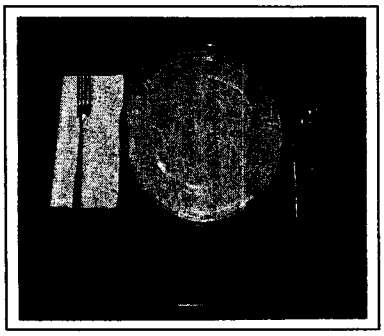
Results



Functional Outcomes

Results were analyzed using both ANOVA and independent t-tests (see Figure 2). Some of the challenging behaviors observed during the baseline and posttest conditions included yelling, spitting, distractibility, disturbing others, aggression, eating nonfood items, hoarding, and taking food from others. At Facility 1, there was more than a 1,000-calorie increase in the average 3-day calorie count from 3,277 at baseline to 4,338 calories at posttest. Although this did not achieve statistical significance ($p < .16$), the fact that the group improved was encouraging. Total COMFI score increased significantly ($p < .05$) from 54 at baseline to 74 at posttest, indicating an improvement in communication, function, and independence during meals. It is noteworthy to mention that within the COMFI measure, there were statistically significant increases from baseline to posttest in the frequency with which the residents engaged in conversations with staff ($p < .05$), the frequency with which residents started conversations with staff ($p < .01$), and the frequency with which questions were answered with on topic responses ($p < .01$). An improvement ($p < .16$) was also observed in the residents' ability to find and use their napkin. MAST scores at Facility 1 remained consistent from baseline (10.7) to posttest (10.8).

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At Facility 2, the average total calories consumed increased significantly ($p < .01$) from 3,571 to 4,475 calories. In addition, COMFI scores increased from 48 to 60 ($p < .115$), and MAST scores decreased from 6.2 to 4.8 ($p < .331$). These scores are indicative of overall improvement in measures of intake and functional independence related to mealtime experiences. With regard to the COMFI, residents demonstrated a statistically significant reduction in anxiety ($p < .01$), a decrease in assistance needed ($p < .01$), and an improved ability to follow simple directions ($p < .01$). Average scores for distractibility as rated by the MAST decreased significantly ($p < .05$) after the intervention.

Figure 2. Independent T-test results from baseline to posttest for calorie count, MAST, and COMFI.

	N	Baseline (mean)	Posttest (mean)	Significance (2-tailed)
3 day caloric intake				
Facility 1	11	3277.3182	4338.7000	.160
Facility 2	14	3571.3571	4475.8750	.013
Total MAST score				
Facility 1	11	10.72	10.81	.977
Facility 2	14	6.21	4.85	.331
Total COMFI score				
Facility 1	11	54.00	72.09	.018
Facility 2	14	48.28	60.71	.115

Facility staff were asked their opinion of the changes in lighting. In particular, if they felt that the changes had an effect on the residents. Surprisingly, at Facility 2, where the lighting changes were most dramatic, the staff felt that they themselves had experienced the most positive changes. Comments included, "Now I can see what I am doing," "It is a lot nicer to work in here now," "It's more cheery in the dining area," and "Family members noticed the change right away!" The implementation of the dining room changes enticed several residents and staff to participate in arranging the table clothes. Their interest in the improvements being made highlights that fact that staff and residents enjoy enhancing their surroundings and like to be included in activities that affect their environment.

Staff commented, "Now I can see what I am doing!"