Psychometric Properties of Dental Beliefs Survey in Iranian University Students

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ABSTRACT

Introduction: Dental beliefs involve evaluating patients' attitudes toward dentists and dental treatment. The beliefs and perceptions regarding dentistry among various populations have been identified as crucial factors influencing the utilization of dental services within a community. These beliefs depict the patient's interpretation of the conduct of dental health professionals, which plays a significant role in their dental fear and anxiety. Furthermore, they contribute to comprehending the reasons behind the lack of utilization of dental health services in a community. A negative perception of dentists is a key explanatory factor for individuals not seeking dental care.

Methods and Materials: In this cross-sectional study utilizing a descriptive survey method, the 24-item version of the Dentists' Behavior Scale (DBS) was employed, consisting of four subscales with a focus on professionalism/ethics, which aims to evaluate the technical competency and integrity of the dentist. The psychometric properties of the Persian version of DBS were examined across six stages: the translation process, evaluation of content validity, face validity, construct validity, discriminant validity, and reliability. A panel of experts (n = 10) and, subsequently, a group of students (n = 10) assessed the items of the instrument regarding content and face validities, respectively. A cross-sectional study involving 280 students was conducted using random sampling to establish construct validity. Internal consistency was evaluated using Cronbach's alpha and McDonald's omega coefficients.

Results: Content validity ratio, content validity index, and impact score were 0.98, 0.98, and 3.54 for DBS, respectively. This result indicates acceptable content and face validity. Exploratory factor analysis was performed on 24 items to examine the construct validity. Four factors explained 63.45% of the cumulative variance. The fit indices (CFI = 0.98, TLI = 0.95, $\chi 2/pdf = 4.20$, RMSEA = 0.06) confirmed the validity of the model in confirmatory factor analysis. The values average variance extracted values were more significant than 0.5, showing that the factors converge effectively. Internal consistency was examined using Cronbach's alpha and McDonald's omega coefficients, which were 0.90 and 0.92, respectively. This observation shows the appropriate reliability of the instrument.

Conclusion and Discussion: The study findings indicated that similar to the original version of the scale, the Persian version of DBS-R (Dental et al.) has sufficient validity and reliability. These findings contribute to understanding dental beliefs and attitudes in Iran and have potential implications for the development of effective oral health interventions.

Keywords: Dentists, Psychometrics, Students

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