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HCHS/SOL FLOR Investigator Use Database Overview

INV2 - September 2024

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The Hispanic Community Health Study / Study of Latinos (HCHS/SOL)
SOL FLOR Investigator Use Database
INV Version 2.0, September 2024

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TRACKING TABLE OF DATA RELEASES (VERSION CONTROL)

Version	Date	Description	Documentation
_INV1	9/8/2023	Preliminary Data	V1.0 (Sept. 2023)
_INV2	9/20/2024	Final Data (N=291 dyads) Changes from _INV1: - Excluded data from 4 dyads due to protocol violations (age at screening >9yrs, child's disability). - Updated FLOR_PART_DERV (additional variables and corrected variables; See Dictionary). - Added file FLOR_HEI including Healthy Eating Index (HEI2010) and its components. - CMUE (separate variables for years and months were combined into a single variable; separate variables for hours and minutes were combined into a single variable). - CSHE (separate variables for hours and minutes were combined into a single variable). - PATE (separate variables for hours and minutes were combined into a single variable).	V2.0 (Sept. 2024)

1. INTRODUCTION

This document describes the content and structure of the Investigator Use datasets for the Family Lifestyle Outcomes Research study (SOL FLOR), an ancillary study to HCHS/SOL that seeks to investigate the role of pre-conceptional maternal health status on the development of childhood obesity and to understand drivers of overeating, such as food reward related behaviors and psychological stress of women as predictors of child feeding practices and weight. This database contains all the data collected for the 291 mother-child dyads enrolled and consented from September 2019 to September 2022. The average number of years between HCHS/SOL baseline and FLOR ancillary is 11.0±1.1 years (range: 8.5 to 13.8 years). The content of the release is limited by constraints (described within) to preserve participant confidentiality by de-identifying the data.

2. STUDY OBJECTIVES

I. Examine the association between preconception maternal cardiometabolic biomarkers and child's (ages 3-9 years) weight and adiposity status.
II. Identify maternal socio-behavioral predictors of child's weight and adiposity while accounting for genetic susceptibility, preconception maternal cardiometabolic biomarkers, socio-demographic factors, mental health and lifestyle behaviors.
III. Identify early modifiable correlates of child's weight and adiposity.

3. STUDY DESIGN AND PROTOCOL IMPLEMENTATION

SOL FLOR built on the research infrastructure and data collection protocols of the HCHS/SOL and was conducted in the 4 field centers (Bronx, Chicago, Miami, and San Diego). The study invited HCHS/SOL women participants that reported a pregnancy resulting in a live singleton birth by Visit 2. During data collection, additional participants who had a live singleton birth after Visit 2 were identified and invited to participate.

UNC single IRB approved FLOR protocol in August 2019. First dyads were enrolled in September 2019. Due to COVID-19, sites stopped seeing participants in-person in mid-March 2020. After receiving approval from HCHS/SOL Ancillary Study Committee, the protocol was modified to collect data in two modes each with their own consent: mode 1 included remote data collection and mode 2 in-person data collection. **Appendix I** includes a table (Table 7.2 in FLOR Manual or Procedures) with SOL FLOR procedures and questionnaires, pre-COVID-19 and by modes 1 and 2 during COVID-19 pandemic. When human research was allowed to resume, field center staff scheduled the in-person clinic visit (mode 2) following COVID protocols established for visit 3 in the HCHS/SOL parent study.

During remote data collection (mode 1) verbal consent was obtained and questionnaires were administered via telephone or HIPAA compliant videoconference call to the mother only.

The in-person visit (model 2) followed FLOR original protocol with the following changes:

1. The DXA procedure was not conducted.
2. Second parental consent was not required due to no DXA procedure.
3. Saliva collection was performed by the mother preferably and following directions from FLOR staff keeping social distance.
4. Questionnaires could be collected remotely and preferably within a month of the in-person clinic visit.

As a last resource to increase the number of participants, in March 2022 the protocol was modified to allow conducting a videoconference to assist and observe the mom obtaining the anthropometric measurements and collecting the saliva sample remotely. The protocol also allowed for clinic staff to perform the measurements outside the participant's home. Participants were provided with a NUTRI FIT scale (with batteries on) that they could keep, a measuring tape and a saliva collection kit. **Table 1** provides the number of dyads by type of visit.

Table 1. Number of FLOR dyads by type of protocol (N=291)

FLOR Protocol Type	N	%
Pre-COVID	79	27.1
Mode 1 (phone) only	64	22.0
Mode 1 (phone) and Mode 2 (at clinic)	133	45.7
Mode 1 (phone) and Mode 2 (remote)	15	5.2

3.1. Participants

SOL FLOR recruited mother-child dyads: women participants from HCHS/SOL cohort and their first born either after baseline (N=222) or after clinic visit 2 (N=5). The child needed to be 3 to 9 years old at the time of recruitment/agreement to participate.

Inclusions:

- Biological mother is an HCHS/SOL participant.
- First child born after the biological mother's baseline or visit 2.
- Child must be 3 to 9 years at the time of recruitment/consent/agreement to participate. The COVID-19 protocol change allowed children being more than 9 years old at in-person visit (mode 2); fifteen children were less than 10 years old at enrollment (mode 1) but had turned 10 by mode 2.

Exclusions:

- Mother participant is not the legal guardian of the child.
- Child does not reside with the mother at least 5 days/week.
- Child has any disability (mental or physical).

3.2. Schedule of SOL FLOR Participant Data

Table 2 lists the number of data collection forms collected during the SOL FLOR examination among the 291 mother-child dyads. See section 5 for a brief description of each procedure and questionnaire form. The following administrative forms are not released: ELEB (individual eligibility), ICTE (informed consent), ICRE (remote interview informed consent), CHKE (clinic checklist), CPPB (child pediatric provider), PHTE (phantom for saliva biospecimen), SSWB (saliva specimen), MAE (minor adverse events), and UPR (unanticipated problems). In addition, the ANTE form (anthropometry) is not released but weight and height are included in the Participant Derived file (FLOR_PART_DERV_INV2).

Table 2. SOL FLOR Assessment Battery

Questionnaires	Form Code	Count	# of Unique Subjects
CHILD			
Administrative			
Demographic Information	DEMB	291	
Questionnaires			
Child Eating Behavior	CEBE	291	
Child Feeding Habits	CFHE	291	
Child Care	CHCE	230	
Child Health	CHQE	291	
Child Media Use	CMUE	230	
Child Sleep Habits	CSHE	230	
Child Hospitalizations	HSPE*	92	61
Child PA and Transportation	PATE	230	
Pubertal Development Assessment	PDAE**	60	
Procedures			
Dual energy X-ray absorptiometry (body composition)	DXAE	75	
Delayed Gratification	MATE	211	
Dietary Files			
Nutrients at the Meal Level	F03A*	2864	275
Nutrients at the Day Level	F04A*	477	275
Food Serving Counts at the Meal Level	F08A*	2864	275
Food Serving Counts at the Day Level	F09A*	477	275
MOTHER			
Questionnaires			
Caregiver's Feeding Style	CFSE	291	
Home Food Inventory	HFIE	214	
Mother Acculturation Stress	MASE	291	
Modified Yale Food Addiction	MFAE	291	
Reward Based Eating Drive	REDE	291	
Well-Being	WBQE	229	
DERIVED VARIABLE FILES			
Healthy Eating Index (HEI) Derived (child)	FLOR_HEI	269	
Participant Derived (child and mother)	FLOR_PART_DERV	291	

*Multiple-record form. See section 5 for key fields that uniquely identify each record.

**There are only 60 participants because the questionnaire was administered only for children >= 9 years old.

4. DATABASE STRUCTURE

4.1. Dataset Organization

There is one table (SAS dataset) in the database for each type of data collection form. The data values from one completed paper form are stored in one record in the corresponding table (observation in the SAS dataset). Each data item on a paper form is stored as one or more columns (variables) in the dataset. Collection of direct measurements during examination procedures can be entered in a form, resulting in the creation of a data file.

A derived variable dataset (FLOR_PART_DERV) has been created including mother and child variables. The derived variable algorithms have been included in the separate document titled "*SOL FLOR Derived Variable Dictionary*."

A codebook has been produced with descriptive statistics for every variable in the dataset including median, mean, standard deviation, min and max for continuous variables and frequency and meaning of the variables' values for categorical variables. A detailed review of this codebook, together with the forms, is critical to interpret the data. Analysts are *strongly* encouraged to use the codebooks, paying attention to the data user notes contained in this document.

4.2. Form and data Set Naming Conventions

Each SOL FLOR data collection instrument (Form) has a unique four-letter mnemonic associated with it (e.g., CEBE for the Child Eating Behavior Form). The corresponding data sets begin with the same first four letters of the mnemonic, followed by the character string "_INV2" for Investigator Use, Version 2. For example, the file name of the Child Eating Behavior Form is "CEBE_INV2". The naming convention serves both to identify the originating form and provide version control when subsequent generations of datasets are produced. Specialized reading center records like the nutrients file at the day level (F04A_INV2) can deviate from this general study naming convention. Note, the questionnaire battery for the SOL FLOR ancillary study has both English and Spanish language versions of the forms, and these have been merged into one common data record format which follows the main HCHS/SOL study conventions.

4.3. Key Fields for Data Records

The unique identifier of a data record within a file is determined by the HCHS/SOL mother participant ID which is the same as the one in the HCHS/SOL main study and all its ancillary studies. It corresponds to a random 8-digit identification code, unique to each HCHS/SOL participant. SOL FLOR database also includes ID_CHILD as the child unique identifier and when available the father HCHS/SOL ID (named ID_DAD).

4.4. Common Variables Across Data Sets

The variable FORM appears in all data sets except for administrative and procedure forms (DEMB, DXAE, and MATE), the 24hr dietary recall data files (F03A, F04A, F08A, F09A), and FLOR_PART_DERV. It is useful in identifying the language of form administration:

FORM: The original 4-letter form code that appears on the paper-based forms follows HCHS/SOL convention of having the fourth letter designate the language version in use. Use this variable to detect changes in language of administration ("E" for English language forms versus "S" for the Spanish language version).

4.5. Variable Naming Conventions

SOL FLOR variables are unique to a specific form. To link every data item to the form, this form-specific variable names begin with the same four characters as the dataset name and then the question number as indicated on the form. For instance, question 1 on the child eating behavior questionnaire CEBE, "My child loves food", is named CEBE1 on the corresponding SAS file, CEBE_INV2.

4.6. Changes to Variables to Preserve Confidentiality

As part of the study commitment to comply with HIPAA regulations for participant confidentiality and in following guidelines from NIH, the Collaborative Studies Coordinating Center has made explicit modifications and/or deletions to variables that were common across all forms. However, the authorized users will need to actively attend to the security and confidentiality of these Investigator Use files as part of the end user agreement.

1) All participant IDs were re-derived in all Investigator Use data files as a random identifier code to protect the confidentiality of the participants. This ID is the same masked identifier used in all HCHS/SOL clinic visits and ancillary studies.
2) STAFF IDs were deleted across all forms and not substituted.
3) The child pediatric provider form (CPPB) is not released due to confidentiality because it collects the name, address, and phone number of the healthcare providers.
4) The date of birth, social security number, and name of the child participants were omitted from the demographic information dataset (DEMB_INV2).
5) DATE OF BIRTH of the child was converted to age at SOL FLOR enrollment (AGE_CHILD_ENROLL) and age at SOL FLOR clinic visit (AGE_CHILD_CLINDATE and AGE_CHILD_CLINDATE_MO) in FLOR_PART_DERV_INV2.

4.7. Missing Values

The study datasets employ a standard set of special missing value codes (see codebook) that have contextual meaning. Since SAS allows numeric variables to assume up to 27 unique missing values, ".A to .Z and .", HCHS/SOL Coordinating Center uses several of these special missing codes to convey additional meaning to the analyst. The following table describes the usage of missing values in SOL FLOR.

Missing value	Meaning
. or blank	Empty field, missing
.S	Skipped field

Selective recodes may need to be made to make use of known refusals, or to account for skip patterns in coding derived variables based on multiple items in a form. Using SAS, analysts are strongly encouraged to detect missing values by using "**<= .Z**" which will detect special missing values rather than "**= .**", which will not. Alternatively, the SAS missing function can be used to return a TRUE/FALSE value (1/0) for the presence of missing values.

5. DESCRIPTION OF SOL FLOR DATA COLLECTION FORMS

5.1. Child Participant

5.1.1. Administrative Forms

5.1.1.1. Demographic Information (DEMB)

This administrative form has one record per participant and collects the demographic data of the child and the family members. In addition, the mom was asked to report the father's weight if she knew it (DEMB6A).

5.1.2. Questionnaire Forms

5.1.2.1. Child Eating Behavior (CEBE)

The questionnaire asks the mother about the child's eating behavior. It has one record per participant. The responses are recorded using a 5-point Likert scale with 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Always.

References:

Wardle J, Guthrie CA, Sanderson S, Rapoport L. Development of the Children's Eating Behaviour Questionnaire. *J Child Psychol Psychiatry*. 2001;42(7):963-970. doi:10.1111/1469-7610.00792

Carnell S, Wardle J. Measuring behavioural susceptibility to obesity: validation of the child eating behaviour questionnaire. *Appetite*. 2007;48(1):104-113. doi:10.1016/j.appet.2006.07.075

5.1.2.2. Child Feeding Habits (CFHE)

The questionnaire asks the mother about the child's habit while eating. Questions were obtained from the Pregnancy, Infection, and Nutrition Study (PIN) (https://epidpin.web.unc.edu/) by Siega-Riz. It has one record per participant.

5.1.2.3. Child Care (CHCE)

The questionnaire asks the mother about who cares for the child in addition to day care, preschool or school and about the child's interaction with smokers within and outside of the household. Questions were obtained from the Pregnancy, Infection, and Nutrition Study (PIN) (https://epidpin.web.unc.edu/) by Siega-Riz. The file structure is one record per participant.

5.1.2.4. Child Health (CHQE)

The questionnaire asks the mother about the child's health history since birth, health care coverage, and any federal assistance programs received by the family. Questions were obtained from the Pregnancy, Infection, and Nutrition Study (PIN) (https://epidpin.web.unc.edu/) by Siega-Riz. The file structure is one record per participant.

5.1.2.5. Child Media Use (CMUE)

The questionnaire is based on questions 5, 6, 8 to 11, and 13 of the Zero to Eight Study. It asks the mother about the child's media use habits such as how often the child engages in activities related to media use, if they have never done the activities, and at what age they first did the activity. The file structure is one record per participant.

Reference:

Rideout V, VJR Consulting. *Zero to Eight: Children's Media Use in America*. (Bozdech B, ed.). Common Sense Media; 2011. Accessed June 4, 2024. https://www.commonsensemedia.org/sites/default/files/research/report/zerotoeightfinal2011.pdf

5.1.2.6. Child Sleep Habits (CSHE)

The questionnaire asks the mother about the child's sleeping habits and possible difficulties sleeping during the week before they respond to this questionnaire. The file structure is one record per participant.

Reference:

Owens JA, Spirito A, McGuinn M. The Children's Sleep Habits Questionnaire (CSHQ): psychometric properties of a survey instrument for school-aged children. *Sleep*. 2000;23(8):1043-1051.

5.1.2.7. Child Hospitalizations (HSPE)

Each child hospitalization reported is entered as a separate record. Overnight emergency room visits are not included. Hospitalizations may be recorded in any date order. This is a file with multiple records per participant. The key fields that uniquely identify each record are ID and OCCURRENCE.

5.1.2.8. Child PA & Transportation (PATE)

The questionnaire asks the mother about the child's participation in physical activities and transportation for daycare, preschool, or school. Questions 2 to 3 in PATE are based on item D11 from the Toybox Project Core Questionnaire, and questions 4 to 6 are based on items D8 to D10. The file structure is one record per participant.

References:

Toybox Project. Accessed June 4, 2024. http://www.toybox-study.eu/

Toybox Study Core Questionnaire. Toybox Project. Accessed June 4, 2024. http://www.toybox-study.eu/?q=en/system/files/Core-questionnaire.pdf

Manios Y, Androutsos O, Katsarou C, et al. https://pubmed.ncbi.nlm.nih.gov/25047374/ *Obes Rev*. 2014;15 Suppl 3:5-13. doi:10.1111/obr.12175

Mouratidou T, Miguel ML, Androutsos O, et al. Tools, harmonization and standardization procedures of the impact and outcome evaluation indices obtained during a kindergarten-based, family-involved intervention to prevent obesity in early childhood: the ToyBox-study. *Obes Rev*. 2014;15 Suppl 3:53-60. doi:10.1111/obr.12183

González-Gil EM, Mouratidou T, Cardon G, et al. Reliability of primary caregivers reports on lifestyle behaviours of European pre-school children: the ToyBox-study. *Obes Rev*. 2014;15 Suppl 3:61-66. doi:10.1111/obr.12184

5.1.2.9. Pubertal Development Assessment (PDAE)

The questionnaire is used to assess the prepubescent stage of the child participants aged 9 years and above. It asks about signs of pubertal development and was administered with the mother and child. The file structure is one record per participant.

Reference:

Carskadon MA, Acebo C. A self-administered rating scale for pubertal development. *J Adolesc Health*. 1993;14(3):190-195. doi:10.1016/1054-139x(93)90004-9

5.1.3. Procedure Forms

5.1.3.1. Anthropometry (ANTE)

The ANTE form is *excluded* from the data release of the SOL FLOR Investigator Use Database because the child participants' height and weight were moved to the FLOR_PART_DERV_INV2 to be in the same file as the derived CDC z-scores. Refer to "*SOL FLOR Derived Variable Dictionary*" for the variable definitions.

Note that the anthropometry measurements were taken using the Tanita scale for children who came to the clinic (n=133) and using the Nutrifit scale for those children who had a home visit (n=15). Only children who had their measurements done using the Tanita scale have fat percent, basal metabolic rate, impedance, fat mass, fat-free mass, and total body water. Since the minimum age that the Tanita scale allows for user to input is 7, the sites were instructed to put age 7 for children less than 7 years old. Hence, values for the aforementioned anthropometry measurements for younger children may not be reliable because the Tanita scale uses a model for children 7 or older.

5.1.3.2. Dual energy X-ray absorptiometry (DXAE)

This form records the results from the dual-energy X-ray absorptiometry (DXA) scan to measure body composition on the child. It was performed only on the pre-COVID participants (i.e., those who came to the clinic before March 1, 2020). This form has one record per participant. The Hologic Discovery QDR series (Model 010-1549) was employed in Chicago, Miami and San Diego field centers, whereas the GE Lunar (Model Prodigy) was employed only in the Bronx.

5.1.3.3. Delayed Gratification (MATE)

This form is used to record the child's behavior during the Delayed Gratification procedure. It has one record per participant.

The MATE form had two versions which were combined in MATE_INV2. Version 1 was employed only in September 2019, and version 2 starting in October 2019. All six questions are identical in both forms. But question 6 asks about the child's behavior during the 15-minute wait time with six options to choose from: five behaviors and one option for other behaviors not listed (variables MATE6A through MATE6F). In version 1, the data management system did not allow the sites to select multiple options. In version 2, the sites could select multiple options for MATE6, and these were hardcoded for participants who completed the version 1 form (n=10) to match the version 2 variables.

5.1.4. Dietary Files

Nutrition Data System for Research (NDSR) version 2020 was used to collect the 24-hour dietary recalls. Recalls were collected by trained research assistants at each study site. Data was processed and QC by the Diet, Physical Activity and Body Composition Core of the Nutrition Obesity Research Center (NORC) at UNC; grant Number: DK56350. To maintain the overall NORC funding, it is important to cite their grant number in any published papers.

Files and variables are named according to NDSR manual (https://www.ncc.umn.edu/products/ndsr-user-manual/). See Appendix 10 "Food Group Serving Counts" of NDSR Manual 2020 for detailed descriptions as well as examples of food servings and groupings.

5.1.4.1. Nutrients at the Meal Level (F03A)

This file contains micro and macro nutrients for each eating occasion and the attributes of each meal. This file has multiple records per participant. The key fields that uniquely identify each record are ID, RECALLNUM, and MEALID.

5.1.4.2. Nutrients at the Day Level (F04A)

This file contains daily micro and macro nutrient totals per day, with one record for the 1st and one record for the 2nd 24hr dietary recall. The key fields that uniquely identify each record are ID and RECALLNUM.

5.1.4.3. Food Serving Counts at the Meal Level (F08A)

This file contains information for each eating occasion and the attributes of each meal. It records the serving counts for 174 food subgroups, associated with 9 major food categories, for each eating occasion. This file has multiple records per participant. The key fields that uniquely identify each record are ID, RECALLNUM, and MEALID.

5.1.4.4. Food Serving Counts at the Day Level (F09A)

This file contains the food serving counts per day for 174 food subgroups, associated with 9 major food categories, with one record for the 1st and one record for the 2nd 24hr dietary recall. This file has multiple records per participant. The key fields that uniquely identify each record are ID and RECALLNUM.

5.2. Mother Participant

5.2.1. Questionnaire Forms

5.2.1.1. Caregiver's Feeding Style (CFSE)

The questionnaire asks the mother about her interactions with her child during the dinner meal. It has one record per participant. The responses are recorded using a 5-point Likert scale with 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Most of the times, and 5 = Always.

References:

Hughes SO, Power TG, Orlet Fisher J, Mueller S, Nicklas TA. Revisiting a neglected construct: parenting styles in a child-feeding context. *Appetite*. 2005;44(1):83-92. doi:10.1016/j.appet.2004.08.007

Birch LL, Fisher JO, Grimm-Thomas K, Markey CN, Sawyer R, Johnson SL. Confirmatory factor analysis of the Child Feeding Questionnaire: a measure of parental attitudes, beliefs and practices about child feeding and obesity proneness. *Appetite*. 2001;36(3):201-210. doi:10.1006/appe.2001.0398

5.2.1.2. Home Food Inventory (HFIE)

The questionnaire asks the mother whether a selection of food products is present anywhere in their home (opened or unopened). It is self-administered at home and has one record per participant.

Reference:

Fulkerson JA, Nelson MC, Lytle L, Moe S, Heitzler C, Pasch KE. The validation of a home food inventory. *Int J Behav Nutr Phys Act*. 2008;5:55. Published 2008 Nov 4. doi:10.1186/1479-5868-5-55

5.2.1.3. Mother Acculturation Stress (MASE)

The questionnaire is based on the Acculturative Stress Form from SOL Youth, another HCHS ancillary study. It asks the mother about her experiences in the US over the past year. The file structure is one record per participant. The responses are recorded using a 5-point Likert scale with 1 = Not at all, 2 = Very little, 3 = Moderately, 4 = Very often, and 5 = Almost always.

Reference:

Hovey JD, King CA. Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *J Am Acad Child Adolesc Psychiatry*. 1996;35(9):1183-1192. doi:10.1097/00004583-199609000-00016

5.2.1.4. Modified Yale Food Addiction (MFAE)

The questionnaire asks the mother about her eating habits in the past 12 months. It has one record per participant. There are 9 questions in total. Questions 6 and 7 are yes-no questions, while for questions 1 to 5 and 8 to 9, the responses are recorded using a 5-point Likert scale with 1 = Never, 2 = Once a month, 3 = 2-4 times a month, 4 = 2-3 times a week, and 5 = 4 or more times per week or daily.

References:
Flint AJ, Gearhardt AN, Corbin WR, Brownell KD, Field AE, Rimm EB. Food-addiction scale measurement in 2 cohorts of middle-aged and older women. *Am J Clin Nutr*. 2014;99(3):578-586. doi:10.3945/ajcn.113.068965

Gearhardt AN, Corbin WR, Brownell KD. Preliminary validation of the Yale Food Addiction Scale. *Appetite*. 2009;52(2):430-436. doi:10.1016/j.appet.2008.12.003

Gearhardt AN, Corbin WR, Brownell KD. Food addiction: an examination of the diagnostic criteria for dependence. *J Addict Med*. 2009;3(1):1-7. doi:10.1097/ADM.0b013e318193c993

5.2.1.5. Reward Based Eating Drive (REDE)

The purpose of this questionnaire is to assess the reward-related eating behaviors of the mothers. It asks the participants about some of the ways they may have felt or behaved during the past week. The file structure is one record per participant. The responses are recorded using a 5-point Likert scale with 0 = Strongly Disagree, 1 = Disagree, 2 = Neither Agree nor Disagree, 3 = Agree, and 4 = Strongly Agree.

Reference:
Mason AE, Vainik U, Acree M, et al. Improving Assessment of the Spectrum of Reward-Related Eating: The RED-13. *Front Psychol*. 2017;8:795. Published 2017 May 30. doi:10.3389/fpsyg.2017.00795

5.2.1.6. Well Being (WBQE)

This questionnaire assesses the mother's well-being status. The first ten questions (WBQE1 to WBQE10) are from the Center for Epidemiologic Studies Depression Scale (CES-D) and ask about the participants' feelings or behaviors during the past week. The responses for the CES-D questions are recorded using a scoring scale from 0 to 3, with 0 = Rarely or none of the time (<1 day), 1 = Some or a little of the time (1-2 days), 2 = Occasionally or a moderate amount of time (3-4 days), and 3 = All of the time (5-7 days). The next seven questions (WBQE11 to WBQE17) are from the Generalized Anxiety Disorder 7-item (GAD-7) scale and ask about the participants' feelings or behaviors over the last two weeks. The responses for the GAD-7 questions are recorded using a scoring scale from 0 to 3, with 0 = Not at all, 1 = Several days, 2 = More than half the days, and 3 = Nearly every day. The file structure is one record per participant.

References:
Andresen EM, Malmgren JA, Carter WB, Patrick DL. Screening for depression in well older adults: evaluation of a short form of the CES-D (Center for Epidemiologic Studies Depression Scale). *Am J Prev Med*. 1994;10(2):77-84.

Spitzer RL, Kroenke K, Williams JB, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med*. 2006;166(10):1092-1097. doi:10.1001/archinte.166.10.1092

6. DERIVED FILES

6.1. Healthy Eating Index-2010 (FLOR_HEI)

The Healthy Eating Index-2010 (HEI-2010; Guenther et al., 2013) was calculated from the two 24hr dietary recalls administered to the mother about the child's dietary intake. The HEI2010 is a measure of overall diet quality, independent of quantity, which can be used to assess compliance with the 2010 Dietary Guidelines for Americans and to monitor changes in dietary patterns. It includes **twelve dietary components** (nine adequacy and three moderation components) that reflect key aspects of diet quality, including fruit, vegetables, grains, dairy, protein foods, fatty acids, sodium, and empty calories. Components scores can range from 0-5, 0-10, or 0-20, and 2010-HEI score ranges from 0 to 100 with a higher score indicating greater consistency of the diet with the 2010 Dietary Guidelines for Americans.

The file has each of the 12 HEI components (HEI1 to HE12) and the final HEI2010score. In addition, it includes intermediate variables used to calculate the HEI score. See the SOL FLOR Derived Variable Dictionary for details on how it was scored.

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Guenther PM, Kirkpatrick SI, Reedy J, Krebs-Smith SM, Buckman DW, Dodd KW, Casavale KO, Carroll RJ. The Healthy Eating Index-2010 is a valid and reliable measure of diet quality according to the 2010 Dietary Guidelines for Americans. J Nutr. 2014 Mar;144(3):399-407.

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NDSR Guide to Creating Variables Needed to Calculate Scores for Each Component of the Healthy Eating Index-2010 (HEI-2010) developed by the Nutrition Coordinating Center (NCC), University of Minnesota, Minneapolis, MN

6.2. Participant Derived File (FLOR_PART_DERV)

The participant derived file dataset is not associated with any particular form because it contains variables from many forms and files. There is one record per mother-child dyad (291 observations) in SOL FLOR. This file is a cross-section of "derived variables" for children and child whose values are defined based on combinations of data items. See "*SOL FLOR Derived Variable Dictionary*" for the definitions of the variables included in this special purpose file.

Since the sample size is small, complex sample design is not needed for the analysis.

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APPENDIX II. [Table 7.2 in MOP] SOL FLOR Procedures & questionnaires, pre-COVID-19 and by modes 1 and 2 during the pandemic.

Questionnaire or Procedure	Form code	Time of administration	Pre-COVID-19 Clinic Visit	Mode 1 (Remote[a])	Mode 2 (Clinic Visit)
ADMINISTRATIVE					
Pre-visit screening (eligibility)	ELE	3	Yes	Yes	Yes
Reception, itinerary checklist form	CHK	15	Yes		Yes
Informed consent/assent tracking	ICT/ICR	3-10	Yes	ICR	ICT
Child Demographic Information	DEM	3	Yes	Yes	
Exit interview & Interviewer Assessment of Interview	IAI	2	Yes		Yes
PROCEDURE					
Saliva Swab (child)	SSW	3-15	In-person		In-person or remote (performed by mom)
Marshmallow task (child)	MAT	10-15	In-person		In-person
Anthropometry (child)	ANT	5	In-person		In-person
DXA (child)	DXA	5-10	In-person		WILL NOT BE DONE
24-hr dietary recall, supplements (parent about child)	--	15-30	In-person (1st) & phone (2nd)	Remote (1st)	Remote[b] (2nd)
QUESTIONAIRES					
CHILD (staff-administered to the mom)					
Assessment of Prepubertal Development Scale[c] (only for ≥9 yrs old)	PDE	3	In-person		In-person or remote[b]
Health Questionnaire	CHQ	7	In-person	Remote (Q1-Q5)	In-person or remote[b] (Q6-Q7)
Hospitalizations	HSP	3	In-person		In-person or remote[b]
Feeding Habits	CFH	2	In-person	Remote	
Eating Behavior	CEB	3	In-person	Remote	
Child Care	CHC	3	In-person		In-person or remote[b]
Media Use & Sedentary Behavior	CMU	8	In-person		In-person or remote[b]
Physical Activity & Transportation to School	PAT	4	In-person		In-person or remote[b]
Sleep Habits	CSH	5	In-person		In-person or remote[b]
MOTHER					
Caregiver's Feeding Styles	CFS	4	In-person	Remote	
Reward Based Eating Drive Scale	RED	1.5	In-person	Remote	
Modified Yale Food Addiction Scale	MAF	3	In-person	Remote	
Well Being (Depression and Anxiety)	WBQ	3	In-person		In-person or remote[b]
Acculturation Stress	MAS	3	In-person	Remote	
Home Food Inventory/availability (completed at home)	HFI	20	Self-administered		Self-administered

[a] Preferred order for Mode 1 (remote) questionnaires: CFH, CEB, CFS, RED, MAF, MAS, CHQ and DEM.

[b] Questionnaires for mode 2 should be administered within a month of in-person clinic-visit. It can be while scheduling the in person visit or after it.

[c] For children ≥9, we will assess prepubescent stage through a questionnaire administered with the mom and child that quires about signs of pubertal development.