Abstract Title
Inter-rater agreement of visual plate waste audits of patient trays

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Abstract

Background: Hospital plate waste audits provide important information about patient acceptance of menu items. Audits are routinely performed by Fraser Health (FH) Food Services, although there is no formal training and the degree of inter-rater reliability is unknown.

Objectives: To describe the inter-rater reliability of the visual quarter-waste method by analyzing and comparing the plate waste audit scores of two food service supervisors (FSS) at a FHhospital.

Methods: Two FSSs at a FH hospital independently used the validated visual quarter-waste method to evaluate the amount of entree and soup remaining on 162 patient trays. Trays containing either one or both menu items were included. Rater scores for the amount of food remaining for each item was compared using intraclass correlati on (ICC). Agreement between raters as to the presence or absence of the food item on the tray was analyzed using Kappa. All analyses were conducted using SPSS.

Results: There was consistency between scores for the amount of food remaining on trays. ICC for entrees (n=140) and soups (n=115) were 0.95 (95% CI: 0.93 - 0.97) and 0.87 (95% CI: 0.81 - 0.91), respectively ($p < 0.0001$). The kappa for agreement on the presence of menu items was 0.76 for entree (n=160) and 0.58 for soup (n=159) ($p < 0.0001$).

Conclusions: Plate waste audit scores had good to excellent agreement between raters. However, there was weak to moderate agreement between raters on the presence or absence of an item on the tray. Lack of formal training or rater fatigue could be contributing factors, but this requires further research.

Significance to Field of Dietetics: The level of agreement between raters means that the visual quarter-waste method audit data can be confidently used for menu decision making.