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## Indian version of Multi Theory Model: A novel instrument in predicting the initiation and sustenance of brushing behavior among college students in India

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**Introduction:** The Multi Theory Model (MTM) a new theory addresses both the initiation and sustenance of health behavior change. Tooth brushing plays a vital role in an effective plaque control program. Despite, reinforcing the habit of brushing twice daily a lack of sustenance of this behavior is found among the populous.

### Objectives:

1. To explore the substrate structure of MTM.
2. To test the fit of MTM questionnaire in college students in India

**Methodology:** A questionnaire is designed using relevant literature. Questions addressing socio-demographic information, gender, age, academic marks, and MTM are explored. A pilot was conducted using this questionnaire. Reliability analysis was performed and explorative analysis was done using principal component analysis (PCA) as the factor extraction method. Construct validity was investigated using Confirmatory Factor Analysis (CFA) to add a level of statistical precision and assist in the development of the instrument.

**Results:** Reliability analysis revealed a Cronbach's Alpha value of 0.892. Split half and test-retest reliability were 0.779 and 0.77 respectively. PCA suggested 6 domains and was confirmed by CFA.

**Discussion:** There is evidence for the Indian version of MTM as being a reliable and valid scale as the number of domains is the same in our questionnaire as suggested by Sharma et al. who first gave the MTM. This is the first study where the MTM instrument is being used in an Indian population.

### Biography

Dhiraj Panjwani is currently working as a Dental Intern (5th-year undergraduate student) at Manipal College of Dental Sciences, Mangalore. He was president of the Dental Students' Association for the 2015-16 tenure. He has a keen interest in the field of research and development. He has multiple ongoing research projects in the field of dental and public health on the application of Multi Theory Model in initiation and sustenance of a health behavior in dentistry, assessing physical properties of a curing light to cure dental composites and has presented in national and international conferences.

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