HATCH Study Measure Descriptions

Up to date: 2/27/18

(\*NOTE: Postpartum MRI visit still subject to change\*)

**Addition to Postpartum Survey**

Full Name: Additional Postpartum Survey

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 2, 6-level scale questions, 1, 5-level scale question, part of Qualtrics Questionnaire

Number of Questions: 3

Description: Questions about time taken off of work, if their employer offers paid parental leave, and their current childcare arrangement.

**Adult Attachment Scale Revised (1996)**

Full Name: Revised Adult Attachment Scale (Collins, 1996)

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 5-level Likert scale, part of Qualtrics Questionnaire

Number of Questions: 18

Description: This is the 1996 revised version of the Adult Attachment Scale (Collins & Read, 1990). This scale is used to determine the adult attachment style of each participant. Participants rate how well different statements represent how they generally feel in romantic relationships. There are three subscales, each composed of six items: close, depend, and anxiety. “The Close scale measures the extent to which a person is comfortable with closeness and intimacy. The Depend scale measures the extent to which a person feels he/she can depend on others to be available when needed. The Anxiety subscale measures the extent to which a person is worried about being rejected or unloved.” Alternative scoring can be done to compute two attachment dimensions: attachment anxiety (model of self) and attachment avoidance (model of other) (Collins, 2008).

**ASQ**

Full Name: Ages & Stages Questionnaires, ASQ-3, ASQ 6 Months

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 3-level scale (not yet, sometimes, yes) and Yes/No questions, part of Qualtrics Questionnaire

Number of Questions: 38

Description: ASQ is a developmental screening tool that uses a collection of age appropriate questions to understand the level of development of a child (from ages 2 months – 5.5 years) in the following categories: “communication, gross motor, fine motor, problem-solving, and personal-social” (“ASQ-3,” 2017). The 6-month version is used during our 6 Month Postpartum visit (3).

**ASQ 12 Month**

Full Name: Ages & Stages Questionnaires, ASQ-3, ASQ 12 Months

Visit: 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 3-level scale (not yet, sometimes, yes) and Yes/No questions, part of Qualtrics Questionnaire

Number of Questions: 39

Description: ASQ is a developmental screening tool that uses a collection of age appropriate questions to understand the level of development of a child (from ages 2 months – 5.5 years) in the following categories: “communication, gross motor, fine motor, problem-solving, and personal-social” (“ASQ-3,” 2017). The 12-month version is used in our 1-year follow-up online Qualtrics questionnaire.

**ASQ 2 + 4 Month**

Full Name: Ages & Stages Questionnaires, ASQ-3, ASQ 2 Months and 4 Months

Visit: 3 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 3-level scale (not yet, sometimes, yes) and Yes/No questions, part of Qualtrics Questionnaire

Number of Questions: 58

Description: ASQ is a developmental screening tool that uses a collection of age appropriate questions to understand the level of development of a child (from ages 2 months – 5.5 years) in the following categories: “communication, gross motor, fine motor, problem-solving, and personal-social” (“ASQ-3,” 2017). The 2-month and 4-month versions are combined in our 3-month follow-up online Qualtrics Questionnaire.

**Baby Interaction / Play**

Full Name: Baby Interaction (6 minutes structured play, 4 minutes free play)

Visit: (3) 6 Months Postpartum

Participant(s): A, B, and C

Type of Data: Approximately 10-minute video with audio. Some of the earlier families have transcriptions for the baby interaction video as well; however, we are no longer transcribing this section of video.

Number of Questions: N/A

Description: During the first section (6 minutes), parents are given a book, a piece of white paper, and some fat crayons, and told to try to teach C to turn the pages of the book and scribble on the piece of paper with the crayons. These tasks are typically too advanced for the development level of C at 6-months, so we are looking at how the parents handle that situation. During the second section (4 minutes), parents are told to play with C as they would at home.

**Baby Temperament Task**

Full Name: Laboratory Temperament Assessment Battery, Lab-TAB, Specific tasks: Masks and Puppet Game

Visit: (3) 6 Months Postpartum

Participant(s): C

Type of Data: Video with audio.

Number of Questions: N/A.

Description: C sits in a high chair with A or both parents off to the side. This task attempts to elicit an array of emotion from C. In the first section, C is shown three different scary masks for 10 second intervals. In the second section, C observes an interactive, scripted puppet show where C is tickled and given time at the end to independently play with the puppets. This task is currently only used for retrieving short, emotional video clips to be used in B’s postpartum MRI visit.

**BCQ**

Full Name: Baby Care Questionnaire

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 4-level scale (strongly disagree, disagree, agree, strongly agree), part of Qualtrics Questionnaire

Number of Questions: 30

Description: Participants are asked how strongly they agree/disagree with each statement. “[They] designed the BCQ to measure parents’ endorsement of structure and attunement... Structure represents reliance on regularity and routines in daily life. Attunement represents reliance on infant cues and close physical contact. [They] suggest parent’s relative endorsement of these parenting principles is related to their choices about practices such as feeding, holding, and night-time sleeping... The BCQ is a parent-report measure of parenting principles and practices during infancy… [and] contains three sections: sleeping, feeding, and soothing… This measure can be used to monitor long-term effects of these early principles and practices on child social and cognitive development… and for comparisons between parents of healthy infants and infants ‘at risk’ (Winstanley & Grattis, 2013). There are approximately 10 questions within each section; however, some questions cross multiple sections.

**BDI-II**

Full Name: Beck Depression Inventory – II

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 18, 4-level scale questions and 2, 7-level scale questions, part of Qualtrics Questionnaire

Number of Questions: 20

Description: Participants are asked what best describes the way they have been feeling during the past two weeks, including today. The BDI-II is the 1996 revision of the original BDI. It was created to measure the severity of depression in an individual. Typically containing 21 questions, the HATCH study has adjusted it to use only 20 questions, omitting the question about suicidal thoughts or wishes. By doing this, we were able to gain IRB approval without having an intervention plan in place.

**Behavioral Faces Task**

Full Name: Behavioral Faces Task, Explicit Faces Task

Visit: Prenatal MRI

Participant(s): B

Type of Data: Behavioral

Number of Questions:

Description: This task is completed after B is no longer in the MRI machine. For this task, the father indicates which emotion best describes the face that he sees: anger, disgust, fear, happiness, sadness, or surprise. The participant views the same emotional expressions presented during the MRI scan as well as some additional emotions. This neurocognitive test is to explicitly measure facial emotion recognition (Marsh et al., 2014). This task takes about six minutes to complete.

Location on laptop: Desktop-->Stoycos\_MRI-->Explicit\_faces-->faces\_inlab

**BFI**

Full Name: Big Five Inventory

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 5-level Likert scale, part of Qualtrics Questionnaire

Number of Questions: 44

Description: Participants rate how much they agree/disagree with statements regarding their personal characteristics. The Big Five Inventory measures five dimensions/traits of personality: (1) Extraversion vs. Introversion, (2) Agreeableness vs. Antagonism, (3) Conscientiousness vs. lack of direction, (4) Neuroticism vs. emotional stability, and (5) Openness vs closed-ness to experience. Each of the five larger dimensions is divided further into “personality facets” (John & Srivastava, 1999).

**Birth Experiences Rating Scales**

Full Name: Birth Experiences Rating Scales (For Mothers or For Fathers), Birth Experience Questionnaire

Visit: (2) Perinatal

Participant(s): A and B \*But the scales slightly differ

Type of Data: Survey, Likert scale (Not at all – | – | – Somewhat – | – | – Extremely), completed on paper

Number of Questions: 10

Description: A short survey given to the parents during the Perinatal visit after the birth narrative. The mother’s version asks about how she felt during the process, if she feared for her or her baby’s life, how involved and supportive she felt her partner was, and about the experience as a whole. The father’s version asks about how he felt during the process, if he feared for his partner’s or baby’s life, how helpful and supportive he felt he was, and about the experience as a whole. This brief measure was created by Dr. Darby Saxbe.

**Birth Narrative**

Full Name: Birth Narrative

Visit: (2) Perinatal

Participant(s): A and B

Type of Data: Audio recording and transcription

Number of Questions: Participants are asked to tell the story of their birth experience, and there are 11 optional prompts.

Description: Couples are asked to tell the story of their birth experience, starting from the beginning and including as much detail as possible. Narratives include the account of the events, experiences, and feelings surrounding the birth event. Prompted by some questions, the story is jointly told by the mother and father. Narratives are typically around 15 minutes in length, and research assistants transcribe the recordings later.

**Birth Records**

Full Name: Medical Records for Birth, A and C

Visit: (2) Perinatal

Participant(s): A and C

Type of Data: Medical records / Birth charts, Biological, Medical

Number of Questions: N/A

Description: The medical history of the mother and baby, specifically for the birth event, acquired from the hospital or birthing center where the birth took place. If it was a home birth, we ask for the midwife’s notes. We have the mother sign medical release forms for these documents during the prenatal visit and date them at the perinatal visit. The (final) data collected from these medical records can be found in the SPSS document: Team AB Birth Records. This dataset includes: Date and time of birth; Sex; Gestational age; Birth weight, length, head circumference; APGAR scores; Mode of delivery; Reason for C-section; Induction; Use of Epidural, Pitocin; Labor length; Labor complications for the mother, baby; and Extra surgeries.

**Blood**

Full Name: Blood samples

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Biological

Number of Questions: N/A

Description: During both the Prenatal and Postpartum visits, we collect 2 EDTA tubes worth (approximately 12mL) of blood from both A and B. The blood is collected at the end of the visit after all saliva samples have been given and Qualtrics questionnaires have been completed. Amastatin is then added to the blood samples before they are centrifuged. The plasma is then aliquoted into 6 different tubes (2 x 1mL tubes and one 4mL tube) x 2. The second batch of three tubes are backup. 0.5mL of plasma are added to the 1mL tubes and 2.5mL of plasma are added to the 4mL tubes. These samples are then frozen and shipped for analysis to determine cortisol, testosterone, and oxytocin levels.

**Brief COPE**

Full Name: Brief COPE, Abbreviated version of the COPE Inventory

Visit: (3) 6 Months Postpartum and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 4-level scale questions (I don’t do this at all, I do this a little bit, I do this a medium amount, I do this a lot), part of Qualtrics Questionnaire

Number of Questions: 28

Description: Brief COPE is a shortened version of the COPE Inventory. Brief COPE is a questionnaire designed to understand how the participant copes with a certain stress in his/her life. HATCH uses it in relation to the stress of pregnancy / expected birth (prenatal) and the recent birth of a child (postpartum). Fourteen different scales of coping are measured: self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame (Carver, 2007).

**Breast Milk**

Full Name: Breast Milk Sample

Visit: (3) 6 Months Postpartum

Participant(s): A

Type of Data: Biological

Number of Questions: N/A

Description: The couples is informed prior to the postpartum visit that they will be offered additional compensation if they provide a sample of breast milk. If A agrees, she will pump additional breast milk the night before or day of the visit. The amount varies, but is typically around 20mL. The breast milk is then vortexed, aliquoted, frozen, and shipped for analysis. Which hormone levels will be measured are still TBD. In the future, HATCH may look at how the breast milk’s composition is associated with the stool samples collected from C.

**Change Topics Questionnaire**

Full Name: Change Topics Questionnaire

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, on paper, 4-level scale questions (Never – Very often)

Number of Questions: 23 (22 specific questions and 1 open ended “other”)

Description: A series of 22 questions where participants separately rate, on a scale of 0 – 4, how much they would like to change that part of their relationship. Participants complete this questionnaire at both the prenatal and postpartum visits. Their answers are used by the RAs during each visit to choose topics for the Conflict Discussion.

**Conflict Discussion**

Full Name: Conflict Discussion

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Video with audio and transcription

Number of Questions: One open-ended overarching prompt with 3 or 4 (varying) specific topics

Description: During the prenatal and postpartum visits, RAs review the participants’ answers to the Change Topics Questionnaire and determine a few topics in which both participants wish to change, or topics in which there is a large discrepancy between the two desires. The participants are given a list of these topics and asked to discuss them as they would at home and each get their point across. This discussion lasts 15 minutes. The video is transcribed later by an RA. This video and transcription is then coded by a separate RA using the observational coding scheme, The Specific Affect Coding System (SPAFF). The SPAFF uses verbal content and tone, facial expressions, gestures, and body movements to code for positive, negative, and neutral behaviors.

**Cry Sounds**

Full Name: Infant Cry Task

Visit: Prenatal MRI

Participant(s): B

Type of Data: Neurological and physiological: fMRI, Galvanic Skin Response (GSR)/skin conductance, and pulse

Number of Questions: N/A

Description: In the MRI, the father listens to sounds for 7 minutes: white noise and cry sounds. There is no interaction during this part. His neurological activity, GSR, and pulse are all recorded over the 7-minute duration.

**Demographic Information**

Full Name: Demographic Information and Miscellaneous Questions

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, Part of Qualtrics Questionnaire

Number of Questions: (1) Prenatal: 12; 3 Months Postpartum: 18; (3) 6 Months Postpartum: 18; 12 Months Postpartum: 26

Description: A few questions are asked at the beginning of each Qualtrics questionnaire that provide basic demographics, information about smoking, exercise, etc., and information to correctly match the questionnaire with the participant: Couple ID and A/B. These questions include: Age, gender, ethnicity/race, level of education, relationship status/living situation, weight, height, due date/baby’s birth date, baby’s birth weight, average exercise per week, average sleep per night, major illness history, smoking history, breastfeeding history, menstrual period information, placenta information, time taken off work, and plans for future children.

**Dyadic Adjustment Scale**

Full Name: Dyadic Adjustment Scale (DAS)

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 27, 6-level scale questions, 2, 5-level scale questions, 2, yes/no questions, and 1, 7-level scale question, part of Qualtrics Questionnaire

Number of Questions: 32

Description: The Dyadic Adjustment Scale is a relationship adjustment self-report measure where participants answer questions about their relationship with their partner. This scale measures relationship quality, in 4 subscales: dyadic consensus (extent of agreement with partner), dyadic satisfaction (extent of satisfaction with partner), dyadic cohesion (extent of participation in joint activities), and affectional expression (extent of agreement with partner in relation to emotional affection) (Spanier, 1976).

**DTI**

Full Name: Diffusion Tensor Imaging, MRI

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Structural MRI

Number of Questions: N/A

Description: During the prenatal MRI visit, after the father completes all of the functional tasks, he watches a movie for a few minutes while a few more MRIs are taken, including the DTI, which takes about 11 minutes. During the Postpartum MRI visit, the DTI comes between the second and third run of the Go/No-go functional task. The DTI is a neuroimaging technique that tracks the diffusion of water molecules to understand the structure of the white matter tracks (axon, myelin). By applying a diffusion gradient vector, the “diffusion tensor” can be calculated, which describes the location, orientation/direction, and anisotropy of the white matter tracks in the brain (Hermoye, 2013).

**Emotional Reactions Questionnaire**

Full Name: Emotional Reactions Questionnaire

Visit: (1) Prenatal

Participant(s): B (A few As also participated when the handgrip task was first implemented)

Type of Data: Survey, on paper, Likert-scale (Not at all – 2 – 3 – Neutral – 5 – 6 – Extremely-Well).

Number of Questions: 24

Description: After participants complete the handgrip task, they listen to the cry sound for 30 seconds and then complete 2 surveys, including the Emotional Reactions Questionnaire. For this survey, participants rate how well a list of adjectives describe their current mood. There are 6 subscales of this measure: Sadness, Empathy, Distress, Hostility, Happiness, and Quietness. The purpose of this survey is to better understand how the participant currently feels and interprets the cry sound.

**Experiences in Close Relationships (ECR-R)**

Full Name: Experiences in Close Relationships – Revised Questionnaire (ECR-R)

Visit: (1) Prenatal and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, Likert scale (Strongly Disagree to Strongly Agree), part of Qualtrics Questionnaire

Number of Questions: 36

Description: This is the revised (2000) version of the 1998 Experiences in Close Relationships Questionnaire. The ECR-R measures adult attachment style on two subscales of attachment: Avoidance and Anxiety. Participants indicate how much they agree or disagree about statements regarding how they generally feel in emotionally intimate relationships (Fraley, Waller, Brennan, 2000).

**Faces Task**

Full Name: Faces Task

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Button box numerical response (1, 2), neurological (fMRI), and physiological [Galvanic Skin Response (GSR)/skin conductance and pulse]

Number of Questions: 2 trails, 79 faces each

Description: The faces task is a functional task that B completes in the MRI. Before this task begins, an RA removes the third and fourth buttons from the button box. During this task, B sees a series of black and white faces (edited to contain only the face and have a back background) and indicates whether the face is male or female using the two remaining buttons on the button box (1 and 2). There are two trials, each about 300 seconds (5 minutes) long.

**Family Video Task**

Full Name: Family Video Task

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Button box numerical response (-2, -1, 1, 2), neurological (fMRI), and physiological [Galvanic Skin Response (GSR)/skin conductance and pulse]

Number of Questions: 2 trials, 30 videos each

Description: The family video task is the first task B completes in the MRI machine. During this task, B sees a series of short video clips containing his partner, a female stranger, a baby stranger, or his baby (during Postpartum MRI only) showing an emotion. B then rates on a scale of −2 to 2, using the button box with four buttons, how positive or negative that person was feeling. There are two trials, each about seven minutes long.

**Genotek (Saliva)**

Full Name: Genotek (Oragene Discover DNA Collection Kit for Research) (OGR-250)

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Biological

Number of Questions: N/A

Description: After all 6 saliva samples are collected and before the participants are offered snacks and drinks, the participant provides 2ml more of saliva directly into the Genotek container. This sample is then preserved and shipped for DNA analysis. The type of analysis is still being determined. Most likely, the HATCH study will select a DNA microarray type of assay to look at thousands of genes in the genome to better understand the genotype of some of our genes of interest.

**Go/No-Go Task**

Full Name: Go / No-Go Task, Go-NoGo

Visit: Postpartum MRI

Participant(s): B

Type of Data: Button box numerical response (1, 2), neurological (fMRI), and physiological [Galvanic Skin Response (GSR)/skin conductance and pulse]

Number of Questions: 3 trials, about 3 minutes each

Description: The Go/No-go task is a functional task B completes in the MRI machine. During this task, B plays a game where he presses the number 1 button as quickly as possible when he sees a letter appear on the screen, except for “X.” There are three, three minute trials, each with a different background noise distraction (silence, white noise, or baby cry). The order of these trials are randomized, and each trial is separated by a 10 minute structural scan (MPRAGE and DTI).

**Hair**

Full Name: Hair Sample, Finger Nail Sample

Visit: (1) Prenatal, (2) Perinatal, and (3) 6 Months Postpartum

Participant(s): A, B, and C

Type of Data: Biological

Number of Questions: N/A

Description: 50 – 100 hairs are tied together and then snipped from as close to the scalp as possible. These hair samples then shipped for analysis of cortisol levels. A and B provide samples during all three visits. C’s hair is collected during the perinatal and 6 Months Postpartum visit. If C does not have any hair to provide during the perinatal visit, finger nail clippings may be collected instead.

**Hand Grip Task**

Full Name: Hand Grip Task

Visit: (1) Prenatal and (3) 6 months postpartum

Participant(s): B (The first few A’s, when the procedure was first implemented, also participated)

Type of Data: Physiological

Number of Questions: 14 Trials, each consisting of a full-strength grip followed by a half-strength grip (28 total handgrips recorded).

Description: This task begins with a training session for B to understand how the handgrip dynamometer works. B grips the handgrip at full strength and then tries his best to grip the handgrip a second time at half of the strength in which he just gripped it. He trains and gets feedback until he can reliably grip the handgrip at full and then half strength within a margin of error (± 1) (approximately 3/5 times). When the real task begins, B puts on headphones and listens to cry sounds and white noise sounds while being prompted to complete this same handgrip task that was practiced. The purpose of this task is to determine how well B can attenuate his grip strength while listening to different sounds and how that is associated with risk factors in parental abuse. The analysis procedure of this task is still being determined.

**Heart Rate**

Full Name: Heart Rate, Pulse

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Physiological

Number of Questions: N/A

Description: Once in the MRI machine, a pulse monitor is connected to his middle or pointer finger. His pulse is then monitored and recorded. The data is used in association with the four tasks B participates in while in the MRI (Family Video, Why How, Faces, and Cry Sounds tasks).

**Hopes, Fears, and Expectations Discussion**

Full Name: Prenatal Hopes, Fears, and Expectations Discussion; Baby Discussion

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Video with audio and transcription

Number of Questions: Three open-ended prompts

Description: This is the first discussion during the prenatal visit. The participants sit together on the couch and discuss their hopes, fears, plans, and expectations for the arrival of the baby, and how they think they will adjust individually/as a couple. They are asked to talk about the birth itself as well as the first few months after the baby is born. This discussion is 10 minutes long and participants are given a sheet with three prompts to help remind them what was asked. This video is later transcribed by an RA.

**Hopes, Fears, and Expectations Update Discussion (Pregnancy and Parenting)**

Full Name: Postpartum Hopes, Fears, and Expectations Update Discussion

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Video with audio and transcription

Number of Questions: Five open-ended prompts

Description: This is the first discussion during the postpartum visit, usually happening after the Baby Interaction Task, depending on how the baby is feeling. The participants sit together on the couch and discuss how the past few months have been and how the experiences of giving birth and transitioning through parenthood has or has not matched up with their hopes, fears, plans, and expectations. This discussion is 5 minutes long. This video is later transcribed by an RA.

**IBQR**

Full Name: The Infant Behavior Questionnaire – Revised (IBQ-R) Very Short Form

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 8-level scale questions [Likert scale (Never – Always) plus Does Not Apply], part of Qualtrics questionnaire

Number of Questions: 37

Description: The Infant Behavior Questionnaire – Revised Very Short form is a questionnaire that uses a caregiver’s report to measure the temperament of an infant aged 3 – 12 months. The Very Short form measures temperament in three broad scales: Positive affectivity/surgency, negative emotionality, and orienting/regulatory capacity (Putman, Helbig, Gartstein, Rothbart, & Leerkes, 2014).

**Inv Model Scale**

Full Name: Investment Model Scale

Visit: 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 15, 4-level scale questions (Don’t Agree At All – Agree Completely), 22, 9-level scale questions (Do Not Agree At All – Agree Completely), part of Qualtrics questionnaire

Number of Questions: 37

Description: The Investment Model Scale measures commitment level (degree one intends to persist in the relationship), relationship satisfaction level (degree the relationship fulfills needs), quality of alternatives (degree that one believes needs could be fulfilled in another relationship), and investment size (measures perceptions of time invested and interconnectedness). For this scale, participants rate their level of agreement to statements regarding their current and past relationships (Rusbult, Martz, Agnew, 1998).

**IRI**

Full Name: Interpersonal Reactivity Index (IRI)

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 5-point Likert scale (Does not describe me well – Describes me very well), part of Qualtrics questionnaire

Number of Questions: 28

Description: The Interpersonal Reactivity Index measures individual differences in empathy. There are four subscales: Perspective taking (tendency to adopt the viewpoint of others), Fantasy (tendency to transpose themselves into the lives of fictitious characters), Empathic concern (“other-oriented” feelings of sympathy and concern), and Personal distress (“self-oriented” feelings of anxiety and unease in tense settings). Each of the four subscales are measured through 7 different items. For this measure, participants rate how well statements describe them (Davis, 1980).

**ISS**

Full Name: Index of Sexual Satisfaction (ISS)

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 7-point Likert scale (None of the time – All of the time), part of Qualtrics Questionnaire

Number of Questions: 25

Description: The Index of Sexual Satisfaction is a scale to measure the degree of satisfaction/dissatisfaction one has in a sexual relationship. Scoring can indicate the degree, severity, or magnitude of a problem in the sexual component of a dyadic relationship. For this measure, participants rate how often they feel the given statements/scenarios occur (Hudson, 1992).

**Joystick Task**

Full Name: Behavioral Joystick Task, Implicit Associations Task?

Visit: Prenatal MRI

Participant(s): B

Type of Data: Behavioral

Number of Questions:

Description: This task is completed after B is out of the MRI. For this task, the father uses the joystick to identify the face as either fear or anger. He uses his right hand to push or pull the joystick to indicate his response. This task takes about 20 minutes to complete.

Location on computer: Desktop-->Stoycos\_MRI-->baby\_stim-->AAJoystick Task augmented

**LAP-R**

Full Name: Life Attitude Profile – Revised Scale (LAP-R)

Visit: (1) Prenatal, (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 7-point Likert scale (Strongly Agree – Strongly Disagree), part of Qualtrics questionnaire

Number of Questions: 16

Description: For this scale, participants rate their level of agreement with different statements regarding their opinions and feelings about themselves and life in general. The LAP-R is a scale that measures meaning in life, a multidimensional concept involving discovered meaning and purpose in life as well as the motivation to find it. The LAP-R has six dimensions: purpose, coherence, choice or responsibleness, death acceptance, existential vacuum, and goal-seeking. There are two composite scores, of which only the first is measured by the HATCH study: Personal Meaning Index (made up of the purpose and coherence dimensions). The LAP-R is made up of 48 items, but the HATCH study only uses 16: the questions making up the Purpose and Coherence dimensions (Erci, 2008; Reker & Peacock, 1981).

**Life Events Checklist**

Full Name: Life Events Checklist (LEC)

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 3-level scale question (Happened to me, witnessed it, or didn’t experience or witness), part of Qualtrics questionnaire

Number of Questions: 15

Description: The Life events checklist is a self-report measure designed to screen for potentially traumatic events in a participant’s life that could potentially result in PTSD or distress. The original version of the LEC has 17 questions, but two questions have been omitted: (1) Sudden, violent death (for example, homicide, suicide) and (2) Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war). The original version of the LEC also has a 5-level scale response while this version only has 3-levels. For this survey, participants note if they personally experienced, witnessed, or did not experience/witness a number of difficult or stressful events at any point in their lifetime.

**Life Experiences**

Full Name: Life Experiences

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 1, yes/no, 1, open-ended, 1, 6-level scale question (Really negative – Really positive), part of Qualtrics Questionnaire

Number of Questions: 3

Description: This short survey aims to determine if the participant experienced any major life event since the prenatal visit, what that experience was, and if it had a positive or negative impact.

**Localizer**

Full Name: Localizer Scans

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: MRI

Number of Questions: N/A

Description: The Localizer scans are the first scans obtained in the MRI. They are a set of three-plane, low resolution, large field of view images that are required for positioning and other parameters for the following, more specialized imaging procedures. This scan takes about two minutes to complete.

**MAI**

Full Name: Maternal Attachment Inventory (MAI)

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 4-level scale questions (Almost Always – Almost Never), part of Qualtrics questionnaire

Number of Questions: 26

Description: For the Maternal Attachment Inventory, participants rate how often they experience given thoughts, feelings, and situations that may be experienced by new parents. This questionnaire is widely used to measure maternal affectionate attachment mother-infant attachment) (Müller, 1994).

**Marital Adjustment Test**

Full Name: Marital Adjustment Test (MAT)

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 1, 7-level scale question (Very unhappy – Perfectly happy), 8, 6-level scale question (Always Agree – Always Disagree), 2, 3-level scale questions, 3, 4-level scale questions, and 2, dichotomous questions, part of Qualtrics questionnaire

Number of Questions: 16

Description: The Marital Adjustment Test measures marital satisfaction. Participants answer question about their present relationship, everything considered, on a variety of different scales. Higher scores indicate higher satisfaction in the marital relationship (Locke & Wallace, 1959).

**Maternal Attachment**

Full Name: Maternal Antenatal Attachment Scale (MAAS)

Visit: (1) Prenatal

Participant(s): A

Type of Data: Survey, 5-level scale questions, part of Qualtrics questionnaire

Number of Questions: 19

Description: Mothers self-report their thoughts, feelings, attitudes, and behaviors about or in relation to their developing baby. Most questions are specified to only include the past two weeks. Their answers are used to determine an attachment score with two subscales: quality of attachment and time spent in attachment mode (or intensity of preoccupation) (Condon, 2015a).

**Maternal Attachment Post**

Full Name: Maternal Postnatal Attachment Scale (MPAS)

Visit: 3 Months Postpartum (online questionnaire)

Participant(s): A

Type of Data: Survey, 1, 3-level scale question, 2, dichotomous questions, 6, 5-level scale questions, and 10, 4-level scale questions, part of Qualtrics questionnaire

Number of Questions: 19

Description: Mothers self-report their thoughts, feelings, attitudes, and behaviors about or in relation to their newborn. Their responses are used to measure an overall postpartum mother-infant attachment score as well as three subscales: Quality of attachment, absence of hostility, and pleasure in interaction (Condon, 2015b).

**MOS Social Support Survey**

Full Name: Medical Outcomes Study (MOS) Social Support Survey

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 5-point Likert Scale (None of the time – All of the time), part of Qualtrics questionnaire

Number of Questions: 19

Description: Participants indicate which types of support and how often those types of support are available to them if they need it. Their responses are used to measure an overall functional social support index along with four social support subscales: Emotional/informational support, tangible support, affectionate support, and positive social interaction. There is also one additional, general item (Sherbourne & Stewart, 1991).

**Mother Interview**

Full Name: Prenatal Mother Interview

Visit: (1) Prenatal

Participant(s): A

Type of Data: Video, coded for positive and negative emotions

Number of Questions: 6 open-ended questions. A newer version with some adjustments, including an additional open-ended question, has been used for the most recent few mothers.

Description: At the end of the visit, either before or after blood draw, A sits in the middle of the couch in front of a camera and answers questions about her pregnancy, the attachment she feels to her child, and how she thinks she and her partner will adjust to parenthood. These questions are meant to elicit an array of emotions. These videos are then cut and coded for emotions to be shown during the Family Video Task to B during his Prenatal MRI visit.

**MPRAGE**

Full Name: MPRAGE, MP-RAGE, MP-GRE, T1-weighted, Magnetization Prepared Rapid Acquisition Gradient Echo

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Structural MRI

Number of Questions: N/A

Description: The MPRAGE is a three-dimensional (3D) structural brain imaging sequence that is very popular in clinical and research settings. It is a gradient echo MRI pulse sequence in which inversion recovery is used for magnetization preparation, to enhance the image contrast. The sequence captures high tissue contrast and provides high spatial resolution with whole brain coverage in a short amount of time. This scan takes about 10 minutes to complete.

**Occupation**

Full Name: Occupation

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 1, 6-level scale question, 1, 4-level scale question, 1, open-ended, part of Qualtrics Questionnaire

Number of Questions: 3

Description: Participants self-report their occupation status, what their occupation is, and their medical insurance status.

**Other Times**

Full Name: Other Times Recorded, Time Data (other than saliva sample start and end times)

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Quantitative

Number of Questions: N/A

Description: During the prenatal visit, RAs note the time the couple arrived in the Lab, the time each participant rinsed out his/her mouth, and the time each participant had his/her blood drawn. During the postpartum visit, in addition to the times already listed, RAs note the time A breastfed C, the time A says she pumped breastmilk (if provided), and the time each participant provides the saliva sample for Genotek.

**Parenting Responsibility Questions**

Full Name: Parenting Responsibility Questions

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 2, 6-level scale questions, 3, 5-level scale questions, part of Qualtrics Questionnaire

Number of Questions: 5

Description: Parents each self-report how much time they spend with their baby on the average weekday and the average weekend day. They then compare the percentage of the time they personally spend taking care of the baby versus the percentage of the time their partner spends taking care of the baby.

**Parenting Stress Index**

Full Name: Parenting Stress Index – Short Form (PSI–SF)

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 33, 5-point Likert scale (Strongly Agree – Strongly Disagree), 3, 5-level scale questions, part of Qualtrics questionnaire

Number of Questions: 36

Description: Participants rate their level of agreement to different statements about their stressors as new parents. This scale was designed specifically for parents of a child ranging from 1 month – 12 years old to identify issues that may lead to problems in the child’s or parent’s behavior. The Short Form is the pared down version of the 120-item PSI. Along with a Total Stress scale (stresses experienced as a parent), the Short Form has 3 subscales: Parental distress (the extent of stress felt in role as a parent), parent-child dysfunctional interaction (the extent to which the parent believes that his/her child does not meet their expectations and their interactions are not satisfying), and difficult child (how easy or difficult the parent perceives the child) (Abidin, 2012).

**Parenting Stress Scale**

Full Name: Parental Stress Scale

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 5-point Likert scale (Strongly Agree – Strongly Disagree), part of Qualtrics questionnaire

Number of Questions: 18

Description: For the Parental Stress Scale, participants rate their level of agreement to statements regarding how their relationship with their child typically is. The purpose of this scale is to assess the stress levels of both the mother and the father. Positive (emotional benefits, personal development, etc.) and negative aspects (demands on resources, restrictions, etc.) of parenting are taken into account (Berry & Jones, 1995).

**PARYC**

Full Name: Parenting Young Children (PARYC)

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 19, 7-point Likert scale (Not at all – Most of the time), 1, 7-level scale question (Really want some changes – Fine as is), part of Qualtrics questionnaire

Number of Questions: 20

Description: For the PARYC, participants self-report the frequency of their parenting behaviors, the perception of those behaviors as problematic, and the degree to which they would like to make changes in specific parenting skills. The measure was designed to address parenting behaviors relevant for the caregivers of young children. There are three subscales: supporting positive behavior, setting limits, and proactive parenting. The scores for each subscale can be summed to create a Total Parent Management Score for each parent (McEachern et al., 2012).

**PAT**

Full Name: Parent Attribution Test (PAT)

Visit: 12 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 7-point Likert scale (Not important at all – Very important), part of Qualtrics questionnaire

Number of Questions: 18

Description: The purpose of the PAT is to assess the perceived causes of caregiving success and failure. There are two parts to the PAT. For the first six questions, participants rate how important factors would be for having a positive experience with a neighbor’s child (potential causes of success). Then, the scenario is switched and participants rate how important other factors would be for having a negative experience with a neighbor’s child (potential causes of failure). The score assesses the perceived balance of power or control within the caregiving relationship (self vs child) (Bugental, 2011).

**Paternal Attachment**

Full Name: Paternal Antenatal Attachment Scale (PAAS)

Visit: (1) Prenatal

Participant(s): B

Type of Data: Survey, 5-level scale questions, part of Qualtrics questionnaire

Number of Questions: 16

Description: Fathers self-report their thoughts, feelings, attitudes, and behaviors about or in relation to their developing baby. Most questions are specified to only include the past two weeks. Their answers are used to determine an attachment score with two subscales: quality of attachment and time spent in attachment mode (or intensity of preoccupation) (Condon, Corkindale, Boyce, & Gamble, 2013).

**Paternal Attachment Post**

Full Name: Paternal Postnatal Attachment Scale (PPAS)

Visit: 3 Months Postpartum (online questionnaire)

Participant(s): B

Type of Data: Survey, 1, dichotomous question, 2, 3-level scale questions, 7, 4-level scale questions, 9, 5-level scale questions, part of Qualtrics questionnaire

Number of Questions: 19

Description: Fathers self-report their thoughts, feelings, attitudes, and behaviors about or in relation to their newborn. Their responses are used to measure an overall postpartum father-infant attachment score as well as three subscales: Patience and tolerance, pleasure in interaction, and affection and pride (Condon, 2015c).

**PBQ**

Full Name: Postpartum Bonding Questionnaire

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 6-point Likert scale (Always – Never), part of Qualtrics questionnaire

Number of Questions: 25

Description: For the PBQ, participants indicate how often statements regarding their baby are true for them in their recent experience. This measure was designed to detect abnormalities and problems of the mother-infant relationship, and can help identify those at high risk of child abuse. The NEST Lab has both mothers and fathers complete this questionnaire. Along with an overall score (general factor), there are three sub-scores: rejection and pathological anger, infant-focused anxiety, and incipient abuse (Brockington, Fraser, & Wilson, 2006).

**Perceived Stress Scale**

Full Name: Perceived Stress Scale – 14 (PSS-14), Perceived Stress Scale (14 items)

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 5-point scale questions (Never – Very Often), part of Qualtrics questionnaire

Number of Questions: 14

Description: For this questionnaire, participants rate how often they had given thoughts or feelings in the last month. The purpose of the PSS-14 is to assess the degree to which participants have perceived situations in the past month as stressful (Cohen, Kamarck, & Mermelstein, 1983). The PSS is a widely used instruments for measuring nonspecific perceived stress, and has been found to predict biological markers or stress, like cortisol levels.

**Placenta**

Full Name: Placenta Sample

Visit: (2) Perinatal

Participant(s): A

Type of Data: Biological

Number of Questions: N/A

Description: At the end of the prenatal visit, participants are given a small cooler to store the placenta after birth until someone from the NEST Lab arrives for the perinatal visit and collects the placenta. After the perinatal visit is complete, the placenta is taken back to SGM 608 for processing. Samples are taken from different areas: Eight cubes, 3cm3, of placenta are cut from central areas, 3 cross sections are taken from the umbilical cord, and one slice is cut out of rolled membrane. These samples are then preserved and shipped for analysis of hormone levels (TBD).

**Postnatal Depression Scale**

Full Name: Edinburgh Postnatal Depression Scale (EPDS)

Visit: 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 4-level scale questions, part of Qualtrics questionnaire

Number of Questions: 9

Description: For the Edinburgh Postnatal Depression Scale, participants indicate how often in the past 7 days they have felt a given way. One question was omitted: “The thought of harming myself has occurred to me.” The EPDS was developed to identify mothers at risk for postpartum depression (Cox, Holden, & Sagocsky, 1987).

**PPI-R**

Full Name: Psychopathic Personality Inventory – Revised (PPI-R)

Visit: Prenatal MRI

Participant(s): B

Type of Data: Survey, 4-level scale questions (False – True), a Qualtrics questionnaire

Number of Questions: 154

Description: After B is out of the MRI machine, he completes this questionnaire and two behavioral tasks. For the Psychopathic Personality Inventory – Revised, the participant rates how true or false statements about their personality traits are. The PPI-R is a personality test for traits associated with psychopathy in adults. The original PPI had 8 factors: Machiavellian Egocentricity, social potency, cold-heartedness, carefree non-planfulness, fearlessness, blame externalization, impulse nonconformity, and stress immunity (Lilienfeld & Andrews, 1996). But the revised version reorganized these factors into 2 subscales: Fearless Dominance and Self-Centered Impulsivity. Having the participants complete the PPI-R is especially important for the MRI visit because higher levels of psychopathic traits have been associated with atypical neural activity and lower activity in affect-processing brain areas to emotional stimuli (Seara-Cardoso & Viding, 2015).

**Pregnancy and Demographic Questions Addition**

Full Name: Pregnancy and Demographic Questions Addition, Additional Questions Prenatal

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 1, open-ended question, 1, 3-level scale question, 2, yes/no questions, and 3, 6-level scale questions, part of Qualtrics questionnaire

Number of Questions: 7

Description: At the end of the prenatal Qualtrics questionnaire, seven additional questions were added. These questions are about where the participant was born, what their annual household income is, if the pregnancy was planned, if their employer offers paid leave, and how long they plan to take off work after the birth.

**Pregnancy Interview**

Full Name: Pregnancy Interview

Visit: (1) Prenatal

Participant(s): A

Type of Data: Dictated survey, on-paper, filled-out by RA

Number of Questions: 9

Description: This structured interview/survey is given orally at the beginning of the prenatal visit and the RA fills in the answers the couple provides for each question. The brief interview aims to better understand the length of the couple’s relationship, logistical basics about their birth plan, and any prior complications associated with the pregnancy or getting pregnant.

**Pregnancy-Specific Anxiety Measure**

Full Name: Pregnancy-Specific Anxiety Measure

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 13, 5-point Likert scale (Never – Always), 6, 4-level scale questions (Not at all – Very much), 7, 4-level scale questions (Never – A lot of the time), part of Qualtrics questionnaire

Number of Questions: 26

Description: This Pregnancy Specific Anxiety Measure is made up of two separate measures. The first 13 questions are a Measure of Pregnancy-Specific Anxiety. Participants rate how often they have felt a given way in the past week. The four adjectives related to anxiety – anxious, panicky, concerned, and afraid – are embedded within other adjectives. Only these four adjectives are used to calculate the anxiety score (Schetter, n.d.). The second 13 questions make up the Pregnancy-Related Anxiety Scale. For this scale, participants rate how much they feel given feelings and expectations about the birth of their baby, and then they rate how often they are concerned with problems about pregnancy, the birth, and their baby. The Pregnancy-Related Anxiety Scale is made up of 10 questions (Guardino & Schetter, 2014). The HATCH study uses a modified version of this scale, which has 3 additional questions.

**Pregnancy Symptoms**

Full Name: Pregnancy Symptoms Inventory

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 44, yes/no, 44, 10-level scale questions [Not at all severe – (2 levels above) Extremely severe], 44, 3-level scale questions (1 day or less – 14-28 days), part of Qualtrics questionnaire

Number of Questions: 132

Description: For this questionnaire, participants self-report the existence and severity of pregnancy-related health problems. There are 44 given symptoms, and there are three parts to each question. The first part is whether or not the participant experienced these symptoms in the last 3 months. If the answer is yes, then the participant indicates how severely and then how often these symptoms were felt.

**PSQI**

Full Name: Pittsburgh Sleep Quality Index (PSQI)

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 4, open-ended questions, 14, 4-level scale questions, part of Qualtrics questionnaire

Number of Questions: 18

Description: For the PSQI, participants self-report information about their sleep quality over the past month. There is a global PSQI score as well as 7 sub components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. The questions where the participant asks their bedmate to answer was omitted (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989).

**Qualtrics Questionnaire**

Full Name: Qualtrics Questionnaire

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey

Number of Questions: Varies

Description: During the prenatal and postpartum points of contact, the couple completes a different version of an online questionnaire. The NEST Lab uses the online program, Qualtrics, to administer these surveys. The number of questions and amount of time to complete the surveys varies, but typically take about an hour.

**Radiology Scan**

Full Name: Radiology MRI Scan

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: Structural MRI

Number of Questions: N/A

Description: This scan is a structural MRI which is sent to a USC radiologist for incidental findings. The HATCH study does not use this for any analyses. This scan takes about two minutes.

**Resting State**

Full Name: Resting State fMRI, rsfMRI, R-fMRI

Visit: Prenatal MRI and Postpartum MRI

Participant(s): B

Type of Data: fMRI

Number of Questions: N/A

Description: The resting state scan is the first fMRI during the MRI visits, occurring after a few structural MRIs. For the resting state scan, B looks at a white cross in the middle of a black screen for approximately seven minutes and is asked not to fall asleep. The resting state scan is important for evaluating regional interactions that occur when the participant is not performing a specific task. These resting state fMRI scans from the prenatal and postpartum MRI visits will (most likely) be compared (TBD).

**Risky Families**

Full Name: Risky Families Questionnaire

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 5-point Likert scale (Not at all – Very often), part of Qualtrics questionnaire

Number of Questions: 11

Description: The Risky Families Questionnaire, a well-validated retrospective self-report scale, asks participants questions about their family life during childhood and early adolescence (ages 5 – 15). This questionnaire was designed to assess the degree of risk of physical, mental, and emotional distress that participants faced in their homes in childhood and adolescence. Harsh early family environments are related to mental and physical health in adulthood. A few questions in the Qualtrics questionnaire are worded differently and two questions were omitted: “how often would you say there was quarreling, arguing, or shouting between a parent and you?” and “How often would you say there was quarreling, arguing, or shouting between your sibling(s) and you?” (Felitti et al., 1998).

**Saliva**

Full Name: Saliva Samples

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Biological

Number of Questions: N/A

Description: During the prenatal and postpartum visits, both A and B provide six, 1mL samples of saliva. To provide the sample, participants are given 5 minutes to passively drool down a little straw until the collection tube fills halfway. These samples are collected at about 20 minute intervals (exact intervals can be found in each protocol) and the exact start and finish times are recorded by RAs. These saliva samples are analyzed to measure hormone levels (cortisol and testosterone).

**Saliva Questionnaire**

Full Name: Saliva Questionnaire

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, on paper

Number of Questions: 40

Description: A two-page questionnaire that both A and B fill out in the beginning of each lab visit, prenatal and postpartum. The purpose of this questionnaire is to note any abnormalities that may be associated with the saliva samples. For specifics about each question and old versions of the questionnaire, please see: Mac Desktop > RA Manuals > Saliva Questionnaire Guideline.

**SCL90**

Full Name: Symptoms Checklist – 90 – Revised (SCL90-R)

Visit: (1) Prenatal, 3 Months Postpartum (online questionnaire), (3) 6 Months Postpartum, and 12 Months Postpartum (online questionnaire)

Participant(s): A and B

Type of Data: Survey, 5-point Likert scale (Not at all – Extremely), part of Qualtrics Questionnaire

Number of Questions: 87

Description: For the SCL90-R, participants self-report how much discomfort given problems have caused them over the past week. Three questions were omitted because they were related to suicide and the HATCH study does not have an intervention plan: “Thoughts of ending your life,” “thoughts of death or dying,” and “having urges to beat, injure, or harm someone.” This Symptoms Checklist was designed to evaluate a broad range of psychological problems. It has nine symptom dimensions (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism), an “Additional Items” category, and three different global scores (Global Severity Index, the Positive Symptom Distress Index, and the Positive Symptom Total) (Derogatis & Unger, 2010).

**Skin Conductance**

Full Name: Galvanic Skin Response (GSR), Skin Conductance, Electro-dermal Activity (EDA)

Visit: Prenatal MRI

Participant(s): B

Type of Data: Physiological

Number of Questions: N/A

Description: Electro-dermal activity is the property of the human body that causes continuous variation in the electrical characteristics of the skin. Skin conductance is modulated autonomously by the sympathetic nervous system. Although recent research suggests skin conductance is more complex, traditionally, it was believed that skin conductance varies along with the state of the sweat glands in the skin, which are controlled by the sympathetic nervous system. As arousal increases so does sweat gland activity and, in turn, so does skin conductance. Thus, skin conductance can be a measure of emotional and sympathetic responses. Before the father begins training for the tasks in the MRI, two electrodes are attached to his left palm. Once he is in the MRI, these electrodes are connected to Biopac, which is then able to record his GSR. GSR is collected for the duration of the MRI, but data is used in association with the four tasks B participates in while in the MRI (Family Video, Why How, Faces, and Cry Sounds tasks).

**STAI**

Full Name: The State-Trait Anxiety Inventory (STAI), State-Trait Anxiety Inventory for Adults (STAI-AD)

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, 4-level scale questions, 20 (Not at all – Very much so), and 20 (Almost never – Almost always), part of Qualtrics Questionnaire

Number of Questions: 40

Description: Participants are asked to rate how they feel at the moment (their present feelings) and then how they generally feel (their general feelings). The STAI is an introspective inventory where participants self-report anxiety affect. It is a commonly used measure of trait and state anxiety (Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983).

**Stool Sample**

Full Name: Stool Sample

Visit: (2) Perinatal and (3) 6 Months Postpartum

Participant(s): C

Type of Data: Biological

Number of Questions: N/A

Description: During the perinatal visit, the HATCH study collects the baby’s first feces. During the postpartum visit, the HATCH study collects another poopy diaper. To analyze the infant’s microbiome, one pea-sized scoop is collected, preserved, and shipped for analysis.

**Trait Rating Task**

Full Name: Trait-Rating Task

Visit: (1) Prenatal

Participant(s): B

Type of Data: Survey, on paper, 10-level scale questions (Not at All to Extremely-Well

Number of Questions: 9

Description: After participants complete the handgrip task, they listen to the cry sound for 30 seconds and then complete 2 surveys, including the Trait-Rating Task. For this survey, participants rate how well a list of adjectives describe the infant they just heard in the sound clip. The purpose of this survey is to understand how the participant is interpreting the cry sound.

**Who Does What and Reverse Prompt Discussion**

Full Name: Who Does What? and Reverse Prompt Discussion Prenatal

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Video with audio, transcription, and some scoring

Number of Questions: 12

Description: A and B are given 5 minutes to thoroughly discuss and together decide how they expect to divide responsibilities related to caring for their baby on the “Who Does What” paper questionnaire. After the five minutes, they are prompted to flip the page over and discuss, for another 5 minutes, how they would handle and resolve two given situations involving them and their newborn. These ten minutes are recorded on video and later transcribed by an RA.

**Who Does What Discussion (Actual)**

Full Name: Who Does What? Discussion Postpartum

Visit: (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Video with audio, transcription, and some scoring

Number of Questions: 10

Description: A and B are given 5 minutes to thoroughly discuss and together decide how to rate how they actually divide responsibilities related to caring for their baby on the “Who Does What” paper questionnaire. These five minutes are recorded on video and later transcribed by an RA.

**Who Does What Questionnaire**

Full Name: Who Does What? Questionnaire Prenatal with Reverse Prompts, Who Does What? Questionnaire Postpartum

Visit: (1) Prenatal and (3) 6 Months Postpartum

Participant(s): A and B

Type of Data: Survey, on paper, 7-level scale questions (Mother only– | – | – Even split – | – | – Father only), Prenatal also has two open ended prompts on the back for additional discussion.

Number of Questions: Prenatal: 12, Postpartum: 10

Description: A questionnaire consisting of 10 topics of which participants discuss and together decide, on a scale of 1 – 7, how to divide responsibilities related to caring for their baby. The scale is from mother only (1) to father only (7). Participants complete this questionnaire at both the prenatal (expectations) and postpartum (actual) visits. The prenatal version asks, “How do you expect to divide responsibilities…,” while the postpartum version asks, “How do you actually divide responsibilities…” They have 5 minutes to complete this questionnaire. The prenatal version also has two open ended questions on the reverse side of the page that the couple discusses for another 5 minutes. These questions ask the couple to imagine two situations, involving them and their newborn, and resolve the issue.

**Why How Task**

Full Name: Why How Task, Why-How Localizer

Visit: Prenatal MRI

Participant(s): B

Type of Data: Button box numerical response, neurological (fMRI), and physiological [Galvanic Skin Response (GSR)/skin conductance and pulse]

Number of Questions: 16 questions are posed, each followed by a set of 8 images

Description: The Why How task is the second task B completes in the MRI. Before this task begins, an RA removes the third and fourth buttons from the button box leaving only buttons 1 and 2. During this task, B is asked different yes/no questions that are each followed by a series of photographs in which B must answer yes or no about them using the button box (1 = yes, 2 = no). This task runs at a very fast pace. The task lasts 6 minutes and 36 seconds.

**WIAF**

Full Name: What is a Father Questionnaire (WIAF)

Visit: (1) Prenatal

Participant(s): A and B

Type of Data: Survey, 5-level scale questions (Strongly Agree – Strongly Disagree), part of Qualtrics Questionnaire

Number of Questions: 15

Description: Participants answer questions on how strongly they agree or disagree with statements concerning fathers and fathering. These statements range from very traditional roles to nontraditional roles. The WIAF is a measure adapted from the 1984 Role of the Father Questionnaire” (Schoppe, 2001).

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