

## ABSTRAKSI

Indonesia urutan ketiga di dunia dan terbesar di negara ASEAN. Jumlah perokok anak terus naik. Data Global Youth Tobacco Survey (GYTS), jumlah remaja perokok Indonesia terbesar di Asia. Lebih 43 juta anak Indonesia hidup serumah dengan perokok dan terpapar asap rokok (perokok pasif) Komponen utama rokok, tar, nikotin, dan gas karbon monoksida(CO). Tar sebagai pemicu kanker (bersifat karsinogenik), nikotin dapat meningkatkan adrenalin sehingga terjadi peningkatan glukosa dalam darah dan tekanan darah. CO mempunyai daya ikat 200-250 kali lebih kuat mengikat hemoglobin daripada oksigen sehingga terjadi peningkatan eritrosit dan hematokrit yang menyebabkan viskositas darah meningkat sehingga sirkulasi menjadi tidak lancar yang berdampak muncul berbagai penyakit. Tujuan penelitian untuk melihat hubungan darah (hemoglobin, hematokrit dan glukosa) pada remaja perokok aktif dan perokok pasif. Metode: Penelitian observasional korelasi analitik, desain *crosssectional*. Jumlah sampel 28 meliputi 14 sampel perokok aktif dan 14 sampel perokok pasif yang memenuhi kriteria inklusi dan eksklusi. Data dianalisis menggunakan uji spearman dengan tingkat kepercayaan 95%. Hasil: Uji spearman perokok aktif dan pasif dengan kadar Hemoglobin, nilai (sig 1-tailed)  $0,000 < 0,05$  dengan koefisien korelasi 0,781 artinya ada hubungan signifikan, kadar Hematokrit (sig 1-tailed),  $0,000 < 0,05$  dengan koefisien korelasi 0,720 artinya ada hubungan signifikan, kadar glukosa (sig 1-tailed) :  $0,047 > 0,05$  dengan koefisien korelasi -0.323 artinya tidak ada hubungan Kesimpulan: Ada hubungan signifikan antara kadar hemoglobin dan hematokrit remaja perokok aktif dan perokok pasif sementara pada kadar glukosa tidak terdapat hubungan.

**Kata kunci :** Remaja, perokok aktif, perokok pasif, hemoglobin, hematokrit, glukosa

## ABSTRACT

Indonesia ranked third in the world and the largest in ASEAN countries. The number of child smokers continues to rise. Global Youth Tobacco Survey (GYTS) data, Indonesia's largest number of smokers in Asia. Over 43 million Indonesian children live at home with smokers and are exposed to secondhand smoke (second-hand smoke) The main components of cigarettes, tar, nicotine, and carbon monoxide (CO) gas. Tar as a cancer trigger (carcinogenic), nicotine can increase adrenaline resulting in increased glucose in blood and blood pressure. CO has a binding strength of 200-250 times stronger binding to hemoglobin than oxygen resulting in increased erythrocytes and hematocrit which causes increased blood viscosity so that the circulation becomes not smooth which impacts various diseases. The purpose of the study was to look at blood relations (hemoglobin, hematocrit and glucose) in adolescent active smokers and passive smokers. Method: Observational study of analytic correlation, cross-sectional design. The sample number 28 included 14 samples of active smokers and 14 samples of passive smokers meeting the inclusion and exclusion criteria. Data were analyzed using spearman test with 95% confidence level. Result: Spearman test of active and passive smoker with Hb level, value (sig 1-tailed) 0,000 <0,05 with correlation coefficient 0,781 means significant relation, Ht (sig 1-tailed), 0,000 <0,05 with correlation coefficient 0.720 means no significant relationship, glucose level (sig 1-tailed): 0.047 > 0.05 with a correlation coefficient of -0.323 means no relationship Conclusion: There is a significant relationship between hemoglobin and hematocrit levels of adolescent smokers and passive smokers while the glucose levels are not there is a relationship.

Keywords: Adolescents, active smokers, passive smokers, hemoglobin, hematocrit, glucose