

PERBANDINGAN PERSEPSI RASA NYERI ANTARA PENGGONSUMSI KAFEIN DAN NON-PENGGONSUMSI KAFEIN

(COMPARISON PERCEPTION OF PAIN BETWEEN HABITUAL CONSUMER
AND HABITUAL NON-CONSUMER OF CAFFEINE)

ABSTRACT

Background. Caffeine today has been becoming subject for experiments still for its contradictive biological effects when consumed. Research by Sergio HF and Nakamura on 2003 concluded that caffeine had hyperalgesia effect in rat paw by inhibiting phosphodiesterase enzyme also increasing intracellular cAMP and Ca^{+} . On the other hand, research by Rachel CG and Robert WM on 2008 concluded that caffeine had hypoalgesia effect, proved by group that consumed caffeine one hour before intense cycling exercises was less feeling muscle-pain than control group that consumed placebo. **Purpose.** The aim of this research is to observe the facial pain between habitual consumer and habitual non-consumer caffeine. **Method.** One population of non smoker, male, in high school students-age and college-age, free from any systemic disease and allergies, were questioned and examined by historical and habitual of consuming caffeine. Forty two of them were divided into two groups based on their habits of consuming caffeine. This research examined the effect of consumed caffeine on perceptions of pain, their facial expressions were video-recorded while receiving the infrared heat transmits for 2 minutes, and the recorded results were scored with the universal pain assessment tool by Wong Baker. **Results.** There were significant differences perceptions of pain ($p < 0,05$) between caffeine consumer group and caffeine non-consumer group. **Conclusion.** Habitual consumer of caffeine tended to have hyperalgesia effect more than habitual non-consumer of caffeine.

Keywords: caffeine, hyperalgesia, adenosine, heat transmitting.