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**Insight of 3D Printing Technologies & Applications in Prosthodontics:
 A Literature Review**

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Abstract:

Initially, computer-aided design/computer-aided manufacturing (CAD/CAM) systems relied solely on subtractive methods. In past few years, additive methods by employing rapid prototyping (RP) have progressed expeditiously in various fields of dentistry as they have the potential to overcome known drawbacks of subtractive techniques such as adaptation issues. 3D printing has been exploited to build complex 3D models in medicine since the 1990s. It has successfully proposed applications in various dental fields, such as construction of implant surgical guides, different frame work designs for fixed and removable partial dentures, wax patterns, zirconia prosthesis and molds for metal castings, and excellent work in maxillofacial prosthetics and complete dentures. This paper aimed to render a comprehensive literature review of various 3D printing methods, specifically in prosthodontics. A search was made through MEDLINE database and Google scholar search engine. The keywords; '3D printing', 'Rapid prototyping' and 'dentistry' were searched in title/abstract of publications; limited to 2012 to 2022, restricting to past decade. The inclusion criterion was the technical researches that predominately included laboratory procedures and technologies relevant in prosthodontic implications. The exclusion criterion was excessive technical procedures. A total of 132 articles were retrieved, recited by authors and only 37 met the specified inclusion criteria for this review. Short listed articles had utilized 3D printing techniques in various fields of dentistry. This review portrayed numerous laboratory procedures employed in 3D printing and confirmed that it has been considerably feasible in dentistry.

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