

# Parental nutrition literacy, perceptions, and dietary practices as predictors of children Food consumption patterns in low and high-income households

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## BACKGROUND

Parents' food and nutrition literacy and dietary practices are important social contexts that may drive the food choices and practices of children.

## AIM OF STUDY

To evaluate the influence of various parental behaviors on healthy (fruits & and vegetables) and unhealthy snack consumption patterns of 10-12-year-old children belonging to low and high-income families.

## METHODS

**Study Design:** A school-based mixed methods study comprising qualitative inductive inquiry and cross-sectional survey in Mumbai, India.

**Participants:** 1) Focus Group Discussions with parents (n=42) of selected children from high and low SES households  
2) Survey with children (n=586) and their parents (n=286)

### Outcomes of Interest

- Food & Nutrition Literacy - Cognitive domain - Basic food and nutrition knowledge, food, and health information, food safety practices, and portion size estimates;**
- Food & Nutrition Literacy - Skill domain - Functional F&N literacy, food choice, and purchase literacy, nutrition label literacy, critical thinking, and self-efficacy.**
- Dietary Data - Semi-quantitative FFQ and 24 h DRs**
- Covariates - Household food security, family socioeconomic status, maternal working condition, and home food environment measures.**

## RESULTS

Figure 1: Food and Nutrition Literacy (FNL) scores of child-parent dyads (n=286)

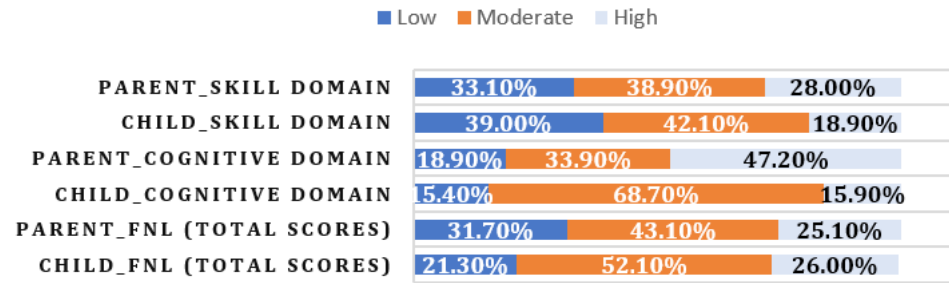


Table 1: Association between parental factors and children's consumption patterns

Parental F&N Literacy and Consumption Patterns	Children's Food Consumption Patterns			
	High SES Households (n=324)		Low SES Households (n=262)	
	F&V > 5 serves/d	UnHFC (lowest tertile) <sup>a</sup>	F&V > 5 serves/d	UnHFC (lowest tertile) <sup>a</sup>
<b>Demographic Characteristics</b>				
Parent Sex- Men	0.89 (0.81- 0.92)	1.04 (0.89- 1.21)	1.13 (0.93-1.22)	1.28 (1.06- 1.41)
Mother's education	<b>1.65 (1.08- 1.92)*</b>	0.98 (0.76- 1.21)	<b>1.83 (1.78-2.02)*</b>	1.12 (1.06-1.22)
Mother's present occupation	1.09 (0.91- 1.27)	0.66 (0.52- 0.81)	0.98 (0.86-1.02)	1.02 (0.95-1.14)
<b>Parent FNL</b>				
<b>Composite F&amp;N L Scores</b>	<b>2.29 (1.78- 2.67)**</b>	1.15 (1.05- 1.35)	<b>2.10 (1.9-2.20)*</b>	1.12 (1.03- 1.21)
<b>Composite Cognitive Domain</b>	<b>1.52 (1.14- 1.83)*</b>	1.42 (1.16- 1.71)	0.98 (0.96-1.06)	0.92 (0.88-1.11)
Basic F&N knowledge scale	1.23 (0.98- 1.41)	0.58 (1.95- 2.86)**	0.88 (0.62-1.01)	0.90 (0.85-1.20)
Food & health information scale	1.07 (1.03- 1.08)	1.01 (0.89-1.21)	<b>2.86 (2.38- 3.09)**</b>	1.06 (1.01-1.12)
Food safety and portion size	1.01 (0.8801.12)	0.85 (0.77-0.92)*	1.01 (0.98-1.10)	0.90 (0.85-0.98)
<b>Composite Skill domain</b>	1.32 (1.18-1.48)*	1.03 (0.89-1.26)	1.19 (0.82-1.26)	0.95 (0.92-1.01)
Functional FNL	1.01(0.92- 1.12)	0.86 (0.79-1.02)	1.37 (0.81-1.83)	<b>0.58 (0.33-0.81)**</b>
Food Choice L scale	<b>1.36 (1.13- 1.58)*</b>	1.12 (0.82- 1.32)	1.16 (1.07-1.22)	1.19 (1.08-1.29)
Nutrition label L scale	0.98 (0.67- 1.31)	<b>0.62 (0.57-0.77)*</b>	1.03 (0.96-1.12)	1.08 (0.93- 1.14)
Critical skill L scale	<b>1.59 (1.27- 1.82)*</b>	0.78 (0.68- 1.02)	<b>2.72 (2.38-2.99)**</b>	1.31 (0.85- 1.93)
<b>Parents' consumption</b>				
F&V (> 5 servings/d)	<b>3.91 (3.37- 4.15)**</b>	-	1.77 (0.71-0.83)	-
Unhealthy foods (lowest tertile)	-	0.86 (0.67- 1.12)	-	<b>3.82 (3.63-4.01)**</b>

Data as odds ratio and 95% confidence interval. UnHFC, Unhealthy food consumption; F&N, Food and Nutrition, L, Literacy  
Reference Values: Mother's education- 10<sup>th</sup>/8<sup>th</sup> Pass, Mother's occupation-housewife, FNL items - Low score. \*p <0.05, \*\*p <0.001

## KEY TAKEAWAYS

- Parents' FNL and dietary practices are inextricably linked to children's food consumption patterns
- High parental FNL scores and better F&V intakes were associated with child's F&V consumption
- Parents' FNL and dietary practices are modifiable factors that must be included as important targets to improve children's eating behaviors.

## CONCLUSION

The results highlighted a need to involve parents as key stakeholders in health promotion interventions and develop parent-targeted food and nutrition literacy programs to improve the quality of children's diets, irrespective of the socio-economic status of the families



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