

## INTISARI

### PENGARUH POLUSI UDARA TERHADAP FUNGSI KAPASITAS PARU PADA PETUGAS PARKIR DI WILAYAH PARKIR ZONA C KOTA SURAKARTA

Irwan Cahya Kusuma<sup>1</sup>, Indriyati<sup>2</sup>, Rif Atiningtyas Haris<sup>3</sup>

**Latar Belakang:** Pencemaran udara yang disebabkan oleh partikel-partikel dalam udara berdampak pada kesehatan manusia. Partikel-partikel polutan dalam udara bersifat karsinorganik yang menyebabkan gangguan pada pernafasan manusia. Perkembangan kota Surakarta menyebabkan banyaknya masyarakat luar datang ke kota Surakarta sehingga menimbulkan bertambahnya jumlah kendaraan dalam kota sehingga menambah jumlah polutan dalam udara. Disisi lain pertambahan kendaraan yang ada meningkatkan lapangan pekerjaan khususnya parkir. Paparan polusi udara yang diterima oleh petugas parkir menyebabkan resiko terjadinya gangguan pernafasan salah satunya adalah penurunan kapasitas paru.

**Tujuan:** Untuk mengetahui pengaruh polusi udara terhadap kapasitas paru petugas parkir Zona C Kota Surakarta.

**Metode:** Penelitian ini merupakan deskriptif analitik. Populasi penelitian adalah Petugas parkir di zona C Kota Surakarta dengan sampel 61 petugas parkir. Penentuan sampel dalam penelitian menggunakan teknik *simple random sampling*. Pengujian hipotesis penelitian menggunakan uji *independent sample t-test*.

**Hasil Penelitian:** Hasil uji *Independent Sample t-test* diperoleh nilai  $t_{hitung}$  sebesar 5,791 dengan  $p-value = 0,000$  dan  $H_0$  ditolak yang berarti terdapat pengaruh polusi udara terhadap fungsi kapasitas paru petugas parkir di Wilayah parkir zona C Kota Surakarta, dimana disimpulkan semakin tinggi tingkat polusi udara maka kapasitas paru responden semakin buruk.

**Simpulan:** (1) Tingkat polusi udara di Wilayah parkir zona C Kota Surakarta pada wilayah Gladag termasuk kategori sedang dan di wilayah Purwosari termasuk tidak sehat, (2) tingkat kapasitas paru petugas parkir di Wilayah parkir zona C Kota Surakarta sebagian besar adalah mengalami gangguan fungsi paru berat (72,1%), dan (3) Terdapat pengaruh polusi udara terhadap fungsi kapasitas paru petugas parkir di Wilayah parkir zona C Kota Surakarta ( $p-value 0,000$ ).

Kata Kunci : polusi udara, kapasitas paru, petugas parkir.

- 
1. Mahasiswa Program Studi Ilmu Keperawatan Universitas Sahid Surakarta.
  2. Dosen Program Studi Ilmu Keperawatan Universitas Sahid Surakarta.
  3. Dosen Program Studi Ilmu Keperawatan Universitas Sahid Surakarta.

## **ABSTRACT**

### **EFFECT OF AIR POLLUTION ON LUNG FUNCTION IN OFFICIAL CAPACITY IN THE PARKING LOT PARKING ZONE C CITY SURAKARTA**

*Irwan Cahya Kusuma<sup>1</sup>, Indriyati<sup>2</sup>, Rif Atiningtyas Haris<sup>3</sup>*

**Background:** Air pollution caused by particles in the air has an impacted on human health. The particles of pollutants in the air are carcinogenic that causes human respiratory disorders. Surakarta city development led to many outsiders come to the city of Surakarta, causing an increase in the number of vehicles in the city thereby increasing the amount of pollutants in the air. On the other hand the increase of the existing vehicle to boost employment, especially parking. Exposure to air pollution received by the parking attendant risk of causing respiratory problems one of which is the reduction in lung capacity.

**Purpose:** To determined the effect of air pollution on lung capacity parking attendant Zone C Surakarta.

**Method:** This study was a descriptive analytic. The study population was a parking attendant in Zone C Surakarta with 61 samples parking attendant. Determination of the sample used simple random sampling technique. Test research hypothesis testing using independent sample t-test .

**The Result of Research:** The Independent Sample t-test values obtained  $t_{count}$  of 5.791 with a  $p$ -value = 0.000 and  $H_0$  was rejected, which means that there were effects of air pollution on the function of lung capacity by parking attendants in Wilayah parking zone C Surakarta, which concluded the higher the level of pollution Conditioning the lung capacity of respondents getting worse.

**Conclusion:** 1) The level of air pollution in the area was park zone C Surakarta in the region Gladag medium category and region Purwosari including unhealthy, (2) the level of lung capacity by parked attendants in parking zone C Surakarta mostly malfunctioning severe lung (72.1%), and (3) There was the influence of air pollution on lung function capacity of the parked attendants in parking zone C region Surakarta ( $p$ -value 0.000).

**Keywords:** *air pollution, lung capacity, parking attendant.*

---

1. Student Programs Sahid University of Surakarta Nursing Studies.
2. Lecturer of Nursing Studies Program Sahid University of Surakarta.
3. Lecturer of Nursing Studies Program Sahid University of Surakarta