Behavioural Observation Coding System

FOS-V

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Introduction

This manual describes a coding system, the Family Observation System (FO5) that is used for quantifying parent-child interaction, parenting skills and deficits, and child behavior problems in children from 1 to approximately 8 years of age. The system is derived from the original work of Gerald Patterson, John Reid and colleagues at the Oregon Social Learning Center in the 1970s. Their original observation system was modified for use with young oppositional children at the Behavior Research and Therapy Center under the direction of Matthew Sanders and Mark Dadds.

Over the years, the system has been modified to 1) reduce the number of codes to bare essentials, and 2) introduce categories that reflect the behavior problems of anxious, depressed and withdrawn children (e.g. withdraw, complain, affect codes) as well as the traditional focus on oppositional behaviors.

The schedule involves a number of steps:

1) Scheduling Family Interaction Tasks
The parents and children who are to be observed need to be guided through appropriate activities that will elicit the types of behavior the researcher or clinician is interested in.

In the home, a number of activities are naturally associated with escalations in parent-child viz. getting ready to go out, mealtimes, bedtime. Usually, families are left to interact as freely as possible within the following constraints:

- turn off the television;
- avoid visitors, telephone calls;
- try to stay in the main area (lounge/dining room).

Activities that have been used most often in clinical settings include:

Free play I - make available age-appropriate toys and ask the parent to play freely with the child (5 minutes).

Say: "Now I would like you to just play freely with your child. These toys are for her use. Please try to keep your child in this area, otherwise, just relax and be as natural as you can. In about 5 minutes, another friend will be coming in to join the play".

Free play II - after 5 minutes of free play, a stranger should enter the play area and attempt to join in with the child's play. We routinely employ a young female adult for this. The "stranger" should enter the play area, introduce herself to the mother, then directly to the child.

Say: "Hi, my name is ------. What is your name?..... I am here to play with you for a few minutes. Can you please show me what game we are playing?"

The "stranger" should try to engage the child in a supportive, non-intrusive way for up to 5 minutes, using a running commentary (reflection, paraphrasing) of the child's activities and speech.

Structured task - ask the parent to supervise the child while he or she attempts to complete an age-appropriate task that is fun and not too demanding e.g. a jigsaw puzzle (5 minutes).

Say: "Here is a jigsaw puzzle (choose age appropriate toy). Can you please help your child to try to complete it as best she can. I will stop you in about 5 minutes".

Separating and reuniting - ask the parent to explain to the child that she has to step outside briefly and will return in 1 minute. The parent should then attempt to leave the room. If the child becomes upset beyond what the parent is comfortable with, the separation should cease. Otherwise, the parent should return to the child after 1 minute.

Say: "That was great; you did a really good job with that jigsaw puzzle. Mrs (or Mr) ------ ---, I need you to step outside with me for 1 minute. Can you please explain that you will be outside with me for just 1 minute and then you will return."
If separation is successful, congratulate the parent on how well she did and return after 1 minute.

Clean up - ask the parent to supervise the child while he or she cleans up the toys in the room (5 minutes).
Mealtime - observations can be scheduled at regular mealtimes and either food provided or the parent asked to bring a meal and supervise the child's usual eating routine (15 minutes).

2) Recording the raw data

Interactions can be videotaped or recorded live depending on the category system to be used. Time sample intervals can be recorded live or from videotape, but event records that record the occurrence of every behavior in sequence can only be recorded from videotapes. Approximately one third of all observations should be scored by two observers who cannot see each other's scoring. Inter-rater reliabilities should be calculated using agreements on occurrences and non-occurrences, adjusted for chance levels (kappa).

3) Categorizing the data

The following describes a time sampling procedure. Event records are too complex for this manual and those intending to use these should consult other sources.

For live recording, the observer(s) are provided with a tape recorder that cues them, via an ear plug, when to observe and when to record. The cycle repeats for the entire observation: 20 seconds of observing followed by 10 seconds for recording. During the 10 seconds, the observer writes down each behavior, and its corresponding affect code, that occurred during the previous 20 seconds of observation. Only the first instance of each behavior is recorded. Subsequent occurrences within the same interval are ignored unless they occur with different affect.

Example

In a 20-second observe interval, the following parent-child interaction occurs.

Child - plays with blocks [neutral affect].

Mother - "Don't bang those together" [neutral affect].

Child - looks at mother, laughs and bangs blocks more loudly [happy affect].

Mother - "Johnny!" [angrily].

Child - keeps playing [happily].
The child - is scored for one behavior only: Noncompliance (NC) and the affect is rated H (happy). The play isn't scored because appropriate child behavior is scored only if it lasts for the whole interval (that is, no misbehavior occurs).

The parent - is scored for 2 behaviors: Instruction (I) with affect rated N (neutral) and Instruction (I) with affect rated A (angry).

**SUMMARY OF BEHAVIOR CODES**

**Child Behavior**

1) Non-Compliance (N.C.) - refusal to obey specific parental instructions for a lapse of 5 seconds after instructions.

2) Complaint (C.P.) - any instance of whining, crying, screaming, shouting, grizzling, intelligible vocal protests or displays of temper (e.g. temper tantrum).

3) Demand (D) - any command by the child that is judged to be aversive or unpleasant because of the content of the instruction, the voice quality of the speaker.

4) Physical Negative (P.N.) - any actual or threatened physical attack on another person or object.

5) Oppositional (O) - inappropriate child behaviors that cannot be categorized readily into any other deviant behavior category.

6) Withdraw (W) - any behavior that is not directed toward another person or task; the child has withdrawn into him or herself and is not engaged in any task or social interaction; any repetitive, non-goal directed behavior.

7) Appropriate (A) - Interval in which none of the other (negative) categories are scored.

**Parent Behavior**

1) Praise (P) - descriptive praise comment directed to the child.

2) Contact (C) - parent caresses or touches the child in a friendly, affectionate or non-aversive manner.

3) Aversive Contact (C-) - parent makes physical contact with the child in a way that could cause pain or discomfort to the child.

4) Question (Q) - parent makes a specific request for information from the child.

5) Instructions (I) - all types of instructions that are delivered to the child.
6) Social Attention (S) - any verbal or non-verbal attention to the child that cannot be scored under other categories.

7) Criticize (CR) - any behavior or statement that judges either self or the child or others in a negative way.

8) (Threat of) Punishment (TP) - loss (or threat of) some object or activity, or the institution of some aversive (negative) condition due to child either engaging or not engaging in a given behavior.

CATEGORIES OF CHILD BEHAVIOR

1) Non-Compliance (NC)

Definition: This category is scored for non-compliance with or refusal to obey specific parental instructions for a lapse of 5 seconds after instructions. It is scored for each interval of non-compliance with an instruction for 3 consecutive intervals given by an adult and is scored for each subsequent interval until either a new instruction is given or the setting changes. Some instructions may be interpreted by the observer as restating or temporarily imposing rules. Often these are instructions not to do things. In this case any instance of non-compliance is scored N.C. ("don't pound the clay on the table"). A setting change is any event that effectively nullifies the instruction. If the parent picked up the game - as soon as it is cleared away it becomes impossible for the child to comply or non-comply, and scoring with respect to that instruction is terminated.

Examples: - subject continues to light matches after he has been told not to (temporary rule broken).

- subject ignores her mother's command to stop playing and come to dinner.

- subject keeps pounding the clay on the table after being told by his mother to stop.

2) Complaint (CP)

Definition: This category is scored for any instance of whining, crying, screaming, shouting, grizzling, intelligible vocal protests or displays of temper (e.g. temper tantrum). It excludes demands (D) that involve the child giving a direct instruction to another person (see below for definition).

These behaviors may also be scored as non-compliance if they violate an instruction.

Examples: - father tells subject to stay away from the door. Subject says in a whining voice,
"I want to go outside".

- subject falls to the floor kicking and screaming.

- mother says, "Put your toys away it's time for bed", child says "no" and starts screaming.

3) **Demand (D)**

**Definition:** This category is coded for any instance of an instruction or command directed to another person by the child that is judged to be aversive or unpleasant because of the content of the instruction, the voice quality of the speaker, and/or the assertive behavior of the speaker. The instruction must refer to a specific act of compliance ("Get me a drink, mommy!").

**Examples:**
- subject to mother, "Fix my dinner now".
- subject shouts at this brother, "Get out of my way".
- subject to his sister, "Get out of there".

4) **Physical Negative (PN)**

**Definition:** This category is scored for any actual or threatened physical attack on another person, that involves or potentially involves inflicting physical pain e.g. punching, pushing, kicking, biting, scratching, pinching, striking with object, throwing object at another person, pulling hair, poking with object. It is also scored for any instance of destroying, damaging, or attempting to damage any object (e.g. toys, furniture, clothing) during an interval.

**Examples**
- subject enters and flicks his sister with a rubber band.
- subject picks up a fork and scratches the table with it.
- subject throws a tennis ball and hits his sister on the back.
- subject grabs his brother by the shirt and says: "If you do that again I'll beat you up".

5) **Oppositional (O)**

**Definition:** This category refers to a general class of inappropriate child behaviors that cannot be categorized readily into any other deviant behavior category. This category is scored for any
instance of violating specific family rules that may be imposed (e.g. No riding bikes inside.”). It is also scored for instances of teasing, humiliating or embarrassing someone else; and deliberate ignoring of someone else, that does not constitute non-compliance (e.g. Mother calls "Jim", and Jim takes no notice). (No direct instruction was involved). This category requires the observer to know any specific rules in a family, and to judge whether the observed activity is mock or playful. If this is so it is not scored as oppositional.

Examples: - subject enters and pulls a face at a visitor.

- mother asks child if she had a nice time at school, and the child frowns and yawns, as though she is deliberately ignoring the mother.

- child says over and over "Barry's a chicken."

6) Withdraw (W)

Definition: This category is scored for any behavior that is not directed toward another person or task; the child has withdrawn into him or herself and is not engaged in any task or social interaction. It must last 5 seconds or longer. It is also scored for any repetitive, non-goal directed behavior such as biting fingernails, twirling objects and rocking his or her body.

Examples: - child sits and stares for 5 seconds or longer.

- child stands in corner of room, not speaking.

- child sits rocking and twirling a toy without really playing with it.

7) Appropriate (A)

Definition: Interval in which none of the other (negative) categories are scored.
CATEGORIES OF PARENT BEHAVIOR

1) Praise (P)

Definition: This category is used for a descriptive praise comment directed to the child: praise comment must be descriptive of a specific behavior or of a child characteristic. (not global)

Examples: - Mother says to target child, "I like the way you packed up the toys."
- "What lovely hair you have."

NOT - "You are a good girl."

2) Contact (C)

Definition: This category is scored when the parent caresses or touches the child in a friendly, affectionate or non-aversive manner.

Examples: - Hugging, stroking or kissing the target child.
- Holding hands, ruffling hair, patting, arm around shoulders.
- Guiding the child's hands during a task, dressing the child.

3) Aversive Contact (C-)

Definition: This category is coded whenever the parent makes physical contact with the child in a way that could cause pain or discomfort to the child.

Examples: - Parent hits, slaps or pushes the child.
- Parent forcibly moves the child in a manner that could cause pain or discomfort.
- Parent squeezes the child's arm, twists his/her ear, etc.
- Parent accidentally bumps the child.

4) Question (Q)
Definition: This code is used whenever the parent makes a specific request for information from the child.

Examples: - Parent says to child, "Do you want to play outside?"
          - Parent says to child, "What time is it John?"
          - Parent says to child, "Would you like a sandwich?"

5) Instructions (I)

Definition: This category is coded for all types of instructions that are delivered to the child.

Examples: - Parent says to child, "Go outside and play".
          - "Will you please pick up your toys?"
          - Parent says to child "Stop that immediately".
          - "Come on, it's time for your bath now".

6) Social Attention (S)

Definition: This code is used for any verbal or non-verbal attention to the child that cannot be scored under other categories. Social attention includes both parent initiated attention and responses to the child.

Examples: - "This is a great game Joseph."
          - Parent nods, smiles or winks at the child.
          - Parent answers the child's question.

7) Criticize (CR)

Definition: Make a statement that judges either self or the child or others in a negative way. The criticism can apply to characteristics of the person or their behavior. It can often be non-verbal in that the parent might shake her head and look up, indicating that she thinks the child is stupid. Scored Cr-Other or Cr-Self.

Examples: - "You are being really silly." (Cr-Other)
          - "You can't do that properly, I will"
do it."  (Cr-Other)

- "I don't know how to do it."  (Cr-Self)
8) (Threat of) Punishment (TP)

Definition: Any direct threat or action by parent which carries either loss of some favorable object or activity, or the institution of some aversive (negative) condition set up as a consequence of child's either engaging or not engaging in a given behavior.

Examples: - Parent yells at child, "Stop that now, or you will go to your room."
- "Clean up the toys, or no dessert for you tonight."
- "Stop you fighting, or there will be no more playing today."
- "Stop that, or you'll get a smack."

AFFECT CODES

An affect code must be put down for each behavior that occurs. Code affect on the basis of facial expression, tone of voice and body language. If someone reports an affect (e.g. "I am angry"), that affect is automatically coded. Laughter and giggling is automatically scored as Anxious unless it is an appropriate response to a funny situation.

Affect codes can also be scored alone without a behavior category.

Examples: - child says "I am really angry."
- parent makes an angry face.
  - parent sighs, looking depressed.
- child smiles

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Appendix: Examples of Research using the FO5


