

INTISARI

Perbandingan Estimasi Visual Asupan Gizi Pasien Berdasarkan Metode Observasi Langsung dan Metode Foto Digital di RSUP Dr. Sardjito Yogyakarta

Herdawan Inggit Astuti¹, R. Dwi Budiningsari², Fasty Arum Utami²

Latar Belakang: Pasien yang mengalami kekurangan energi dan protein akan mengalami penurunan status gizi pada saat dirawat di rumah sakit yang akan berpengaruh dalam upaya penyembuhan penyakit. Pemantauan asupan energi dan protein menjadi salah satu hal penting untuk mencegah hal tersebut. *Comstock* (observasi langsung) merupakan metode yang umum digunakan di rumah sakit. Foto digital merupakan metode yang memberikan banyak kelebihan dan dapat diterapkan di rumah sakit namun belum pernah diujikan di Indonesia.

Tujuan Penelitian: Membandingkan metode *Comstock* (observasi langsung) dan foto digital (*post meal* dan *pre-post meal*) dengan penimbangan sebagai *gold standar* dalam menilai asupan energi dan protein pasien di RSUP Dr. Sardjito.

Metode: Pasien dewasa sebanyak 48 orang diambil set sisa makanannya pada saat makan pagi dan siang, sehingga diperoleh 96 sisa makanan pasien. Sisa makanan pasien yang berbeda diestimasi asupan gizinya (energi dan protein) oleh ahli gizi menggunakan metode *Comstock* dan foto digital (*post meal* dan *pre-post meal*), sedangkan metode penimbangan (*gold standar*) dilakukan oleh peneliti.

Hasil: Analisis *independent sample t-test* menunjukkan tidak terdapat perbedaan hasil estimasi asupan gizi pasien antara metode foto digital dibandingkan dengan dengan *Comstock* dan penimbangan (penilaian energi berturut – turut $p=0,727$ FW vs. C; $p=0,763$ FW vs. PM; $p=0,829$ FW vs. PPM; $p=0,966$ C vs. PM; $p=0,894$ C vs. PPM dan penilaian protein berturut – turut $p=0,865$ FW vs. C; $p=0,848$ FW vs. PM; $p=0,761$ FW vs. PPM; $p=0,980$ C vs. PM; $p=0,893$ C vs. PPM). *Limits of agreement* dari Bland-Altman Plot antar metode dibandingkan dengan penimbangan pada energi adalah -46,21 hingga 32,22 (*Comstock*), -45,80 hingga 33,55 (*post meal*), dan -43,22 hingga 34,63 (*pre-post meal*) sedangkan pada protein adalah -1,74 hingga 1,46 (*Comstock*), -1,79 hingga 1,47 (*post meal*), dan -1,88 hingga 1,37 (*pre-post meal*).

Kesimpulan: Metode foto digital (*post meal*) berpotensi untuk dapat digunakan dalam penilaian asupan gizi pasien di rumah sakit

Kata Kunci: Metode *Comstock*, metode foto digital, metode penimbangan, asupan gizi, energi, protein.

¹ Mahasiswa Program Studi S1 Gizi Kesehatan FK-KMK UGM

² Dosen Program Studi S1 Gizi Kesehatan FK-KMK UGM

ABSTRACT

Comparison of Visual Estimating Patient Nutritional Intake Using Direct Observation Methods and Digital Photography Methods in RSUP Dr. Sardjito Yogyakarta

Herdawan Inggit Astuti¹, R. Dwi Budiningsari², Fasty Arum Utami²

Background: Patients who lack of energy and protein will experience a decrease in nutritional status when hospitalized. This will affect efforts to cure the disease. Monitoring energy and protein intake is one important thing to prevent it. Comstock (direct observation) is a method commonly used in hospitals. Digital photography is a method that has many advantages and can be applied in hospitals but has never been tested in Indonesia.

Objective: To compare the Comstock method (direct observation) and digital photography (post meal and pre-post meal) with weighing methods as a gold standard in assessing patient nutritional intake (energy and protein) in RSUP Dr. Sardjito.

Methods: Forty-eight adult patients' plate of leftover food were taken in breakfast and lunch, the total is 96 plates of adult patients. Nutritional intake (energy and protein) of different patients was estimated by nutritionist using the Comstock method (direct observation) and digital photography (post meal and pre-post meal), while the weighing method (gold standard) was performed by the researcher.

Results: The independent sample t-test analysis showed that there was no difference in the estimation results of the patient nutritional intake between the digital photography method compared with Comstock and weighing methods (energy assessments respectively $p = 0,727$ FW vs. C; $p = 0,763$ FW vs. PM; $p = 0,829$ FW vs. PPM; $p = 0,966$ C vs. PM; $p = 0,894$ C vs. PPM and protein assessment $p = 0,865$ FW vs. C; $p = 0,848$ FW vs. PM; $p = 0,761$ FW vs. PPM; $p = 0,980$ C vs. PM; $p = 0,893$ C vs. PPM). Limits of agreement from the Bland-Altman Plot between methods compared to weighing on assessing energy are -46,21 to 32,22 (Comstock), -45,80 to 33,55 (post meal), and -43,22 to 34,63 (pre-post meal) while on assessing protein are -1,74 to 1,46 (Comstock), -1,79 to 1,47 (post meal), and -1,88 to 1,37 (pre-post meal).

Conclusion: Digital photography methods (post meal) have the potential to be applied for assessing patient nutritional intake in hospitals.

Keywords: Comstock method, digital photography method, food weighing method, nutritional intake, energy, protein.

¹ Student of Nutrition and Health Undergraduate Program, FK-KMK UGM

² Lecturer of Nutrition and Health Undergraduate Program, FK-KMK UGM