

Supplementary Materials: Supplementary Tables S1-S5

Table S1. Item statistic for 18-item HFSSM reported in a sample of 222 participants.

| Response of HFSSM individual item (n = 222) | Affirmative responses^a N (%) | Negatives responses^a N (%) |
|--|--|--|
| Adult items | | |
| Worried food would run out | 171 (77) | 51 (23) |
| Food bought just didn't last | 141 (64) | 81 (37) |
| Couldn't afford to eat balanced meals | 155 (70) | 67 (30) |
| Adult cut size of meals or skipped meals | 132 (60) | 90 (41) |
| Adult ate less than felt they should | 144 (65) | 78 (35) |
| Adult cut size of meals or skipped meals in 3 or more months | 102 (46) | 120 (54) |
| Adult hungry buy didn't eat | 118 (53) | 104 (47) |
| Respondent lost weight | 69 (31) | 153 (69) |
| Adult did not eat for the whole day | 43 (19) | 179 (81) |
| Adult did not eat for whole day in 3 or more months | 29 (13) | 193 (87) |
| Child items | | |
| Relied on few kinds of low-cost food for children | 156 (70) | 66 (30) |
| Couldn't feed the children a balanced meal | 108 (49) | 114 (51) |
| Children were not eating enough | 35 (16) | 187 (84) |
| Cut size of children's meals | 9 (4) | 213 (96) |
| Children were hungry | 12 (5) | 210 (95) |
| Children skipped meals | 5 (2) | 217 (98) |
| Children skipped meals in 3 or more months | 4 (2) | 218 (98) |
| Children did not eat for whole day | 6 (3) | 216 (97) |

^a Affirmative responses were 'sometimes' or 'often true'; 'yes' or 'almost every month or some months'; negative responses were 'never true'; 'no' or 'only 1 or 2 months'.

Table S2. Food security status assessed by HFSSM in binary and categorical form, and NHS single item in a sample of 222 participants, and separately for young and older child groups.

| | Total (n =222) | Younger child group [<2 years] (n =88) | Older child group [2 - 5 years] (n = 134) |
|-------------------------------------|---------------------------|--|--|
| Australian NHS-1 item, n (%) | | | |
| Food secure | 141 (64) | 61 (58) | 80 (50) |
| Food insecure | 81 (37) | 27 (26) | 54 (34) |
| HFSSM, n (%) | | | |
| Food secure | 52 (23) | 21 (24) | 31 (23) |
| - High food security | 22 (10) | 9 (9) | 13 (8) |
| - Marginal food security | 30 (14) | 12 (11) | 18 (11) |
| Food insecure | 170 (77) | 67 (76) | 103 (77) |
| - Low food security | 72 (32) | 30 (29) | 42 (26) |
| - Very low food security | 98 (44) | 37 (35) | 61 (38) |

NHS, National Health Survey; HFSSM, Household Food Security Survey Module.

Table S3. Means, standard deviation and internal reliability of feeding practices for the separate younger and older child groups.

| | M±SD | Cronbach's α | Missing data (%) |
|---|-------------|---------------------------------------|-------------------------|
| Younger child group [<2 years] (n =105) | | | |
| - FPSQ-S | | | |
| Feeding on demand ^{a, d} (4 items) | 3.5±0.6 | 0.55 | 11 (11) |
| Foods to calm ^b (6 items) | 2.3±0.8 | 0.88 | 12 (11) |
| Persuasive feeding ^b (7 items) | 2.8±0.9 | 0.86 | 11 (11) |
| Parent-led feeding ^b (4 items) | 2.3±0.8 | 0.75 | 11 (11) |
| Family meal environment ^a (4 items) | 3.9±0.9 | 0.75 | 53 ^e (51) |
| Using(non-) food rewards ^b (9 items) | 1.9±0.9 | 0.94 | 55 ^e (52) |
| Older child group [2 -5 years] (n =159) | | | |
| - FPSQ-28 | | | |
| Reward for behaviour ^b (4 items) | 2.7±0.8 | 0.78 | 14 (9) |
| Reward for eating ^b (4 items) | 2.5±0.9 | 0.86 | 14 (9) |
| Persuasive feeding ^b (6 items) | 3.4±0.6 | 0.70 | 14 (9) |
| Covert restriction ^a (4 items) | 2.8±0.9 | 0.82 | 15 (9) |
| Structured meal setting ^a (3 items) | 3.7±0.9 | 0.81 | 15 (9) |
| Structured meal timing ^a (3 items) | 3.4±0.6 | 0.39 | 15 (9) |
| Overt restriction ^b (4 items) | 3.7±0.9 | 0.68 | 23 (15) |
| - FPI | | | |
| Offer new foods ^c (3 items) | 3.7±0.6 | 0.83 | 24 (15) |
| Encourage exploration of new foods ^c (3 items) | 3.9±0.9 | 0.90 | 24 (15) |
| Urge child to eat new foods ^c (4 items) | 3.6±0.6 | 0.58 | 25 (16) |
| Repeated presentation of new foods ^c (3 items) | 3.4±0.8 | 0.69 | 25 (16) |

M±SD, Mean ± standard deviation; FPSQ-S/28, Feeding Practices and Structure

Questionnaire; FPI, Food Parenting Inventory

^a Construct related to structure

^b Construct related to coercive control

^c Construct related to autonomy support

^d Higher feeding on demand score indicated more adherence to feeding routine.

^e This was due to these constructs applying to fathers with children aged one year or above (n =56). True missing values were four to six (7-11%) for these constructs.

Table S4. Count and proportion for family meal setting, and bivariate analyses with food security status, household and work chaos for older child group.

| Older child group [2 – 5 years] | | Total count n=134 | HFSSM food security ^a | | CHAOS score ^b n =133 | Work chaos score ^b n =133 |
|------------------------------------|-----------|-------------------------|----------------------------------|------------------------|---------------------------------------|--|
| | | | Food secure n=31 | Food insecure n=103 | | |
| | | n (%) | | | M±SD | |
| Family meal setting | Never | 5 (4) | 0 | 5 (5) | 17.80±3.90 | 1.20±1.30 |
| | Rarely | 9 (7) | 2 (7) | 7 (7) | 18.56±4.25 | 1.56±1.74 |
| | Sometimes | 23 (17) | 6 (19) | 17 (17) | 16.26±3.97 | 1.04±1.07 |
| | Often | 54 (40) | 11 (36) | 43 (42) | 16.76±4.43 | 1.06±1.27 |
| | Always | 43 (32) | 12 (39) | 31 (30) | 15.14±4.77 | 1.48±1.33 |
| | | | p = 0.755 | | p =0.183 | p =0.471 |

HFSSM, Household Food Security Survey Module; CHAOS, Confusion, Hubbub, and Order Scale

^a Fisher's Exact test was used to test for household food security status

^b One-way ANOVA was used to test for CHAOS and work chaos scores

Table S5. Regression models examining individual effects and combining effects of food security, household and work chaos on paternal feeding practices for younger and older child groups.

| | | | Regression Models | | | | | | | | | |
|--|--------------------|-----------------|--------------------------------|-------------|--|-------------|---------------------------------|-------------|--|-------------|---|-------------|
| | | | 1 | | 2 | | 3 | | 4 | | 5 | |
| Feeding practices | | IV | B (95% CI) | p- value | B (95% CI) | p- value | B (95% CI) | p- value | B (95% CI) | p- value | B (95% CI) | p- value |
| Younger child group [<2 years] ^a | | | | | | | | | | | | |
| Coercive control | Using food to calm | FI ^b | 0.291 (-0.109, 0.691) | 0.152 | - | - | - | - | 0.208 (-0.175, 0.592) | 0.284 | 0.213 (-0.174, 0.601) | 0.277 |
| | | HC | - | - | 0.067 (0.003, 0.104) | <0.001 | - | - | 0.066 (0.029, 0.103) | <0.001 | 0.069 (0.031, 0.108) | <0.001 |
| | | WC | - | - | - | - | -0.057 (-0.193, 0.078) | 0.404 | - | - | -0.086 (-0.018, 0.073) | 0.403 |
| | | | R ² : 0.013 (n=87) | | R ² : 0.124 ^{***} (n=86) | | R ² : -0.004 (n= 84) | | R ² : 0.126 ^{***} (n=86) | | R ² : 0.132 ^{**} (n=84) | |
| | Persuasive feeding | FI ^b | 0.530 (0.091, 0.969) | 0.019 | - | - | - | - | 0.514 (0.083, 0.944) | 0.02 | 0.511 (0.072, 0.95) | 0.023 |
| | | HC | - | - | 0.065 (0.022, 0.107) | 0.003 | - | - | 0.062 (0.02, 0.103) | 0.004 | 0.063 (0.02, 0.106) | 0.005 |
| | | WC | - | - | - | - | -0.054 (-0.206, 0.099) | 0.487 | - | - | -0.049 (-0.191, 0.094) | 0.498 |
| | | | R ² : 0.052* (n=88) | | R ² : 0.087 ^{**} (n=87) | | R ² : -0.006 (n=85) | | R ² : 0.134 ^{***} (n=87) | | R ² : 0.126 ^{**} (n=85) | |
| | Parent-led feeding | FI ^b | 0.275 (-0.128, 0.678) | 0.178 | - | - | - | - | 0.296 (-0.117, 0.708) | 0.157 | 0.313 (-0.103, 0.729) | 0.139 |
| | | HC | - | - | 0.021 | 0.293 | - | - | 0.019 | 0.332 | 0.021 | 0.317 |

| | | | | | | | | | | | | |
|--|-------------------------|--------------------------------|--------------------------------|-------------------------------|----------------------------------|--------------------------------|--------------------------------|-------------------------------|----------------------------------|-------------------------------|----------------------------------|-------|
| Structure | Family meal environment | | | | (-0.019, 0.061) | | | | (-0.02, 0.059) | | (0.02, 0.061) | |
| | | WC | - | - | - | - | -0.007 (-0.143, 0.129) | 0.919 | - | - | -0.004 (-0.139, 0.131) | 0.952 |
| | | | R ² : 0.01(n=88) | | R ² : 0.001(n=87) | | R ² : -0.012 (n=86) | | R ² : 0.013 (n=87) | | R ² : 0.005 (n=86) | |
| | | FI ^b | -0.025 (-0.59, 0.539) | 0.928 | - | - | - | - | 0.002 (-0.558, 0.562) | 0.994 | 0.016 (-0.555, 0.587) | 0.955 |
| | | HC | - | - | -0.039 (-0.094, 0.015) | 0.153 | - | - | -0.039 (-0.094, 0.016) | 0.158 | -0.036 (-0.094, 0.022) | 0.218 |
| | WC | - | - | - | - | -0.052 (-0.231, 0.127) | 0.561 | - | - | -0.053 (-0.233, 0.127) | 0.555 | |
| | | R ² : -0.021 (n=49) | | R ² : 0.023 (n=49) | | R ² : -0.014 (n=48) | | R ² : 0.001 (n=49) | | R ² : -0.024(n=48) | | |
| Older child group [2 – 5 years] ^a | | | | | | | | | | | | |
| Coercive control | Reward for behaviour | FI ^b | 0.328 (-0.003, 0.660) | 0.021 | - | - | - | - | 0.178 (-0.156, 0.512) | 0.294 | 0.168 (-0.166, 0.501) | 0.322 |
| | | HC | - | - | 0.046 (0.016, 0.077) | 0.003 | - | - | 0.042 (0.011, 0.074) | 0.008 | 0.039 (0.008, 0.071) | 0.015 |
| | | WC | - | - | - | - | 0.096 (-0.012, 0.204) | 0.082 | - | - | 0.07 (-0.037, 0.177) | 0.2 |
| | | | R ² : 0.021 (n=134) | | R ² : 0.057** (n=133) | | R ² : 0.015 (n=133) | | R ² : 0.058** (n=133) | | R ² : 0.062** (n=133) | |
| | Reward for eating | FI ^b | 0.145 (-0.236, 0.525) | 0.453 | - | - | - | - | 0.034 (-0.358, 0.426) | 0.865 | 0.032 (-0.036, 0.426) | 0.871 |
| | | HC | - | - | 0.037 (0.002, 0.073) | 0.041 | - | - | 0.038 (0.000, 0.073) | 0.051 | 0.036 (-0.001, 0.073) | 0.057 |
| | | WC | - | - | - | - | 0.030 (-0.096, 0.156) | 0.637 | - | - | 0.009 (-0.0117, 0.136) | 0.883 |

| | | | | | | | | | | | | |
|-----------|--------------------|-------------------------|---------------------------------|------------------------------|---------------------------------|-------|----------------------------------|-------|---------------------------------|-------|---------------------------------|-------|
| Structure | Persuasive feeding | | R ² : -0.003 (n=134) | | R ² : 0.024* (n=133) | | R ² : -0.006 (n=133) | | R ² : 0.017 (n=133) | | R ² : 0.009 (n=133) | |
| | | FI ^b | 0.260 (0.015, 0.505) | 0.038 | - | - | - | - | 0.245 (-0.011, 0.501) | 0.06 | 0.240 (-0.016, 0.497) | 0.066 |
| | | HC | - | - | 0.014 (-0.01, 0.038) | 0.244 | - | - | 0.009 (-0.015, 0.033) | 0.469 | 0.007 (-0.017, 0.032) | 0.545 |
| | | WC | - | - | - | - | 0.042 (-0.04, 0.124) | 0.31 | - | - | 0.032 (-0.031, 0.114) | 0.445 |
| | | | R ² : 0.025* (n=134) | | R ² : 0.003 (n=133) | | R ² : 0.000 (n=133) | | R ² : 0.022 (n=133) | | R ² : 0.019 (n=133) | |
| | Overt restriction | FI ^b | 0.043 (-0.312, 0.399) | 0.810 | - | - | - | - | -0.121 (-0.478, 0.235) | 0.503 | -0.129 (-0.486, 0.228) | 0.477 |
| | | HC | - | - | 0.036 (0.004, 0.069) | 0.029 | - | - | 0.039 (0.005, 0.072) | 0.023 | 0.037 (0.003, 0.070) | 0.033 |
| | | WC | - | - | - | - | 0.067 (-0.047, 0.181) | 0.249 | - | - | 0.05 (-0.065, 0.165) | 0.389 |
| | | | R ² : -0.007 (n=134) | | R ² : 0.029* (n=133) | | R ² : 0.003 (n=133) | | R ² : 0.025 (n=133) | | R ² : 0.023 (n=133) | |
| | Covert restriction | FI ^b | -0.013 (-0.376, 0.349) | 0.942 | - | - | - | - | 0.094 (-0.279, 0.466) | 0.62 | 0.095 (-0.279, 0.470) | 0.615 |
| | | HC | - | - | -0.02 (-0.054, 0.014) | 0.256 | - | - | -0.022 (-0.056, 0.013) | 0.224 | -0.021 (-0.056, 0.014) | 0.242 |
| | | WC | - | - | - | - | -0.022 (-0.014, 0.097) | 0.719 | - | - | -0.013 (-0.133, 0.108) | 0.837 |
| | | | R ² : -0.008 (n=134) | | R ² : 0.002 (n=133) | | R ² : -0.007* (n=133) | | R ² : -0.003 (n=133) | | R ² : -0.011 (n=133) | |
| | | Structured meal setting | FI ^b | -0.210 (-0.558, 0.139) | 0.236 | - | - | - | -0.123 (-0.484, 0.237) | 0.5 | -0.123 (-0.486, 0.239) | 0.502 |
| | | HC | - | - | -0.023 (-0.056, | 0.165 | - | - | -0.021 (-0.054, | 0.23 | -0.021 (-0.055, | 0.236 |

| | | | | | | | | | | | | |
|------------------|------------------------------------|-----------------|---------------------------------|-------|----------------------------------|-------|---------------------------------|-------|---------------------------------|-------|---------------------------------|-------|
| Autonomy support | | | | | 0.01) | | | | 0.013) | | 0.014) | |
| | | WC | - | - | - | - | -0.014 (-0.129, 0.101) | 0.815 | - | - | 0.001 (-0.116, 0.117) | 0.987 |
| | | | R ² : 0.003 (n=134) | | R ² : 0.007 (n=133) | | R ² : -0.007 (n=133) | | R ² : 0.003 (n=133) | | R ² : -0.005 (n=133) | |
| | | FI ^b | -0.011 (-0.366, 0.147) | 0.400 | - | - | - | - | -0.052 (-0.316, 0.212) | 0.699 | -0.045 (-0.310, 0.219) | 0.735 |
| | Offer new foods | HC | - | - | -0.027 (-0.051, -0.003) | 0.025 | - | - | -0.026 (-0.051, -0.002) | 0.037 | -0.025 (-0.050, 0.000) | 0.054 |
| | | WC | - | - | - | - | -0.058 (-0.142, - 0.027) | 0.178 | - | - | -0.043 (-0.128, 0.042) | 0.317 |
| | | | R ² : -0.002 (n=134) | | R ² : 0.03 (n=133) | | R ² : 0.006 (n=133) | | R ² : 0.024 (n=133) | | R ² : 0.024 (n=133) | |
| | | FI ^b | -0.131 (-0.485, 0.224) | 0.467 | - | - | - | - | -0.088 (-0.458, 0.282) | 0.638 | -0.083 (-0.454, 0.288) | 0.659 |
| | Exploration of new foods | HC | - | - | -0.019 (-0.053, 0.015) | 0.269 | - | - | -0.017 (-0.052, 0.018) | 0.332 | -0.016 (-0.051, 0.02) | 0.382 |
| | | WC | - | - | - | - | -0.046 (-0.163, 0.072) | 0.442 | - | - | -0.035 (-0.154, 0.084) | 0.563 |
| | | | R ² : -0.004 (n=134) | | R ² : 0.002 (n=133) | | R ² : -0.003 (n=133) | | R ² : -0.004 (n=133) | | R ² : -0.009 (n=133) | |
| | | FI ^b | -0.194 (-0.505, 0.116) | 0.217 | - | - | - | - | -0.074 (-0.389, 0.241) | 0.642 | -0.078 (-0.394, 0.239) | 0.629 |
| | Repeated presentation of new foods | HC | - | - | -0.041 (-0.07, -0.012) | 0.005 | - | - | -0.04 (-0.069, -0.01) | 0.009 | -0.04 (-0.07, -0.011) | 0.008 |
| | | WC | - | - | - | - | -0.002 (-0.105, 0.101) | 0.972 | - | - | 0.022 (-0.079, 0.124) | 0.664 |
| | | | R ² : 0.004 (n=134) | | R ² : 0.051** (n=133) | | R ² : -0.008 (n=133) | | R ² : 0.045* (n=133) | | R ² : 0.039* (n=133) | |
| | | | | | | | | | | | | |

B, Unstandardised coefficients; CI, Confidence Interval; FI, Food insecurity; HC, Household chaos; IV, Independent variable; R^2 , Coefficient of determination; WC, Work chaos

^a Younger child group completed FPSQ-S; Older child group completed FPSQ-28 and FPI

Coding for categorical variables (where 0 is the reference group):

^b Dummy coded: food insecure = 1, food secure = 0

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$