

The Growing Importance of Patient-Reported Outcome Measures (PROMs) in Modern Clinical Research

Sanja Persic Kirsic |

***Corresponding Author:** Sanja Persic Kirsic, Department of Prosthodontics, School of Dental Medicine, University of Zagreb, Gunduliceva 5, 10000 Zagreb, Croatia.

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Patient-centered care has become a defining principle of contemporary healthcare, shifting focus from purely clinical or biological outcomes toward the patient's own perception of health, function, and well-being. In medicine, dentistry, agriculture, veterinary medicine, and biotechnology, the integration of patient-reported outcome measures (PROMs) is transforming how research evidence is interpreted and how treatment success is defined.

PROMs offer insight into dimensions that traditional clinical or laboratory indicators cannot fully capture. Elements such as physical comfort, emotional well-being, esthetic satisfaction, functional ability, and social participation are essential contributors to health-related quality of life. These domains are especially relevant in fields where treatment outcomes extend beyond purely objective measures, for example prosthodontics, maxillofacial surgery, dermatology, rehabilitation medicine, and numerous allied health disciplines. As multidisciplinary health research evolves, PROMs provide a standardized and structured framework to evaluate treatment benefits from the patient perspective.

Over the past decade, dentistry has seen significant expansion in the development and validation of PROM instruments, such as the Oral Health Impact Profile (OHIP), the Orofacial Esthetic Scale (OES), and the Chewing Function Questionnaire (CFQ). Their strong psychometric properties, supported by cross-cultural adaptation, reliability and validity testing, and responsiveness assessment, enable meaningful comparison of findings across different populations and research settings. These instruments reflect a broader global trend: health outcomes are increasingly evaluated not only through clinical performance but through the patient's perception of improvement, satisfaction, and everyday functioning.

Digital technology has further accelerated the adoption of PROMs. Web-based systems, mobile applications, and integrated digital platforms allow efficient data collection, real-time monitoring, and seamless integration with electronic health records. This creates new opportunities for large-scale epidemiological studies, personalised treatment planning, and informed decision-making. Importantly, the use of PROMs also enhances the clinician patient relationship by supporting shared decision-making and improving communication.

As biotechnology and agricultural sciences become increasingly interconnected with human and animal health, PROM-like tools offer promising applications for assessing well-being, treatment acceptability, consumer perception, and sustainability-related impacts. Whether evaluating the comfort of dental prostheses, the functional outcomes of rehabilitative devices, or the subjective experiences of patients or end-users in emerging therapeutic and technological fields, PROMs serve as a bridge between objective scientific measurements and real-world human experience.

Future research should prioritize expanding the cultural adaptability, digital accessibility, and cross-sector relevance of PROM instruments. As health sciences continue to integrate subjective and objective data, PROMs will remain essential tools for understanding the true effectiveness of interventions and their broader impact on quality of life.