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# Development of a Pre-operative Behavioural Treatment Model to Reduce the Risks of Occupational Hazards Among Dental Practitioners: A Qualitative Study

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## Abstract

**Introduction:** Despite technological advances available in modern dentistry, occupational hazards such as back pain and eye strain, are still reported. These risks cannot be completely eliminated in dental practice. Therefore, appropriate occupational health and safety measures need to be adopted by dental practitioners. This study aimed to develop a pre-operative behavioural treatment model (BTM: Pre-Op) for preventive measures of back pain and eye strain among dental practitioners, drawing from the perspectives of dental specialist, orthopaedic specialists, and optometrists.

**Materials and methods:** This qualitative study utilised purposive sampling method. Focus group

discussions (FGDs) were conducted separately among dental specialists, orthopaedic specialists, and optometrists to gather the expert views on the best approach to reduce back pain and eye strain in dental practice. The FGDs were audio recorded and transcribed. The transcripts were analysed using the framework analysis method to develop a comprehensive BTM: Pre-Op. Results: The transcripts were analysed using framework analysis, revealing three main themes and associated subthemes based on the FGD discussion. Pre-operative preventive measures that dental practitioners may adopt include developing a healthy working schedule, maintaining fit and healthy personnel, and fostering a supportive and healthy working environment. Conclusion: The BTM: Pre-Op is properly developed. The main theme and subthemes are systematically arranged to address the risks of back pain and eye strain among dental practitioners. © 2025 Universiti Putra Malaysia Press. All rights reserved.

## Author keywords

Back pain; Dental practitioners; Eye strain; Occupational hazards; Prevention

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