Complete Denture*" OR "CD" OR "maxillary and Mandibular denture*" OR "complete denture prosthesis" OR "complete denture prostheses" OR "RPD" OR "removable partial denture*" OR "partial denture") AND ("PMMA" OR "Polymethyl Metha acrylate" OR "acrylic" OR "acrylate resin") AND (Microbiome OR microorganism* OR microbe* OR microbiota OR "oral microflora" OR "PCR" OR "Polymerase Chain Reaction" OR "Next-generation sequencing" OR "NGS" OR "illumine technique" OR "sanger technique" OR "single-cell sequencing" OR "multi-cell sequencing" OR "genome sequencing" OR "DNA" OR "16s rRNA" OR "16s rDNA") | 0 |
|        | TITLE-ABS-KEY ( ( Edentulous OR adventurism OR "complete adventurousness" OR "not tooth" OR "loss off teeth" OR "completely edentulous" OR anodontia OR "partial adventurousness" OR                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Scopus | <p>"partial edentulous" OR "absence off tooth"</p> <p>OR "absence off teeth" OR "not teeth" )</p> <p>AND ( "Complete Denture*" OR "cad" OR</p> <p>"maxillary and Mandibular denture*" OR</p> <p>"complete denture prosthesis" OR "complete</p> <p>denture prostheses" OR "RPD" OR</p> <p>"removable partial denture*" OR "partial</p> <p>denture" ) AND ( "PMMA" OR "polymethyl</p> <p>metham acrylate" OR "acrylic" OR "acrylate</p> <p>resin" ) AND ( microsome OR</p> <p>microorganism* OR microbe* OR</p> <p>macrobiota OR "oral microfflora" OR</p> <p>"PCR" OR "Polymerase Chain Reaction"</p> <p>OR "Next-generation sequencing" OR</p> <p>"NGS" OR "illumine technique" OR "sanger</p> <p>technique" OR "single-cell sequencing" OR</p> <p>"multi-cell sequencing" OR "genotme</p> <p>sequencing" OR "DNA" OR "16s rRNA"</p> <p>OR "16s rDNA" ) )</p> | 4 |
|        | <p>(Edentulous OR edentulism OR "complete</p> <p>edentulousness" OR "no tooth" OR "loss of</p> <p>teeth" OR "completely edentulous" OR</p> <p>anodontia OR "partial edentulousness" OR</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Embase | <p>"partial edentulous" OR "absence of tooth" OR "absence of teeth" OR "no teeth") AND ("Complete Denture*" OR "CD" OR "maxillary and Mandibular denture*" OR "complete denture prosthesis" OR "complete denture prostheses" OR "RPD" OR "removable partial denture*" OR "partial denture") AND ("PMMA" OR "Polymethyl Metha acrylate" OR "acrylic" OR "acrylate resin") AND (Microbiome OR microorganism* OR microbe* OR microbiota OR "oral microflora" OR "PCR" OR "Polymerase Chain Reaction" OR "Next-generation sequencing" OR "NGS" OR "illumine technique" OR "sanger technique" OR "single-cell sequencing" OR "multi-cell sequencing" OR "genome sequencing" OR "DNA" OR "16s rRNA" OR "16s rDNA")</p> | 4 |
|        | (Edentulous OR edentulism OR "complete edentulousness" OR "no tooth" OR "loss of teeth" OR "completely edentulous" OR anodontia OR "partial edentulousness" OR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Google scholar | "partial edentulous" OR "absence of tooth"<br>OR "absence of teeth" OR "no teeth") AND<br>("Complete Denture*" OR "CD" OR<br>"maxillary and Mandibular denture*" OR<br>"complete denture prosthesis" OR "complete<br>denture prostheses" OR "RPD" OR<br>"removable partial denture*" OR "partial<br>denture") AND ("PMMA" OR "Polymethyl<br>Metha acrylate" OR "acrylic" OR "acrylate<br>resin") AND (Microbiome OR<br>microorganism* OR microbe* OR<br>microbiota OR "oral microflora" OR "PCR"<br>OR "Polymerase Chain Reaction" OR<br>"Next-generation sequencing" OR "NGS"<br>OR "illumine technique" OR "sanger<br>technique" OR "single-cell sequencing" OR<br>"multi-cell sequencing" OR "genome<br>sequencing" OR "DNA" OR "16s rRNA"<br>OR "16s rDNA") | 199 |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

115

116 **Supplementary table 2: Excluded articles with reasons**

| S.<br>No. | Author/year | Study | Reason for exclusion |
|-----------|-------------|-------|----------------------|
|-----------|-------------|-------|----------------------|

|    |                       |                                                                                                                                                                                         |                                                                                      |
|----|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1. | Yassin et al.2016     | Inhibition of multispecies biofilms by a fluoride-releasing dental prosthesis copolymer                                                                                                 | Study assessed the antimicrobial properties of a novel fluoride-releasing copolymer. |
| 2. | Raigar et al. 2021    | Adherence of Candida Albicans on Different Denture Base Material as Heat Cure Acrylic Denture Base Material Flexible Denture Base Material and Cobalt Chromium Alloy: An in Vitro Study | In Vitro Study                                                                       |
| 3. | Al-Fouzan et al. 2017 | Adherence of <i>Candida</i> to complete denture surfaces <i>in vitro</i> : A comparison of conventional and CAD/CAM complete dentures                                                   | In Vitro Study                                                                       |
| 4. | Jain et al. 2013      | An <i>in vitro</i> study on effect of Delmopinol application on <i>Candida albicans</i> adherence on heat cured denture base acrylic resin- A thorough study                            | In Vitro Study                                                                       |
| 5. | Kholief et al.2018    | An In-Vitro Evaluation of Alternative Disinfection Methods of Acrylic resin and Thermoplastic Resin Denture Base Materials                                                              | In Vitro Study                                                                       |
| 6. | Alshahrani et al.2022 | An updated review of salivary pH effects on polymethyl methacrylate (PMMA)-based removable dental prostheses                                                                            | Review article                                                                       |

|     |                       |                                                                                                                                                                                          |                                      |
|-----|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 7.  | Catanoze et al.2022   | Antagonistic effect of isolated and commercially available probiotics on the growth of Candida albicans on acrylic resin denture surfaces                                                | In Vitro Study                       |
| 8.  | Abualsaud et al.2021  | Antifungal Activity of Denture Base Resin Containing Nanozirconia: In Vitro Assessment of Candida albicans Biofilm                                                                       | In Vitro Study                       |
| 9.  | Sampaio et al.2023    | Are the counts of Streptococcus mutans and Staphylococcus aureus changed in complete denture wearers carrying denture stomatitis? A systematic review with meta-analyses                 | systematic review with meta-analyses |
| 10. | Gunther et al.2020    | Biofilms on polymeric materials for the fabrication of removable dentures                                                                                                                | Review article                       |
| 11. | D'Ambrosio et al.2023 | Characterization of the Oral Microbiome in Wearers of Fixed and Removable Implant or Non-Implant-Supported Prostheses in Healthy and Pathological Oral Conditions: A Narrative Review    | Narrative Review                     |
| 12. | Patil et al.2020      | Comparative Evaluation of Adhesion of Candida albicans to Heat Cure Polymethyl Methacrylate, Self-Cure Polymethyl Methacrylate and Vacuum formed Thermoplastic Resin - An In Vitro Study | In Vitro Study                       |



|     |                            |                                                                                                                                                                 |                                                           |
|-----|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 13. | Ebrahimi Saravi et al.2013 | Comparison of Candidal and Bacterial Adherence to Denture Base Acrylic Resins                                                                                   | In Vitro Study                                            |
| 14. | Bars et al.2023            | Different Polymers for the Base of Removable Dentures? Part II: A Narrative Review of the Dynamics of Microbial Plaque Formation on Dentures                    | Narrative Review                                          |
| 15. | Sowmya et al.2022          | Effect of Microwave Sterilisation on the Dimensional Property of Complete Denture: A Review.                                                                    | Review article                                            |
| 16. | Hasegawa et al.2024        | Effect of soft denture liners on complete denture treatments: A systematic review                                                                               | systematic review                                         |
| 17. | Goncalves et al.2019       | Effect of Terminalia catappa Linn. on Biofilms of Candida albicans and Candida glabrata and on Changes in Color and Roughness of Acrylic Resin                  | Effects of herbs on biofilm                               |
| 18. | Paranhos et al.2009        | Effect of three methods for cleaning dentures on biofilms formed in vitro on acrylic resin                                                                      | Study assessed on effect of methods for cleaning dentures |
| 19. | Fernandes et al.2007       | Efficacy of three denture brushes on biofilm removal from complete dentures                                                                                     | Study assessed on efficacy of three denture brushes       |
| 20. | Suganya et al.2014         | Evaluation and comparison of anti-Candida effect of heat cure polymethylmethacrylate resin enforced with silver nanoparticles and conventional heat cure resins | In vitro study                                            |

|     |                          |                                                                                                                                                                                                                                         |                                                          |
|-----|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 21. | Jung et al.2024          | Effects of aging on attachment of Candida albicans to conventional heat-polymerized, CAD-CAM milled, and CAD-CAM 3D-printed acrylic resin bases                                                                                         | Study assessed CAD/CAM technique                         |
| 22. | Alfouzan et al.2023      | Efficacy of Denture Cleansers on Microbial Adherence and Surface Topography of Conventional and CAD/CAM-Processed Denture Base Resins                                                                                                   | Study assessed CAD/CAM-Processed Denture Base Resins     |
| 23. | William Emory Linder, II | Evaluation of adherence of candida albicans to differently manufactured acrylic resin denture base materials                                                                                                                            | In vitro study                                           |
| 24. | Naji et al.2018          | Evaluation of Antimicrobial Properties of Conventional Poly(Methyl Methacrylate) Denture Base Resin Materials Containing Hydrothermally Synthesised Anatase TiO <sub>2</sub> Nanotubes against Cariogenic Bacteria and Candida albicans | Study assessed Antimicrobial Properties of nanomaterials |
| 25. | Larijani et al.2022      | Evaluation of Candida albicans biofilm formation on conventional and computer-aided-design/computer-aided                                                                                                                               | In vitro study                                           |

|     |                                |                                                                                                                                                    |                                                   |
|-----|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
|     |                                | manufacturing (CAD/CAM) denture base materials                                                                                                     |                                                   |
| 26. | Ahmad et al.2020               | Evaluation of nanomaterials to prevent oral Candidiasis in PMMA based denture wearing patients. A systematic analysis                              | systematic review                                 |
| 27. | Tsutsumi-Arai et al.2019       | Grapefruit seed extract effectively inhibits the Candida albicans biofilms development on polymethyl methacrylate denture-base resin               | Intervention based study- Grapefruit seed extract |
| 28. | Bajunaid 2022                  | How Effective Are Antimicrobial Agents on Preventing the Adhesion of Candida albicans to Denture Base Acrylic Resin Materials? A Systematic Review | Systematic Review                                 |
| 29. | Margarida Fernandes et al.2022 | In vitro comparative study of the surface properties of materials for removable prosthetic bases                                                   | In vitro study                                    |
| 30. | Azuma et al.2012               | Hydrophilic surface modification of acrylic denture base material by silica coating and its influence on Candida albicans adherence                | Study assessed silica coating                     |

|     |                                |                                                                                                                             |                |
|-----|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------|
| 31. | Ramage et al.2019              | Impact of frequency of denture cleaning on microbial and clinical parameters - a bench to chairside approach                | In vitro study |
| 32. | Gomes et al.2015               | In situ evaluation of the microbial adhesion on a hard acrylic resin and a soft liner used in removable prostheses          | In vitro study |
| 33. | Yamauchi et al.1990            | In vitro adherence of microorganisms to denture base resin with different surface texture                                   | In vitro study |
| 34. | Jung 2020                      | In vitro analysis of attachment of Candida Albicans to Denture Base acrylic resins fabricated by three different methods    | In vitro study |
| 35. | Vasconcelos et al.2020         | In Vitro Antimicrobial Activity of Effervescent Denture Tablets on the Components of Removable Partial Dentures.            | In vitro study |
| 36. | Martins de Oliveira et al.2018 | Influence of the use of complete denture adhesives on microbial adhesion and biofilm formation by single- and mixed-species | In vitro study |
| 37. | Casemiro et al.2012            | Laboratory Improvement of the Clinical Performance of Complete Dentures–A Review                                            | Review article |
| 38. | Gad et al.2024                 | Method of reducing bacterial activity in the oral cavity of a patient                                                       | Patent         |

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| 39. | Silva et al.2023            | Microbial adhesion and biofilm formation by Candida albicans on 3D-printed denture base resins                                                     | In vitro study                                              |
| 40. | Arutyunov et al.2024        | Microbial adhesion to dental polymers for conventional, computer-aided subtractive and additive manufacturing: a comparative in vitro study        | In vitro study                                              |
| 41. | Shivani Sati et al.2023     | Nanoparticles and Inert Coating Materials: A Potential Enhancer of Antimicrobial Property of Polymethyl-Methacrylate (PMMA) Based Denture          | Mini review article                                         |
| 42. | Wiatrak et al.2017          | Oral health of patients treated with acrylic partial dentures using a toothpaste containing bee product                                            | Intervention based study- toothpaste containing bee product |
| 43. | Monteiro et al.2021         | Oral prosthetic microbiology: aspects related to the oral microbiome, surface properties, and strategies for controlling biofilms                  | Review article                                              |
| 44. | Steve An et al.2023         | Overview of incorporation of inorganic antimicrobial materials in denture base resin: A scoping review                                             | scoping review                                              |
| 45. | Ribeiro et al.2012          | Photodynamic inactivation of microorganisms present on complete dentures. A clinical investigation: Photodynamic disinfection of complete dentures | Intervention based study- Photodynamic therapy              |
| 46. | Yaseen Alqutaibi et al.2023 | Polymeric denture base materials: a review                                                                                                         | Review article                                              |

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| 47. | Zhu et al.2012        | Possible variation of the human oral bacterial community after wearing removable partial dentures by DGGE                                                                         | Intervention based study- Denaturing gradient gel electrophoresis |
| 48. | Redfern et al.2022    | The denture microbiome in health and disease: an exploration of a unique community                                                                                                | Review article                                                    |
| 49. | Ann Smith et al.2020  | The effect of residual food stain on microbial colonisation of denture acrylics with the increase of Candida albicans                                                             | In vitro study                                                    |
| 50. | Oncul et al.2015      | The effect of two artificial salivas on the adhesion of Candida albicans to heat-polymerized acrylic resin                                                                        | In vitro study                                                    |
| 51. | Latib 2016            | The penetration and disinfection of Candida albicans in denture base resin                                                                                                        | In vitro study                                                    |
| 52. | Sherry et al.2016     | Viable compositional analysis of an eleven species oral polymicrobial biofilm                                                                                                     | In vitro study                                                    |
| 53. | Kamonwanon et al.2015 | Wear resistance of a modified polymethyl methacrylate artificial tooth compared to five commercially available artificial tooth materials                                         | In vitro study                                                    |
| 54. | Almeida et al.2018    | Antimicrobial activity of denture adhesive associated with Equisetum giganteum and Punica granatum-enriched fractions against Candida albicans biofilms on acrylic resin surfaces | Effects of pomegranate and giant horsetail on biofilm             |

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| 55. | Compagnoni et al.2014          | Antimicrobial activity and surface properties of an acrylic resin containing a biocide polymer                                                                                                  | In vitro study                                      |
| 56. | Tuncdemir et al.2018           | Antimicrobial Activity of Different Solutions on Denture Base Materials                                                                                                                         | In vitro study                                      |
| 57. | Hayran et al.2020              | Antimicrobial Activity of Ozone against Pathogenic Oral Microorganisms on Different Denture Base Resins                                                                                         | In vitro study                                      |
| 58. | Rocha Regis et al. 2011        | Antimicrobial Properties and Cytotoxicity of an Antimicrobial Monomer for Application in Prosthodontics                                                                                         | In vitro study                                      |
| 59. | Sodagar et al.2016             | Antimicrobial properties of poly (methyl methacrylate) acrylic resins incorporated with silicon dioxide and titanium dioxide nanoparticles on cariogenic bacteria                               | In vitro study                                      |
| 60. | Gayathri K.R. 2019             | Comparative Evaluation of the Efficacy of Different Denture Cleansers on the Candida Albicans Biofilm Formed on Polymethyl Methacrylate and Polyamide Denture Base Materials: An in Vitro Study | In vitro study                                      |
| 61. | Malek Rofidi A Alshehri 2018   | Comparative Microbial Adherence to Various Implant Dental Restorative Materials                                                                                                                 | Study assessed Implant Dental Restorative Materials |
| 62. | Masoomeh Aslanimehr et al.2017 | Comparison of Candida Albicans Adherence to Conventional Acrylic                                                                                                                                | In vitro study                                      |

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|-----|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|     |                     | Denture Base Materials and Injection Molding Acrylic Materials                                                                                |                                                 |
| 63. | Ala'a Makke<br>2014 | Comparison of Candida Albicans Adhesion to Various Denture Base Materials                                                                     | In vitro study                                  |
| 64. | Khiyani et al.2022  | Comparison of Penetration of Candida Albicans in Two Denture Base Materials                                                                   | In vitro study                                  |
| 65. | Wu et al.2013       | Development of a New Model System to Study Microbial Colonization on Dentures                                                                 | In vitro study                                  |
| 66. | Sonkol et al.2024   | Effect of denture base acrylic resin containing silver nanoparticles on <i>Candida Albicans</i> adhesion and its release in artificial saliva | In vitro study                                  |
| 67. | Inan et al. 2014    | Evaluation of microbial accumulation of different base materials                                                                              | In vitro study                                  |
| 68. | Yilmaz et al.2022   | Antimicrobial Effect of Polyhexanide on Denture Base and Soft Lining Materials                                                                | In vitro study                                  |
| 69. | Olms et al.2018     | Bacterial Colonization and Tissue Compatibility of Denture Base Resins                                                                        | Study assessed microbes on molar band appliance |



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| 70. | Resins et al. 2014 | Biofilm formation in denture base acrylic resins and disinfection method using microwave                                                  | In vitro study                                                                       |
| 71. | Elkholy et al.2024 | Candida Adherence and Different Denture Bases                                                                                             | In vitro study                                                                       |
| 72. | Park et al.2008    | Candida albicans Adherence to Surface-Modified Denture Resin Surfaces                                                                     | In vitro study                                                                       |
| 73. | Almeida et al.2020 | Cinnamaldehyde is a biologically active compound for the disinfection of removable denture: blinded randomized crossover clinical study   | In vitro study and Interventional based study- Cinnamaldehyde                        |
| 74. | Castro et al.2021  | Comparison of oral microbiome profile of polymers modified with silver and vanadium base nanomaterial by next-generation sequencing       | In vitro study and Interventional based study- silver and vanadium base nanomaterial |
| 75. | Celakil et al.2017 | Prevalence of Candida albicans and Streptococcus aureus on maxillary obturators, maxillary defects and in saliva: a cross-sectional study | Study assessed obturators on maxillectomy patients                                   |
| 76. | Elawady et al.2019 | A study to compare adhered oral flora to soft liner and conventional denture base surface in complete denture patients                    | Interventional based study- soft liner application and Betadine mouthwash            |
| 77. | Mushtaha 2019      | Bacteria colonizing acrylic resin complete dentures, after long-term use and the 1st week of new dentures placement                       | Indian Journal of Multidisciplinary Dentistry journal was discontinued               |