Validation of an Observational Measure to Capture Feeding Practices in Child Care Centers
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SUMMARY
We present the development and validation of the ‘Mealtime Observation in Child Care’ (MOCC) tool to measure teachers’ feeding practices with preschool (3-5 years) children.

BACKGROUND

- Childcare teachers’ feeding practices are related to children’s dietary intake.
- Current feeding practice measures are either not validated for use in childcare centers or do not include key constructs that influence children’s eating.

OBJECTIVE

To describe the development and validation of the ‘Mealtime Observation in Child Care’ (MOCC) toolkit (manual, coding checklist, scoring sheet, training videos) to measure teachers’ feeding practices with preschool (3-5 years) children.

METHODS

- MOCC was developed based on existing literature and previous 3 measures:
  - Feeding behavior coding system (FBCS)1
  - Environment and Policy Assessment and Observation- Extended Feeding Practices (EPAO-EFP)2
  - Table Talks (TT)3
- Additional constructs were included based on the literature
- The toolkit included:
  - Observational checklist
  - Detailed manual
  - Training videos
  - Scoring sheet
- Face and content validity of the tool was assessed by sending the toolkit to 4 external expert reviewers for feedback.
- Four trained coders watched and coded a video separately to assess inter-rater reliability calculating a Kappa statistic.
- Trained observers coded 41 lunchtime videos recorded in 10 childcare centers.
- Convergent validity was evaluated by relating MOCC items to previously validated measures including EPAO-EFP, TT, and FBBC.
- Descriptive statistics were calculated for demographic characteristics and scale constructs (Table 1).
- Pearson’s and bivariate correlations were calculated between MOCC items and items matched with other measures using IBM SPSS statistics v26.0.

RESULTS

- Expert reviewers provided feedback related to including additional verbal examples, clarifying the difference between “unable to observe” and “not applicable” and improving the formatting of the checklist.
- All 21 teachers in the 41 coded videos were full-time regular teachers serving 3-5-year-old children in centers participating in the Child and Adult Care Food Program (CACFP).
- Interrater reliability was high (Fleiss’s Kappa, K = 0.85).
- The convergent validity of the MOCC tool (Table 2) was high, among 9 subscales 8 were significantly associated to previous measures (r = 0.40 (p < 0.01) to 0.76 (p < 0.01)). Only item of MOCC that was not significantly correlated with TT item was Role Modeling Verbal Communication (RMVC). However, when a linear multivariate regression modeling was conducted to account for the collinearity of the variables, it was found that TT item was significantly and positively associated with the MOCC RMVC score (β = 0.368; p < 0.001).
- The teachers’ response to food refusal subscale was not significantly related to EPAO-EFP scale because children did not refuse foods in >50% of the lunchtimes observed.

ANALYSIS

- Descriptive statistics were calculated for demographic characteristics and scale constructs (Table 1).
- Pearson’s and bivariate correlations were calculated between MOCC items and items matched with other measures using IBM SPSS statistics v26.0.

REFERENCES


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