

NathawutKaewsutha. (2015). *The causal structural relationship model and effectiveness of the behavioral modification program on oral hygiene care and the oral hygiene status of early adolescents*. Dissertation Ph.D. (Applied Behavioral Science Research). Bangkok: Graduated school, Srinakharinwirot University. Advisor committee: Assoc. Prof. Dr. UngsinunIntarakamhang, Assist. Prof. Dr. PatchareeDuangchan.

The purposes of this sequential quantitative method research were to examine the causal relationship of oral hygiene care behavior among early adolescence and to determine effectiveness of the behavioral modification program on oral hygiene care and the oral hygiene status of early adolescents. This study consists of 2 research phases. The first phase, the samples were 391 seventh grade students in Nakhon-Nayok, stratified random sampling was used. The latter phase, simple random sampling was applied to classified samples into experiment group and control group. Dental examination and questionnaires with 6-scales rating were used, the confidence level is between .55 -.82. Structural equation model analysis, ANCOVA and MANCOVA were applied. The results showed that, the assumption of causal relationship model fits with the empirical data.  $\chi^2 = 132.00$ ,  $df = 75$ ,  $p\text{-value} = 0.001$ ,  $SRMR = 0.053$ ,  $RMSEA = 0.044$ ,  $GFI = 0.96$ ,  $NFI = 0.87$ ,  $TLI = 0.91$ ,  $CFI = 0.94$ ,  $AGFI = 0.93$ ,  $PNFI = 0.62$ ,  $\chi^2 / df = 1.77$ , Behavioral modification factor has direct effect to oral hygiene care behavior, effect size equals to .54, while positive attitude toward oral hygiene care has an indirect effect to oral hygiene care behavior, the effect size is 0.45. The causal variables which have an indirect effect to the oral hygiene status are behavioral modification, positive attitude toward oral hygiene and perceived threat of diseases, coefficient are .13, .11 and -0.08, and regarding the study about the effectiveness of the oral hygiene care behavioral modification program it is showed that students who participated in the oral hygiene care behavioral modification program for early adolescence will have better brushing behavioral, eating behavioral and oral hygiene status. No significant interaction between psychosocial variables and model training that effected on brushing behavioral, eating behavioral and oral hygiene status.