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# Correlation Between a Simple Tool for Evaluating Masticatory Function Value with Masticatory Performance by Sieve Method and Masticatory Ability by Questionnaire Among Older Adults

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## Abstract

**Objectives:** This study aimed to find the correlation between a simple tool for evaluating masticatory function value with masticatory performance and masticatory ability among older adults and using masticatory function value for evaluating subjects with different mastication groups.

**Methods:** The sample was 100 older adults in the dental clinic of Lee Hospital, Lamphun, Thailand. The samples were interviewed with general information, dental examination, tooth number, and occlusal pair. The wax biting test was given to samples, compared with the masticatory performance by sieve method and the masticatory ability by questionnaire. Data were analyzed using descriptive and analytical statistics.

**Results:** A high positive correlation between a simple tool for evaluating masticatory function value with masticatory performance by sieve method (correlation coefficient=0.54) and masticatory ability by questionnaire (correlation coefficient=0.64). The difference in the number of teeth, Occlusal pairs, and Eichner index classification have different masticatory function values ( $p<0.05$ ). The number of teeth, occlusal pair, and masticatory ability can predict masticatory function values ( $R=0.83$ ;  $R^2=0.68$ ;  $F=68.12$ ;  $p<0.05$ ). Masticatory groups divided by masticatory function value are related to masticatory groups divided by masticatory performance. (Chi-Square=8.24,  $p<0.05$ )

**Conclusions:** The simple tool created for evaluating masticatory function value by wax biting test can be used to measure masticatory function. It is a reliable tool, easy to use in the clinic, convenient, and not complicated. It can differentiate masticatory function values in people with different mastication.

**Keywords:** masticatory ability, masticatory function value, masticatory performance, oral hypofunction