**THESIS TITLE** : REDUCING BLOOD LEAD LEVEL BY CHANGING BEHAVIOR PERSONAL HYGIENE OF CERAMIC FACTORY WORKERS : A CASE STUDY AMPHUR MUANG CHAINAT PROVINCE

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## ABSTRACT

The purpose of this study is to study the reducing blood lead level by personal hygiene behavior changing of ceramic workers. This is a semi-experimental research in one group Pretest-Posttest were collected by mean of interviewing the symptomatic and historied clinical datum of the 25 ceramic factory workers. Both before and after changing the personal hygiene behavior. The blood samples of experimental group were taken from 25 ceramic factory workers. The blood samples were tested twice to find the amount of blood lead level by the "Atomic Absorption Spectrophotometer". First, before starting the program for personal hygiene behavior changing to reduce the amount of blood lead level, the experimental group had to clean, wash hand before eating and going home every time, changed cloths, wash face and wash mouth before going home and eating every time and had n't to eat during working periods. The air in the factory was also tested to find the amount of lead level by using "Atomic

Absorption Spectrophotometer" at 5 positions and recollected the datum twice, first 4 weeks after the first time, at the same position and then 5-6 weeks after the first time using confirmed concentration of air lead level (also the blood samples for the second time)

The study results showed that the symptoms occurred with the workers reducing in total except the number of headache that increased and the amount Personal Sampling and Environmental Sampling each position for three times. Both groups of these amounts associated of air lead level .When compared to the amount before and after the personal hygiene behavior changing experiment, in total were reducing in the range of 0.040-1.590 microgram per 100 cubic centimeter blood or average at 0.8838 microgram per 100 cubic centimeter blood and reducing with statistical significant of ($p < 0.0001$) by using the paired t-test distribution. So that this conclusion study is personal hygiene behavior can reduced blood lead level of ceramic factory workers.