Effect of the Complete Health Improvement Program on Neutrophil Phagocytic Activity

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Abstract

The increased incidence of lifestyle diseases has led to the development of health intervention programs. These lifestyle programs have the potential to greatly change one's overall health. One of such program is the Complete Health Improvement Program (CHIP). Although offered in various locations worldwide, this study involved CHIP participants held at Adventist Medical Center-Manila, Pasay City, Manila (AMCM). The goal of this study was to determine the effect of participating in the CHIP on the innate immune system particularly the neutrophil phagocytic activity. Using pre-experimental design, incidental quota sampling was used to conduct a pre-post intervention study design. The phagocytic activity of neutrophils was determined through microscopic examination of slides prepared from the participants' heparinized whole blood, inoculated with a bacterial suspension of *Staphylococcus aureus* and stained with Wright's stain. Statistical comparison using dependent *t*-test of the pre- and post-CHIP neutrophil phagocytic activity of the participants who joined the program showed significant changes. Phagocytic percent, phagocytic index and phagocytic activity are significantly higher after the completion of the program. Further study on whether these results would be consistent in participants who can maintain the lifestyle and the effect on the adaptive immune system may be explored.

Keywords: *Complete Health Improvement Program, neutrophil phagocytic activity, phagocytic index, phagocytic percentage*