

Uji Validitas dan Reliabilitas *Semi-Quantitative Food Frequency Questionnaire* (SQFFQ) terhadap 24-Hour Recalls (24HR) dalam Menilai Konsumsi Zat Gizi Makro pada Balita di Kabupaten Sleman

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INTISARI

Latar Belakang: Masa awal kehidupan merupakan periode emas di mana pertumbuhan dan perkembangan terjadi dengan cepat. Penilaian konsumsi makanan pada balita penting dilakukan untuk mengetahui gambaran pola konsumsi makan pada balita. Metode SQFFQ mempunyai kelebihan dapat memberikan gambaran pola konsumsi makan pada masa lalu, namun kurang akurat sehingga diperlukan uji validitas dan reliabilitas dengan membandingkannya dengan metode yang lebih baik, dalam hal ini digunakan metode referensi 24HR.

Tujuan: Menghasilkan SQFFQ yang valid dan reliabel untuk menilai konsumsi zat gizi makro pada balita di Kabupaten Sleman.

Metode: Sampel dari penelitian ini berjumlah 102 balita berusia 1-5 tahun yang berdomisili di Kabupaten Sleman dengan teknik pengambilan sampel *cluster random sampling*. Pengkajian validitas dan reliabilitas dilakukan dengan menggunakan perbandingan nilai mean dan Wilcoxon *signed-rank test*, uji korelasi menggunakan Pearson's *correlation coefficient*, uji *cross-classification*, Bland Altman *plots*, serta sensitivitas dan spesifisitas.

Hasil: Analisis validitas menunjukkan terjadinya *overestimation* SQFFQ terhadap 24HR (8,1-32,6%) dengan perbedaan yang signifikan. Uji korelasi menunjukkan nilai korelasi yang cukup (0,344-0,579). Uji *cross-classification* menunjukkan *percent of agreement* yang tinggi (75-85%), dan Bland Altman *plots* menunjukkan subjek berada di batas LOA 94-97%. Secara umum uji sensitivitas menunjukkan SQFFQ memiliki sensitivitas yang kurang baik ($Se < 60\%$) dan spesifisitas yang cukup baik ($Sp > 60\%$) hingga sangat baik ($Sp > 90\%$). Analisis reliabilitas menunjukkan tidak terdapat perbedaan yang signifikan antara median SQFFQ 1 dengan SQFFQ 2 (-1,38–4,48%), dan uji korelasi menunjukkan nilai yang cukup tinggi (0,722-0,787). Uji *cross classification* menunjukkan *percent of agreement* yang tinggi (88,2-91,2%).

Kesimpulan: Berdasarkan berbagai hasil analisis yang telah dilakukan untuk mengkaji validitas dan reliabilitas dari SQFFQ, disimpulkan bahwa SQFFQ valid dan reliabel terhadap 24HR dalam menilai konsumsi zat gizi makro pada balita di Kabupaten Sleman.

Kata Kunci: validitas, reliabilitas, SQFFQ, 24-Hour Recalls, balita

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Validity and Reliability of Semi-Quantitative Food Frequency Questionnaire (SQFFQ) against 24-Hour Recalls (24HR) in Assessing Consumption of Macronutrient among Toddlers in Sleman Regency

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ABSTRACT

Background: Early life is a golden period in which growth and development occur quickly. It is important to assess food consumption in infants to find out the pattern of food consumption in infants. The SQFFQ method has the advantage of being able to provide a picture of past food consumption patterns, but it is less accurate so a validity and reliability test is needed by comparing it with a better method, in this case the 24HR reference method is used.

Objective: To produce a valid and reliable SQFFQ to assess consumption of macronutrients in children under five in Sleman Regency.

Methods: The sample of this study was 102 toddlers aged 1-5 years who live in Sleman Regency with cluster random sampling technique. The validity and reliability assessment was carried out using a comparison of the mean and Wilcoxon signed-rank test, correlation test using Pearson's correlation coefficient, cross-classification test, Bland Altman plots, and sensitivity and specificity.

Results: Validity analysis showed the SQFFQ overestimation of 24HR (8.1-32.6%) with a significant difference. Correlation test shows sufficient correlation value (0.344-0.579). The cross-classification test showed a high percent of agreement (75-85%), and Bland Altman plots showed that the subject was at the LOA limit of 94-97%. In general, the sensitivity test showed that SQFFQ had poor sensitivity (Se <60%) and good specificity (Sp > 60%) to very good (Sp > 90%). Reliability analysis showed that there was no significant difference between the SQFFQ 1 median and SQFFQ 2 (-1.38-4.48%), and the correlation test showed a high enough value (0.722-0.787). The cross classification test shows a high percent of agreement (88.2-91.2%).

Conclusion: Based on various analysis results that have been carried out to assess the validity and reliability of SQFFQ, it is concluded that SQFFQ is valid and reliable against 24HR in assessing the consumption of macronutrients in toddlers in Sleman Regency.

Keywords: validity, reliability, SQFFQ, 24-Hour Recalls, toddlers

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