Indicator of Parent-Child Interaction (IPCI)

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Introduction

Why Another Measure for Assessing Parent-Child Interaction?
Parent-child interaction is the earliest and most consistent mechanism for promoting positive social-emotional behavior in very young children. While infant mental health theory, evidence-based practices for supporting positive behavior in preschool-aged children, and routines-based intervention in early childhood all emphasize the importance of parent-child interaction in promoting children's early social-emotional behavior, assessment models and measures have not kept pace with the demands for efficiently screening at-risk parent-child interactions and monitoring interaction changes expected with intervention. Rather, we currently lack easy-to-use parent-child interaction measures, with established norms, which assess parent, child, and dyadic behavior. Furthermore, because the majority of parent-child interaction measures have been developed for laboratory settings or for use by highly trained clinicians, we lack measures with well-established and efficient training procedures that enable individuals with various levels of educational training from various disciplines to quickly and reliably administer measures of parent-child interaction.

To advance effective practice for supporting early parent-child interaction and young children's early social-emotional development, specific characteristics of parent-child interaction measures are needed. That is, to be useful for practitioners providing early intervention services, measures need to meet the following criteria:

- They need to focus on key parent and child behaviors that signal or indicate quality of parent-child interaction and that are predictive of social-emotional outcomes in young children
- They need to focus on behaviors that occur in the context of natural settings where parents/caregivers and children typically interact without the requirement of videotaping
- They need to be easy to administer for individuals across multiple disciplines with various levels of training (e.g., Part C early intervention teachers, social workers, and nurses).
- They need to be suitable for quick and frequently repeated administration

What is the Indicator of Parent-Child Interaction (IPCI)
The IPCI is a measure of parent-child interaction that is being developed to address current assessment gaps and meet present demands described above. It is currently being field-tested and refined to serve as an easy-to-use indicator of parent-child interaction, which can assist practitioners (e.g., early childhood intervention teachers, Early Head Start advocates, social workers, family support paraprofessionals, and nurses) in identifying at-risk parent-child interaction. It is also being developed to serve as a process-outcome measure of intervention focused on improving parent-child interaction and/or early social and emotional outcomes in very young children. Such measures are especially important in light of the growing demand for demonstrating effectiveness of early intervention services.
I PCI Indicator Protocol

The Indicator of Parent-Child Interaction is to be completed following each of a series of brief interaction episodes between a parent (or other primary caregiver) and their young child at home during a 10-minute observation period. For children who are older than 1 year, activities include (1) free play, (2) book-reading, (3) a frustration/distraction task, and (4) a routine dressing task. For children who are 1 year-old or younger, activities are the same as for older children excluding the frustration/distraction task. Prior to the home visit at which the observation is conducted, parents are provided information about the purpose of the observation and are informed about the types of activities that will be observed. At the time of the home visit, rapport is established with the parent and information that was shared initially is reviewed and discussed further.

Materials Kit

Blanket
Set of keys and recorder
Books
4 IPCI Rating sheets (1 for each activity)
Camcorder, Tripod, and videotape
Timer

Interaction Activities

*Times are noted for the assessor only. Do not tell parents the time limits.

Free Play (4 Min): Parents are told: “Let’s get started by spending a few minutes with you and your child doing something together that you enjoy. This activity should be something that you and your child are both comfortable with and used to and something that your child loves to do. Sometimes parents talk or play games without toys, sometimes parents just sit with their children, and sometimes children like to play with a favorite toy. Whatever you and ______ normally do that makes ______ smile, laugh, or have fun is what we are most interested in. You don’t have to sit in one place, but I’ll need to know what room you’d like to stay in together so that I can go with you to that room.”

Book Reading (2 Min): Parents are told “During the next few minutes, you and your child can spend a few minutes with these books. However you want to use the books with your child is fine. Feel free to attend to whatever needs your child might have during this time.”

Distraction Task (2 Min): A blanket is placed on the floor and parents are told “Sometimes there are materials around the house that are either dangerous (like electrical outlets) or that may not necessarily be unsafe for children but that are important for children not to play with because they are breakable or otherwise not appropriate for a young child. For a few minutes, we would like for you to keep ______ on this blanket and not allow him or her to get this recorder. The assessor turns on the recorder and places it in front of and within the reach of the child, reminding the parent to keep the child on the blanket and away from the keys. Every 30 seconds, the assessor activates the keys with the key locator. It is fine for the parent to engage the child with any materials so long as the parent initiates the materials. Do not make any suggestions or give the parent alternate materials with which to engage the child.

Dressing (2 Min): Parents are told that “We would like to spend a few minutes seeing what it’s like to get ______ dressed in the morning with whatever clothes and/or changing routine you use. So, however you two normally get this job done is what we are most interested in.” Parents may change a diaper, simply remove and replace the same clothing or dress the child in another set of clothes.
Talking with Parents
Specific guidelines for assessors to use in preparing parents for the observed activities and engaging with parents throughout the visit are provided in the IPCI: Steps for Preparing Parent (reverse side).
IPCI: Steps for Preparing Parents

Telephone Introduction
The ways in which young children interact with their parents can be very different for individual children. There are also many different types of activities that young children do with their parents such as eating, bathing, dressing, and playing. To better understand how young children relate to their parents at home, we would like to visit you in your home. The visit will last about 30 minutes. During this time we would like to spend about ten minutes observing how your child interacts with you during some different activities. At the time of the visit we will talk with you again about each activity and answer any questions that you might have so that you will know just what to expect. We are most interested the following activities:
1. Whatever you and your child enjoy doing together
2. Looking at books
3. Seeing how your child handles frustration (if he/she is over 1 year old)
4. Dressing (putting on shoes, socks, and shirt)

Getting Ready for the visit: There are a few things that you can do to help the visit go smoothly and to prepare your child for the visit.

Preparing your Child: You can help your child to be ready for the visit by making sure that he or she has eaten recently and is rested. Please feel free to help your child feel as comfortable as possible. If your child gets fussy, please feel free to do whatever you would normally do to help your child feel comfortable.

Letting others know that You will be Busy: It will help the visit go more smoothly if you let family and friends know that you will be busy during the time of the visit. It is best to schedule a visit at a time when you think you won’t be interrupted by visitors or phone calls.

Things to have on hand: While it’s not necessary for you to have materials or toys available, if there are any things that you and your child especially enjoy doing together, it would be good to have any such materials out and ready. For the dressing activity, you may either take off and replace your child’s shoes, socks, and shirt or if you wish to put on another set of clothes, it would be good to have these ready at the time of the visit.

Tips for Assessors in Introducing Activities and Making Transitions During the Visit
- Do not tell parents the time limit for each activity. It is important that the parent does not feel rushed, but that the assessor manages time well and helps the parent transition smoothly from one activity to the next. [As soon as the timer rings, create a break by walking slowly toward the parent and child commenting on the activity just completed, orienting parent to the next activity (e.g., use previewing—Let’s see if _____ is ready to look at a book), and introducing the activity].
- Spend a few minutes (e.g., 5-10) at the beginning of the visit to establish rapport with the parent and help the parent to feel at ease. Review information discussed on the phone and answer any questions.
- Before each activity, introduce the activity by using the Protocol Script provided on the reverse page.
- As soon as the parent initiates the designated activity, set the timer for the allotted time (e.g., Free Play- 4 minutes; Book Reading- 2 minutes; Frustration Task- 2 minutes; and Dressing- 2 minutes). If you are videotaping, stop the videotape at the designated time points and rate each activity.
- Be sure to end the visit on a positive note. If the activities were difficult for the parent and child and they appeared uncomfortable, acknowledge feelings (e.g., I’m sorry that wasn’t much fun for you guys today). Comment on one positive thing the parent and child were able to do and thank them.
Definitions

I. Caregiver Positive Support

1. Parent conveys acceptance through positive comments, gentle affectionate touch, and/or smiling. Simply holding or touching a child in the context of a general routine does not necessarily convey acceptance and therefore would not be an example of this item. Watch for clear signals of acceptance. If a parent gives a verbal and nonverbal message simultaneously, these messages should match and be positive to be an example of this item (e.g., a positive comment with especially flat or negative affect or negative voice tone, or a negative comment in a positive voice tone are NOT examples of conveying acceptance).

2. Parent uses descriptive language, imitates child’s vocalizations. For example, the parent describes activities, objects and/or child’s behavior or feelings. For young infants, a parent imitates baby’s sounds or describes events to a child. This item does Not refer to negative descriptive statements about the child or child’s behavior (e.g., “That’s mean, Don’t be a bad boy, You’re going to hurt yourself”, etc.). Brief verbal statements to a child that are non-descriptive do not count. When parents are asked to engage in book reading, this item should be rated based on the parent’s use of descriptive language and imitation or expanding on child’s vocalizations. For the book-showing activity only, simply reading, without any other descriptive comments to the child, is NOT an example of descriptive language.

3. Parent follows child lead in shared activities. Parent may introduce activity and make suggestions, but parent follows child’s lead through attending, imitating, joining, turn-taking, and/or commenting appropriately on child’s interest. However, the parent does not interrupt the child or redirect child’s behavior. Parent may use gestures, words, or actions, consistent with child’s focus, which slightly extend child’s verbal or nonverbal behavior. Following a child’s lead can occur in the context of routines in which a parent may be taking a more active role than in play. For example, a parent who notices and comments on the child’s focus and what is happening can be an indicator that the parent is following the child’s lead. However, this must be done in a non-intrusive manner to be exemplary of this item.

4. Parent introduces voice or materials in novel/interesting ways to maintain or extend child’s interest rather than interrupting child’s focus or not engaging child. The parent makes sounds, uses animated voice tone and/or facial expressions, and/or physical demonstration to recruit, maintain, or extend child’s interest. The key to identifying the presence of this behavior is that it must be interesting and non-disruptive to the child. Developmental appropriateness of the parent’s behavior must be considered when rating this item. In order to rate this item as present, the behavior described herein must be novel or interesting and it must be developmentally appropriate (i.e., attempts to stimulate development that are far beyond the child’s development level are Not included here). Keep in mind for this item that what may be novel or interesting the first time it is introduced, may not continue to be novel/interesting when repeated.
5. If a child shows frustration or distress, does the parent respond appropriately through the following strategies?
   
   (a) If the child shows distress/crying, does the parent use soothing behaviors that include providing a pacifier, cradling, rocking. With an older child, parent behaviors would include gentle touch, words acknowledging child's feelings, and words of comfort/support. If the child does not exhibit any distress for the parent to respond to, No Opportunity should be checked.

   (b) If the child shows frustration/aversion cues does the parent respond by providing one of the following strategies: slowing pace, using softer voice, providing a brief pause in interaction, or with older infants use appropriate distractions? Early signs of distress include gaze aversion (turning face or eyes away from when a parent is trying to get child to look at her face or a toy), increased activity level, rapid breathing, and fussy sounds. Watch for parent to respond immediately to these signals by slowing pace, using a softer voice, becoming quiet. With older infants/children, parents may use distraction appropriately (e.g., helping child become interested in another activity). Simply introducing new toys or materials to a young infant (under 6 months) who is showing aversion or distress cues is not an example of appropriate distraction. Similarly, after attempting to introduce a new activity once or twice with an older infant or young child, unless the parent uses another strategy listed herein, repeating this behavior is not an example of appropriate distraction.

   ** If the child does not show any aversion/frustration cues or distress, then No Opportunity should be checked. If the child shows aversion/frustration cues but not overt distress such as crying, then rate this item based on the parent's response to aversion/frustration cues. Follow the same principle if the child shows overt distress, but not earlier signals of aversion/frustration. If the child shows both aversion/frustration cues as well as distress and the parent engages in appropriate strategies to one of these (e.g., distress/crying) but not the other (e.g., aversion/frustration cues) and the child provided an opportunity for the parent to respond, this item should be rated less than 4.

II. Caregiver Interruption

[**Consider both frequency as well as severity when rating Intrusive/Rejecting Behaviors. If there is a conflict between frequency and severity, use severity to rate the item (e.g., single episodes of a parent calling a child a name, using a derogatory label, or making emotional threats (e.g., I'm going to leave you; I don't want you anymore), or using anything more than the most mild physical force should automatically be coded as severe.

5. Parent uses a harsh tone of voice and/or makes critical or rejecting statements. Remember, for this item, a single critical statement could be scored a 4 if it is severe (e.g., calling the child a name or belittling the child). To score a 1, the statement must be mild.

6. Parent Uses restrictions/intrusions (e.g., Restrictions include statements such as “No, Don't, Stop, Quit”. They also include vague warnings such as “Watch out”, “Be careful”. Intrusions include taking things away, unnecessarily controlling child’s movement, using physical discipline, or pushing objects in front of a child’s face. Remember, this item should be scored a 3 if only 1 restriction is observed but it is severe (e.g., slapping a child's hand, yanking a child away from a toy)
7. Parent shows disapproval/rejection in response to a child’s attempts to get parent’s attention. This item also includes words or gestures that the parent uses to explicitly convey that the child is not to interrupt parent or seek parent’s attention or physical support (e.g., motioning the child away, saying “Not now” or “I don’t want to play with you”, pulling away from a child who is seeking a hug, or blatantly ignoring a child’s request for help or attention). Remember to consider severity not simply frequency. One severe rejection would be scored a 3. If the child does not seek the parent’s attention or approval through gaze, vocalization, comment, soft touch, approach, or smile (hence providing No Opportunity for the parent to respond), No Opportunity should be checked.

III. Child Positive Engagement

1. Child provides positive feedback to parent through positive social signals such as appropriate smiling or laughing, eye contact, vocalizing, words, or gentle touch. For infants under 6 months, this can include simply engaging in joint visual attention. This item does not reflect a child passively looking at a parent who is not engaged with the child. In cases where the child has no opportunity to provide positive feedback to the parent because the parent is physically unavailable (out of range), then No Opportunity should be checked.

2. Child engages in sustained activity. Consider both social and non-social engagement with toys or materials. For older infants and young children, the child must be actively engaged (e.g., looking at/turning pages of a book, manipulating objects, etc.). This item does not include an older infant or child sitting and passively watching others interact. However, for very young infants, this item does include sustained visual attention to toys, materials, or face. Simply looking around a room is not an example of this item. In cases where a very young child has no opportunity to engage in sustained independent activities because a parent is unavailable to the child, No Opportunity should be checked. Do not check No Opportunity for a mobile child.

3. When and if the parent attempts to engage the child or requests action, the child follows through by vocalizing, gesturing, attempting task, or for very young infants, focusing on the parent’s face and/or object being shown. This item gets at the extent to which the child follows through and responds to a parent’s attempt to engage the child. For young infants this may involve vocalizing and/or focusing on the parent’s face and/or an object that the parent is attempting to show the child. For a toddler, it may involve following through with a parent’s request for engagement and/or compliance.

IV. Child Distress/Reactivity

1. Child is overwhelmed by negative affect. Child’s signals may shift rapidly to whimpering, fussing or crying with little warning. Brief, mild fussing in response to an observable stressor is NOT an
example of this item. However, if the child becomes overwhelmed by emotion, even if it is due to a clear environmental cue, this should be reflected in the scoring. Consider how the child recovers from stressors. Uncontrollable or inconsolable crying are examples of this item. Difficulty calming after a stressor is also an example of this item.

2. **Child engages in non-compliance, tantrum, or aggressive behavior (hitting, biting, kicking, throwing objects, spitting, head-banging, screaming, verbal or nonverbal social rejection, name-calling, derogatory language, or threats).** For infants, non-compliance is not considered externalizing behavior. Therefore, to rate the presence of externalizing behavior for infants the behavior must be destructive. This item does not include a child who simply, turns eyes and/or head away from interaction or fails to follow parent instruction without other signals.

3. **Child startles, flinches, pulls away from the parent or engages in frozen, watchful behavior without joining in interaction.** A child who is simply not engaged in an activity or whose attention shifts to another activity other than what the parent may want the child to focus on is not an example of this item. Watch for behaviors such as flinching, pulling away, frozen/watchful gaze. The behavior should give a clear impression of fear, uncertainty, or avoidance. Even 1 instance of such a clear impression would be scored as 3 for severe. Remember this item is scored according to frequency OR severity.