

## Intisari

### STATUS GIZI, KOMPOSISI TUBUH DAN KURVA KEPARAHAN SKOLIOSIS PADA REMAJA SKOLIOSIS DAN NON SKOLIOSIS DI KOTA SURABAYA

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**Latar Belakang:** Populasi remaja penyandang skoliosis merupakan kelompok rentan terhadap berbagai masalah kesehatan akibat progresivitas dari kelengkungan tulang belakang. Status gizi dan komposisi tubuh merupakan faktor yang berhubungan dengan skoliosis.

**Tujuan:** Penelitian ini bertujuan untuk mengkaji perbedaan status gizi dan komposisi tubuh antara remaja skoliosis dan non skoliosis, serta hubungan antara status gizi dan komposisi tubuh dengan kurva keparahan pada remaja skoliosis di Kota Surabaya.

**Metode:** Penelitian ini merupakan penelitian observasional dengan rancangan *case control* dan *cross sectional*. Penelitian dilakukan di Surabaya, Jawa Timur selama bulan September-November 2016. Subyek penelitian terdiri dari 26 remaja perempuan skoliosis anggota Masyarakat Skoliosis Indonesia Jawa Timur dan remaja sehat berumur 14-19 tahun. Variabel yang diukur, antara lain indeks massa tubuh (IMT) menurut umur atau IMT/U, rasio lingkaran pinggang-pinggul, rasio pinggang-tinggi, lingkaran lengan atas (LILA), persen lemak tubuh, persen massa bebas lemak, dan kurva keparahan skoliosis. Analisis data menggunakan *student t-test* atau *Mann Whitney test*, uji *Chi Square* atau *Fisher's Exact*, serta uji *Spearman*.

**Hasil :** Terdapat perbedaan nilai rerata berat tubuh, IMT, IMT/U, dan LILA remaja skoliosis yang lebih kecil, serta status gizi LILA remaja skoliosis yang berisiko KEK dibandingkan non skoliosis. Tidak terdapat perbedaan komposisi tubuh antara remaja skoliosis dan non skoliosis, serta tidak terdapat hubungan status gizi dan komposisi tubuh dengan kurva keparahan skoliosis pada remaja skoliosis.

**Kesimpulan :** Remaja skoliosis berbeda dalam parameter berat tubuh, IMT, IMT/U, LILA, dan status gizi LILA dengan non skoliosis, sehingga diperlukan pemantauan dalam pertumbuhan dan perkembangannya.

**KATA KUNCI:** remaja, antropometri, status gizi, komposisi tubuh, skoliosis

## Abstract

### NUTRITIONAL STATUS, BODY COMPOSITION AND SCOLIOSIS CURVE SEVERITY IN ADOLESCENT WITH SCOLIOSIS AND NON SCOLIOSIS IN SURABAYA

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**Background:** Population of adolescent with scoliosis is a susceptible group to many health problems due to the progression of the spine curvature. Nutritional status and body composition are factors associated with scoliosis.

**Objective:** To determine differences in nutritional status and body composition between adolescent with scoliosis and non scoliosis, and the relationship between nutritional status and body composition with curve severity in adolescents scoliosis in Surabaya.

**Methods:** The study was observational with case control and cross sectional design. The study was conducted in Surabaya, East Java during September-November 2016. Subjects consisted of 26 female adolescent with scoliosis of the Masyarakat Skoliosis Indonesia (MSI) and healthy teenagers aged 14-19 years. The measured variables were Body Mass Index (BMI)-for-age, waist-hip-ratio, waist-height-ratio, mid upper arm circumference (MUAC), percent body fat, percent fat free mass, and scoliosis curve severity. Data were analyzed with student t-test, Chi Square or Fisher's Exact test, and Spearman test.

**Results:** There were different mean value of body weight, BMI, BMI-for-age, MUAC in adolescent with scoliosis that lower, and MUAC nutritional status that at risk of chronic energy deficiency than non scoliosis. There was no difference in body composition between adolescent with scoliosis and non scoliosis, and there was no correlation between nutritional status and body composition with scoliosis curve severity in adolescent with scoliosis.

**Conclusions:** Adolescent with scoliosis differ in weight, BMI, BMI-for-age, MUAC parameters, and MUAC nutritional status with non-scoliosis, so monitoring is required in their growth and development.

**KEY WORDS:** adolescent, anthropometry, nutritional status, body composition, scoliosis