

## INTISARI

### Perbandingan antara Metode Observasi Langsung dan Dua Jenis Metode Foto Digital dalam Pemantauan Asupan Makanan Pasien IRNA I Rumah Sakit Umum Pusat Dr. Sardjito

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**Latar Belakang:** Malnutrisi dapat memperburuk kondisi pasien sehingga harus dicegah. Salah satu cara pencegahan malnutrisi pada pasien adalah pemantauan asupan makanan. Penelitian sebelumnya membuktikan metode foto digital dapat digunakan untuk memantau asupan makan pasien di rumah sakit. Akan tetapi metode foto digital belum pernah diujikan di Indonesia dan belum pernah dibandingkan dengan metode comstock. Oleh karena itu penelitian ini dilakukan.

**Tujuan Penelitian:** Membandingkan dua metode foto digital (*pre-post meal* dan *post meal*) dan metode comstock dengan metode penimbangan di rumah sakit di Indonesia.

**Metode:** Penelitian ini merupakan uji validasi terhadap dua metode foto digital dibandingkan dengan metode comstock dan metode penimbangan sebagai baku emas. Subjek penelitian (ahli gizi) menggunakan keempat metode untuk mengestimasi asupan makanan sampel penelitian (pasien). Besar sampel penelitian ini adalah 48 sampel yang diambil foto plato makan pagi dan makan siangnya, sehingga didapat total 96 plato. Setiap subjek mengestimasi plato dari sampel yang berbeda untuk menghindari bias.

**Hasil:** Kedua metode foto digital (*pre-post meal*:  $\kappa=0.684$ ,  $p<0.001$ ; *post meal*:  $\kappa=0.809$ ,  $p<0.001$ ) dan metode comstock ( $\kappa=0.727$ ,  $p<0.001$ ) memiliki derajat persetujuan yang kuat dan variabilitas yang cukup rendah. Metode foto digital *pre-post meal* memiliki persentase (%) estimasi diluar garis persetujuan paling kecil (8.3%) dibandingkan metode foto digital *post meal* (10.42%) dan comstock (9.3%) serta rentang *overestimation* dan *underestimation* yang lebih kecil dibandingkan *post meal*.

**Kesimpulan:** Dua metode foto digital dan metode comstock memiliki derajat persetujuan yang kuat sehingga dapat diterapkan di RSUP Dr. Sardjito.

**Kata Kunci:** Metode foto digital, metode comstock, metode penimbangan, asupan

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## ABSTRACT

### Comparison between Direct Observation Method and Two Types of Digital Photography Methods in Monitoring Patient's Dietary Intake at IRNA I Dr. Sardjito Central General Hospital

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**Background:** Malnutrition can worsen patient condition so it must be prevented. One way to prevent it is by monitoring patient's dietary intake. Previous studies have shown that digital photography method can be used to monitor patient's dietary intake in hospital. However this method has never been tested in Indonesia and have never been compared with comstock. Therefore this research was conducted.

**Objective:** To compare two types of digital photography methods (pre-post meal and post meal) and comstock method with food weighing method in hospital in Indonesia.

**Methods:** This study was a validity test toward two types of digital photography methods compared to comstock method and food weighing method as the gold standard. Research subjects (nutritionists) used the four methods to estimate research samples' (patients) dietary intake. Fourty eight samples were included from whom 96 breakfast and lunch meal-tray photos were obtained. Every subject estimated meal-tray from different patient to avoid bias.

**Results:** Both types of digital photography methods (pre-post meal:  $\kappa=0.684$ ,  $p<0.001$ ; post meal:  $\kappa=0.809$ ,  $p<0.001$ ) and comstock method ( $\kappa=0.727$ ,  $p<0.001$ ) have substantial level of agreement and small variability. Digital photography pre-post meal method has smaller percentage for estimation fell outside of the limits of agreement (8.3%) compared to post meal (10.42%) and comstock method (9.3%) and also has smaller overestimation and underestimation range compared to post meal.

**Conclusion:** Two types of digital photography and comstock method have substantial level of agreement so it can be applied in RSUP Dr. Sardjito.

**Keywords:** Digital photography method, comstock method, food weighing method, dietary intake

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