Modified Checklist for Autism in Toddlers, Revised, with Follow-Up (M-CHAT-R/F)™

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Acknowledgement: We thank the M-CHAT Study Group in Spain for developing the flow chart format used in this document.

For more information, please see www.mchatscreen.com or contact Diana Robins at mchatscreen2009@gmail.com

Note. This version contains minor changes to terminology, March 4, 2025.

Permissions for Use of the M-CHAT-R/F™

The Modified Checklist for Autism in Toddlers, Revised with Follow-Up (M-CHAT-R/F; Robins, Fein, & Barton, 2009) is a 2-stage parent-report screening tool to assess the likelihood for autism. The M-CHAT-R/F is available for free download for clinical, research, and educational purposes. Download of the M-CHAT-R/F and related material is authorized from www.mchatscreen.com.

The M-CHAT-R/F is a copyrighted instrument, and use of the M-CHAT-R/F must follow these guidelines:

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Instructions for Use

The M-CHAT-R can be administered and scored as part of a well-child care visit, and also can be used by specialists or other professionals to assess the likelihood for autism. The primary goal of the M-CHAT-R is to maximize sensitivity, meaning to detect as many cases of autism as possible. Therefore, there is a high false positive rate, meaning that not all children who score at increased likelihood will be diagnosed with autism. To address this, we have developed the Follow-Up questions (M-CHAT-R/F). Users should be aware that even with the Follow-Up, a significant number of the children who screen positive on the M-CHAT-R will not be diagnosed with autism; however, these children have an increased likelihood for other developmental disorders or delays, and therefore, evaluation is warranted for any child who screens positive. The M-CHAT-R can be scored in less than two minutes. Scoring instructions can be downloaded from http://www.mchatscreen.com. Associated documents will be available for download as well.

Scoring Algorithm For all items except 2, 5, and 12, the response "NO" indicates elevated likelihood of autism; for items 2, 5, and 12, "YES" indicates elevated likelihood of autism. Score 1 point for each item indicating elevated likelihood of autism. Add all items to calculate **Total Score**. Interpretation of Total Score:

LOW: **Total Score is 0-2**; if child is younger than 24 months, screen again after second birthday. No further action required unless surveillance indicates elevated likelihood for autism.

MODERATE: Total Score is 3-7; Administer the Follow-Up (second stage of M-CHAT-R/F) to get additional information about the elevated likelihood responses. If M-CHAT-R/F score remains at 2 or higher, the child has screened positive. Action required: refer child for diagnostic evaluation and eligibility evaluation for early intervention. If score on Follow-Up is 0-1, child has screened negative. No further action required unless surveillance indicates elevated likelihood for autism. Child should be rescreened at future well-child visits.

HIGH: **Total Score is 8-20**; It is acceptable to bypass the Follow-Up and refer immediately for diagnostic evaluation and eligibility evaluation for early intervention.

M-CHAT-R™

Please answer these questions about your child. Keep in mind how your child <u>usually</u> behaves. If you have seen your child do the behavior a few times, but he or she does not usually do it, then please answer **no**. Please circle **yes** <u>or</u> **no** for every question.

1.	If you point at something across the room, does your child look at it? (FOR EXAMPLE, if you point at a toy or an animal, does your child look at the toy or animal?)	Yes	No
2.	Have you ever wondered if your child might be deaf?	Yes	No
3.	Does your child play pretend or make-believe? (FOR EXAMPLE, pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal?)	Yes	No
4.	Does your child like climbing on things? (FOR EXAMPLE, furniture, playground equipment, or stairs)	Yes	No
5.	Does your child make <u>unusual</u> finger movements near his or her eyes? (FOR EXAMPLE, does your child wiggle his or her fingers close to his or her eyes?)	Yes	No
6.	Does your child point with one finger to ask for something or to get help? (FOR EXAMPLE, pointing to a snack or toy that is out of reach)	Yes	No
7.	Does your child point with one finger to show you something interesting? (FOR EXAMPLE, pointing to an airplane in the sky or a big truck in the road)	Yes	No
8.	Is your child interested in other children? (FOR EXAMPLE, does your child watch other children, smile at them, or go to them?)	Yes	No
9.	Does your child show you things by bringing them to you or holding them up for you to see – not to get help, but just to share? (FOR EXAMPLE , showing you a flower, a stuffed animal, or a toy truck)	Yes	No
10.	Does your child respond when you call his or her name? (FOR EXAMPLE, does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?)	Yes	No
11.	When you smile at your child, does he or she smile back at you?	Yes	No
12.	Does your child get upset by everyday noises? (For Example, does your child scream or cry to noise such as a vacuum cleaner or loud music?)	Yes	No
13.	Does your child walk?	Yes	No
14.	Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?	Yes	No
15.	Does your child try to copy what you do? (FOR EXAMPLE , wave bye-bye, clap, make a funny noise when you do)	Yes	No
16.	If you turn your head to look at something, does your child look around to see what you are looking at?	Yes	No
17.	Does your child try to get you to watch him or her? (FOR EXAMPLE , does your child look at you for praise, or say "look" or "watch me"?)	Yes	No
18.	Does your child understand when you tell him or her to do something? (FOR EXAMPLE, if you don't point, can your child understand "put the book" on the chair" or "bring me the blanket"?)	Yes	No
19.	If something new happens, does your child look at your face to see how you feel about it? (FOR EXAMPLE, if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	Yes	No
20.	Does your child like movement activities? (FOR EXAMPLE , being swung or bounced on your knee)	Yes	No

M-CHAT-R Follow-Up (M-CHAT-R/F)™

Permissions for Use

The Modified Checklist for Autism in Toddlers, Revised, with Follow-Up (M-CHAT-R/F; Robins, Fein, & Barton, 2009) is designed to accompany the M-CHAT-R. The M-CHAT-R/F may be downloaded from www.mchatscreen.com.

The M-CHAT-R/F is a copyrighted instrument, and use of this instrument is limited by the authors and copyright holders. The M-CHAT-R and M-CHAT-R/F may be used for clinical, research, and educational purposes. Although we are making the tool available free of charge for these uses, this is copyrighted material and it is not open source. Anyone interested in using the M-CHAT-R/F in any commercial or electronic products must contact Diana L. Robins at mchatscreen2009@gmail.com to request permission.

Instructions for Use

• The M-CHAT-R/F is designed to be used with the M-CHAT-R; the M-CHAT-R was originally validated for screening toddlers between 16 and 30 months of age, to assess the likelihood for autism. A number of studies have used M-CHAT-R/F up to 48 months, therefore, the tool can be used for children 16 to 48 months old (see Wieckowski et al., 2023, *JAMA Pediatrics* for a systematic review and meta-analysis).

Users should be aware that even with the Follow-Up, a significant number of the children whose score on the M-CHAT-R indicates a high likelihood will not be diagnosed with autism; however, these children have an increased likelihood for other developmental disorders or delays, and therefore, follow-up is warranted for any child who screens positive.

Once a parent has completed the M-CHAT-R, score the instrument according to the instructions. If the child screens positive, select the Follow-Up items based on which items the child scored at high likelihood on the M-CHAT-R; only those items that were originally scored at high likelihood need to be administered for a complete interview.

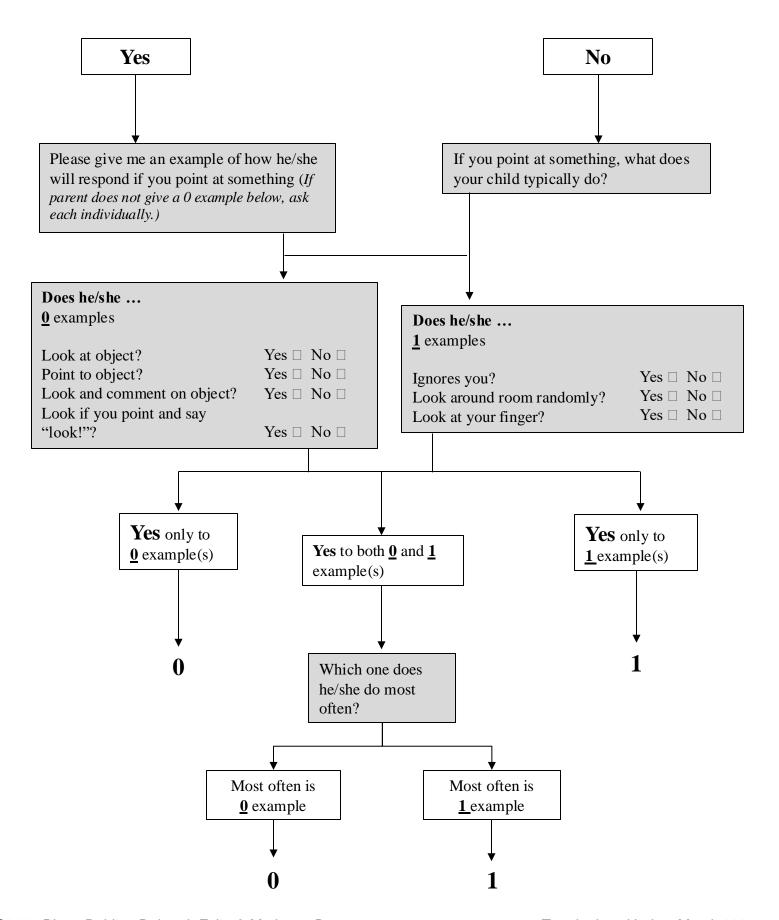
Each page of the interview corresponds to one item from the M-CHAT-R. Follow the flowchart format, asking questions until a 0 or 1 is scored. Please note that parents may report "maybe" in response to questions during the interview. When a parent reports "maybe," ask whether most often the answer is "yes" or "no" and continue the interview according to that response. In places where there is room to report an "other" response, the interviewer must use his/her judgment to determine whether it is a 0 or 1 response.

Score the responses to each item on the M-CHAT-R/F Scoring Sheet (which contains the same items as the M-CHAT-R, but Yes/No has been replaced by 0/1). The interview is considered to be a screen positive if the child scores at high likelihood on two or more items on the Follow-Up. If a child screens positive on the M-CHAT-R/F, it is strongly recommended that the child is referred for early intervention and diagnostic testing as soon as possible. Please note that if the healthcare clinician or parent has concerns about autism, children should be referred for evaluation regardless of the score on the M-CHAT-R or M-CHAT-R/F.

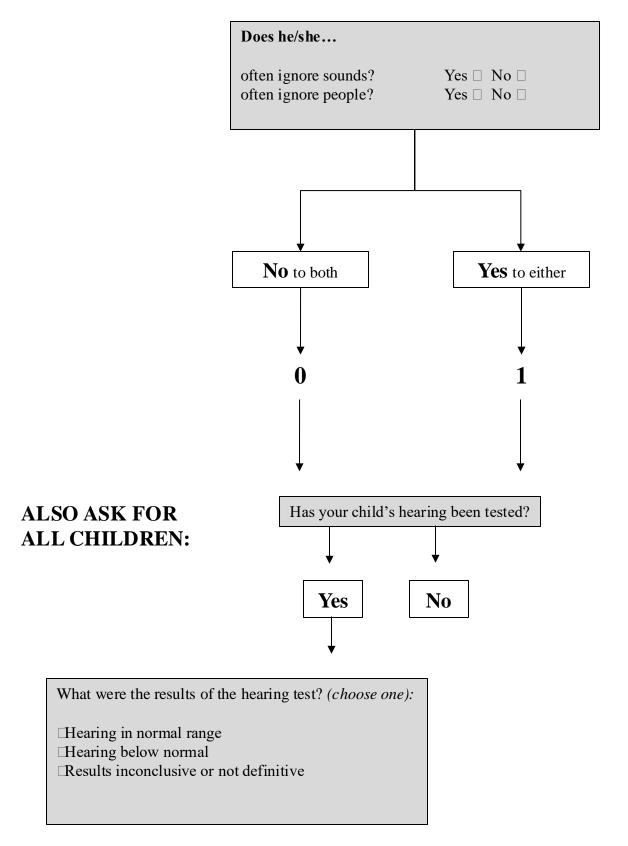
M-CHAT-R Follow-Up™ Scoring Sheet

Please note: Yes/No has been replaced with 0/1. Only administer those items that were scored 1 on initial M-CHAT-R.

 If you point at something across the room, does your child look at it? (FOR EXAMPLE, if you point at a toy or an animal, does your child look at the toy or animal?) 	0	1
 2. Have you ever wondered if your child might be deaf? 3. Does your child play pretend or make-believe? (FOR EXAMPLE, pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal) 	0	1
4. Does your child like climbing on things? (FOR EXAMPLE, furniture, playground equipment, or stairs)	0	1
5. Does your child make <u>unusual</u> finger movements near his or her eyes? (FOR EXAMPLE, does your child wiggle his or her fingers close to his or her eyes?)	0	1
6. Does your child point with one finger to ask for something or to get help? (FOR EXAMPLE , pointing to a snack or toy that is out of reach)	0	1
7. Does your child point with one finger to show you something interesting? (FOR EXAMPLE, pointing to an airplane in the sky or a big truck in the road)	0	1
8. Is your child interested in other children? (FOR EXAMPLE, does your child watch other children, smile at them, or go to them?)	0	1
9. Does your child show you things by bringing them to you or holding them up for you to see – not to get help, but just to share? (FOR EXAMPLE, showing you a flower, a stuffed animal, or a toy truck)	0	1
10. Does your child respond when you call his or her name? (FOR EXAMPLE, does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?)	0	1
11. When you smile at your child, does he or she smile back at you?	0	1
12. Does your child get upset by everyday noises?(FOR EXAMPLE, a vacuum cleaner or loud music)13. Does your child walk?	0	1
14. Does your child look you in the eye when you are talking to him or her, playing with him	0	1
or her, or dressing him or her? 15. Does your child try to copy what you do? (FOR EXAMPLE, wave bye-bye, clap, or make a funny noise when you do)	0	1
16. If you turn your head to look at something, does your child look around to see what	0	1
you are looking at? 17. Does your child try to get you to watch him or her? (FOR EXAMPLE, does your child look at you for praise, or say "look" or "watch me")	0	1
18. Does your child understand when you tell him or her to do something? (For EXAMPLE , if you don't point, can your child understand "put the book on the chair" or "bring me the blanket")	0	1
19. If something new happens, does your child look at your face to see how you feel about it? (FOR EXAMPLE, if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	0	1
20. Does your child like movement activities?	0	1
(FOR EXAMPLE, being swung or bounced on your knee) Tota	al Score:	

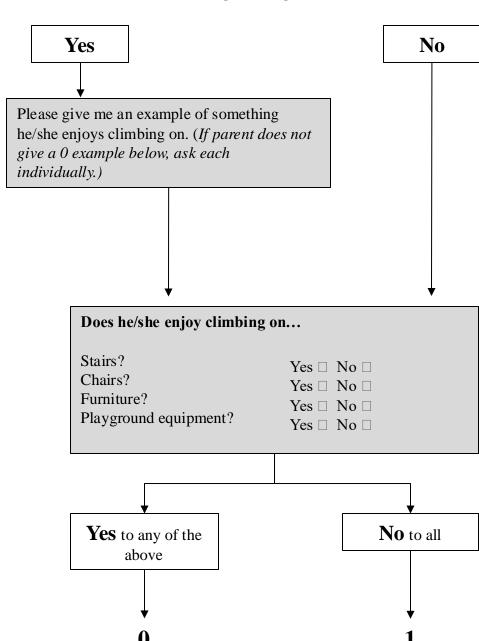


2. You reported that you have wondered if you child is deaf. What led you to wonder that?

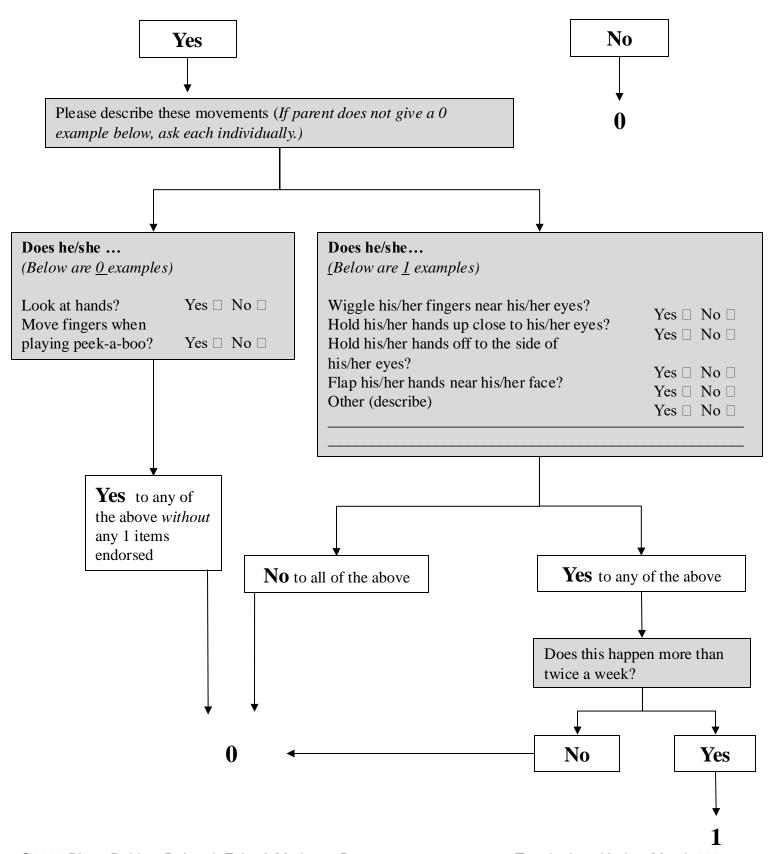


3. Does _____ play pretend or make-believe? No Yes Please give me an example of his/her pretend play. (If parent does not give a 0 example below, ask each individually.) Does he/she usually... Pretend to drink from a toy cup? Yes □ No □ Pretend to eat from a **toy** spoon or fork? Yes □ No □ Pretend to talk on the telephone? Yes □ No □ Pretend to feed a doll or stuffed animal with real or imaginary food? Yes □ No □ Push a car as if it is going along a pretend road? Yes □ No □ Pretend to be a robot, an airplane, a ballerina, or any other favorite character? Yes □ No □ Put a toy pot on a pretend stove? Yes □ No □ Stir imaginary food? Yes □ No □ Put an action figure or doll into a car or truck as if it is the driver or 0enger? Yes □ No □ Pretend to vacuum the rug, sweep the floor, or the mow lawn? Yes □ No □ Other (describe) Yes □ No □ **Yes** to any No to all

4. Does _____ like climbing on things?



5. Does _____ make unusual finger movements near his/her eyes?



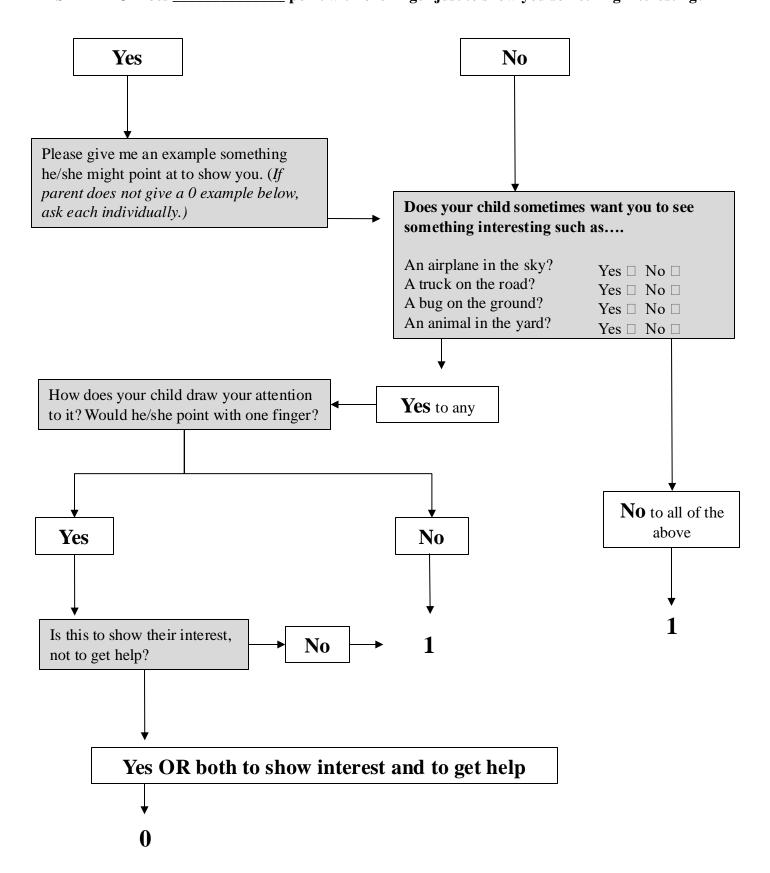
_____ point with one finger to ask for something or to get help? 6. Does Yes No If there is something your child wants that is out of reach, such as a snack or toy that is out of reach, how does he/she get it? (If parent does not give a 0 example below, ask each individually.) Does he/she... Yes □ No □ Reach for the object with his/her whole hand? Yes □ No □ Lead you to the object? Yes □ No □ Try to get the object for him/herself? Yes □ No □ Ask for it using words or sounds? **Yes** to any of the above **No** to all of the above

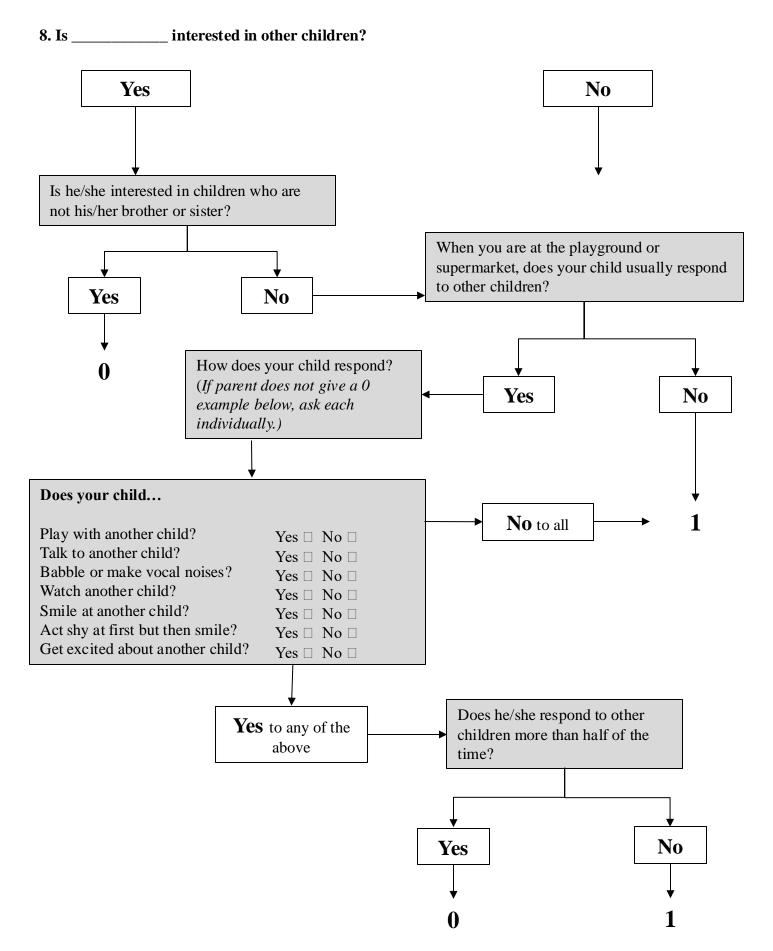
No

If you said "Show me," would he/she point at it?

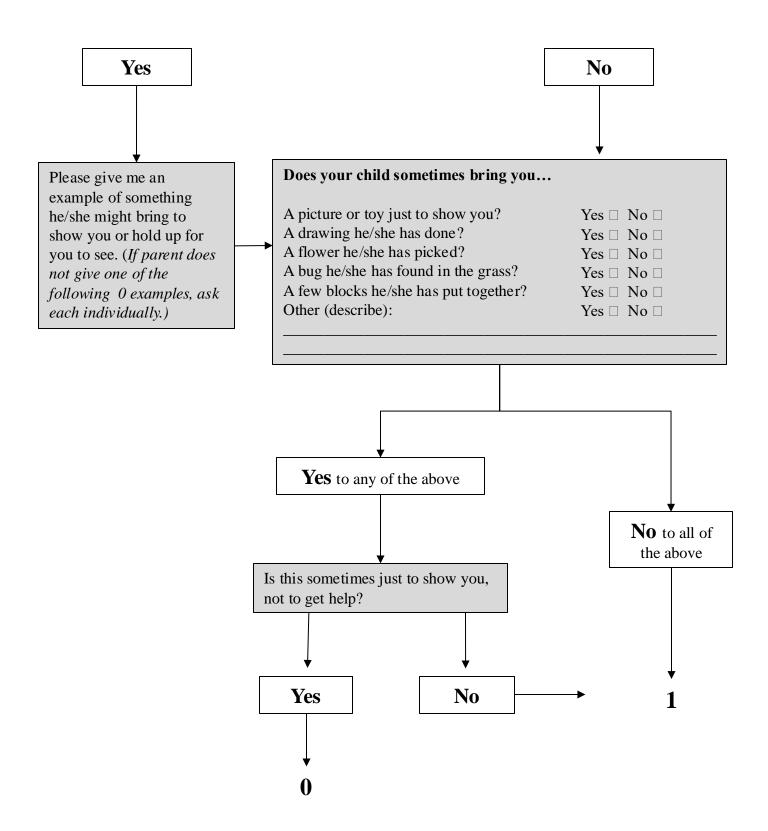
Yes

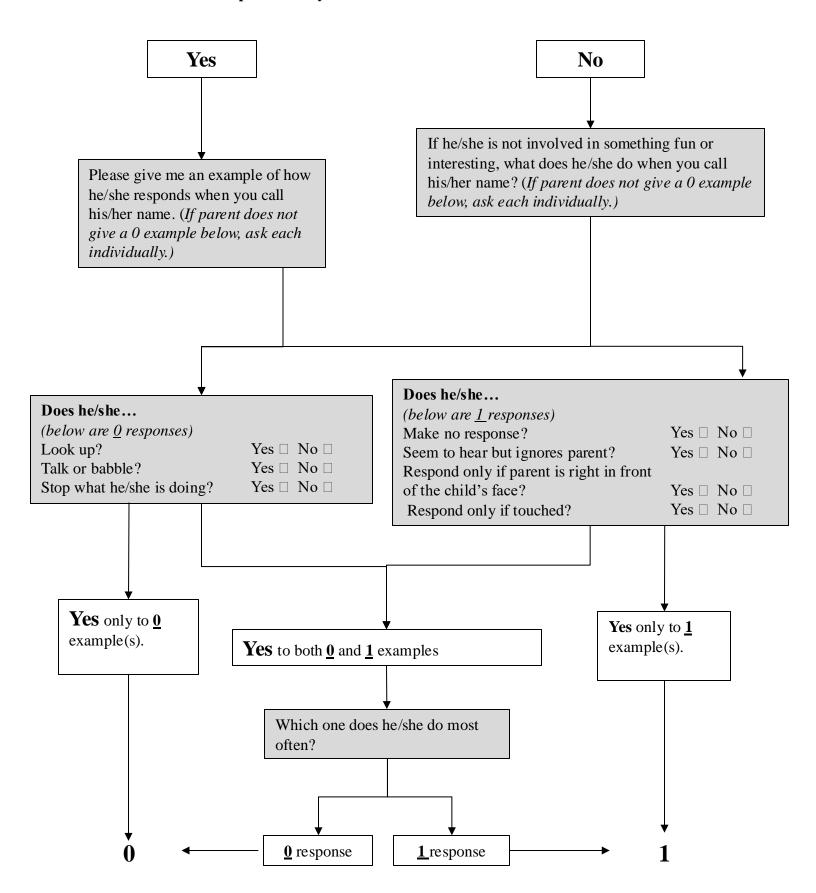
7. * If the interviewer just asked #6, begin here: We just talked about pointing to ask for something, ASK ALL \rightarrow Does ______ point with one finger just to show you something interesting?



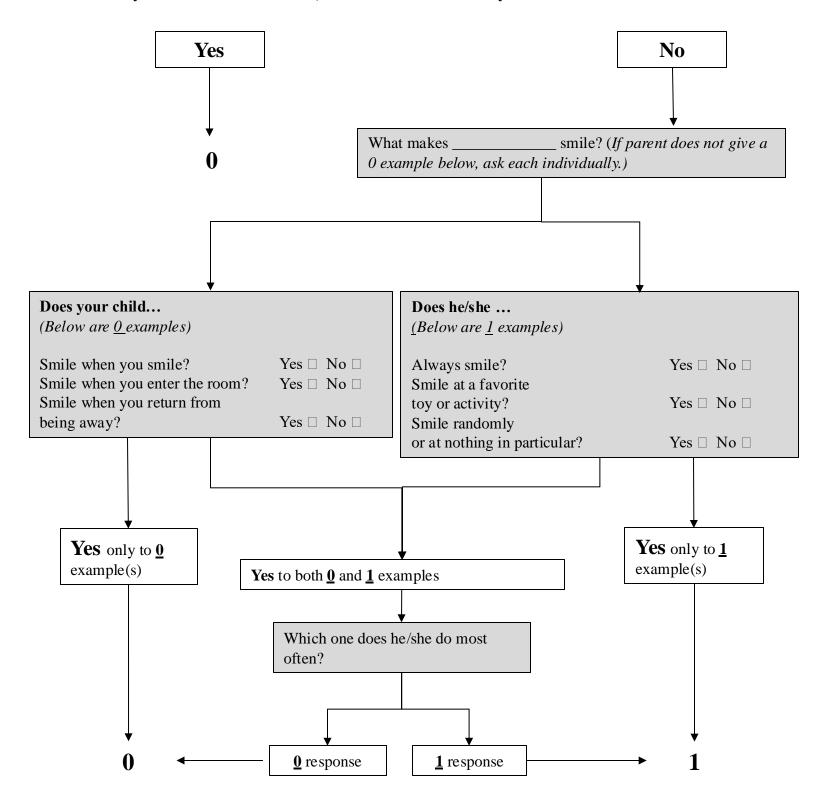


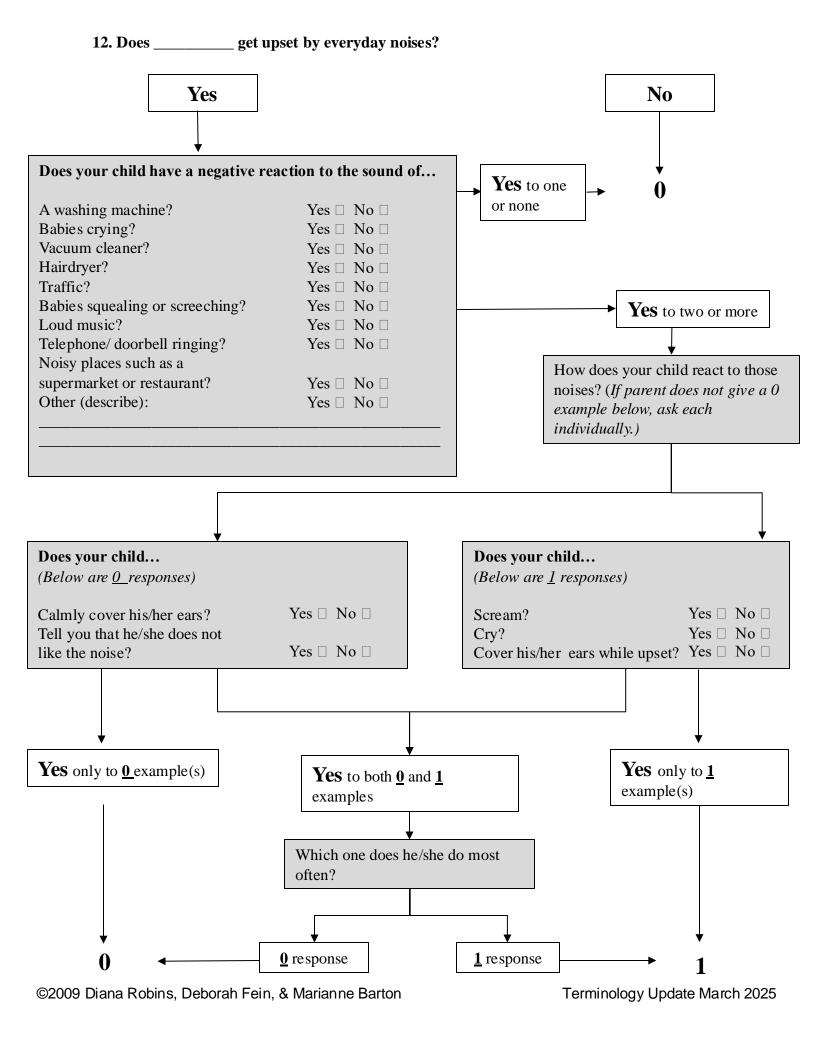
9. Does ______ show you things by bringing them to you or holding them up for you to see? Not just to get help, but to share?

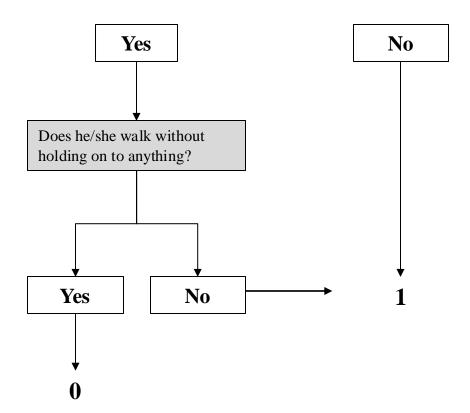




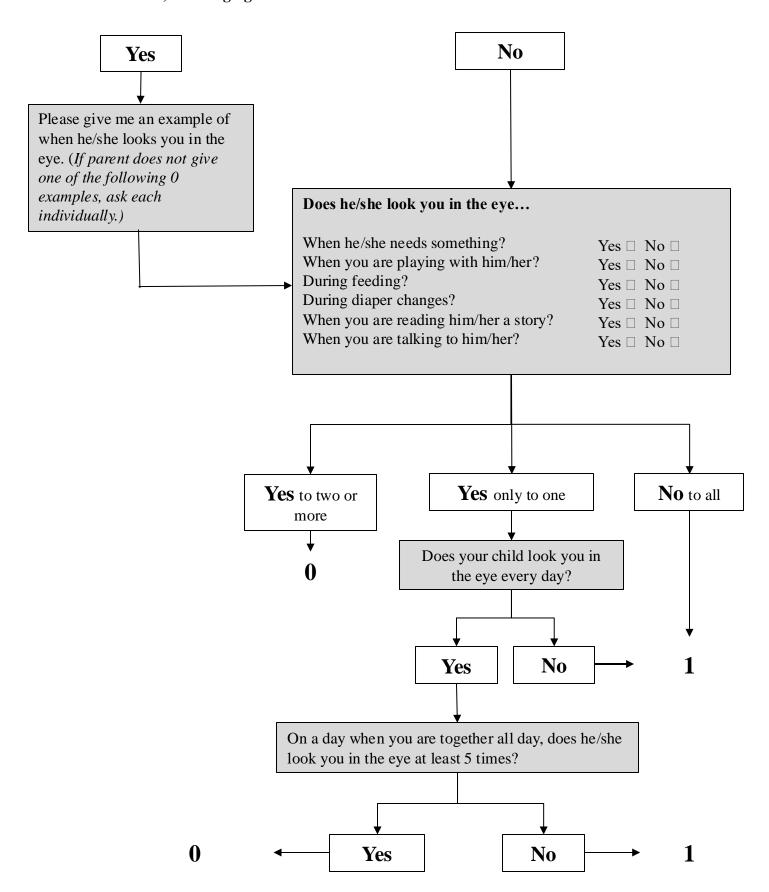
11. When you smile at ______, does he/she smile back at you?

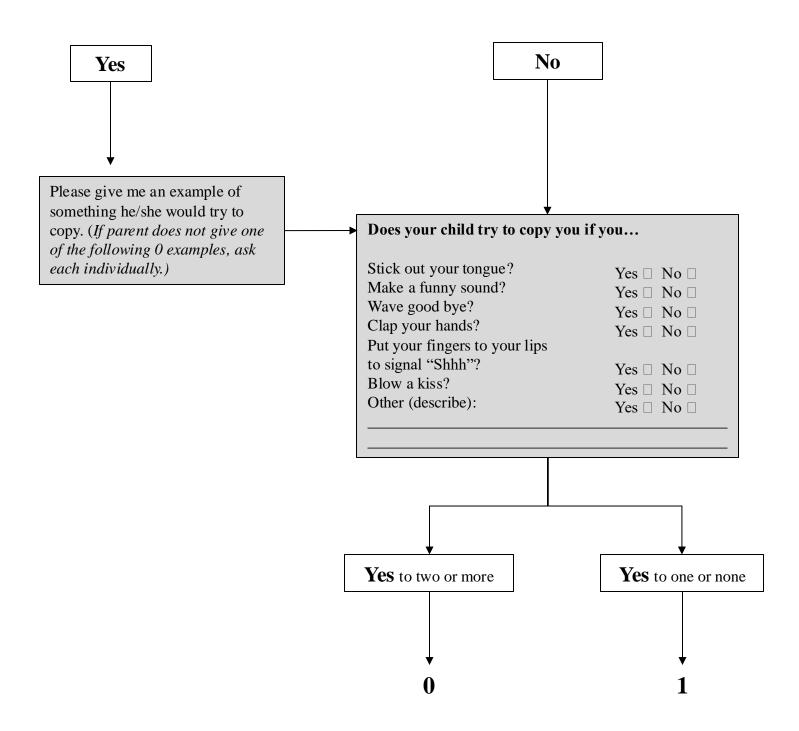




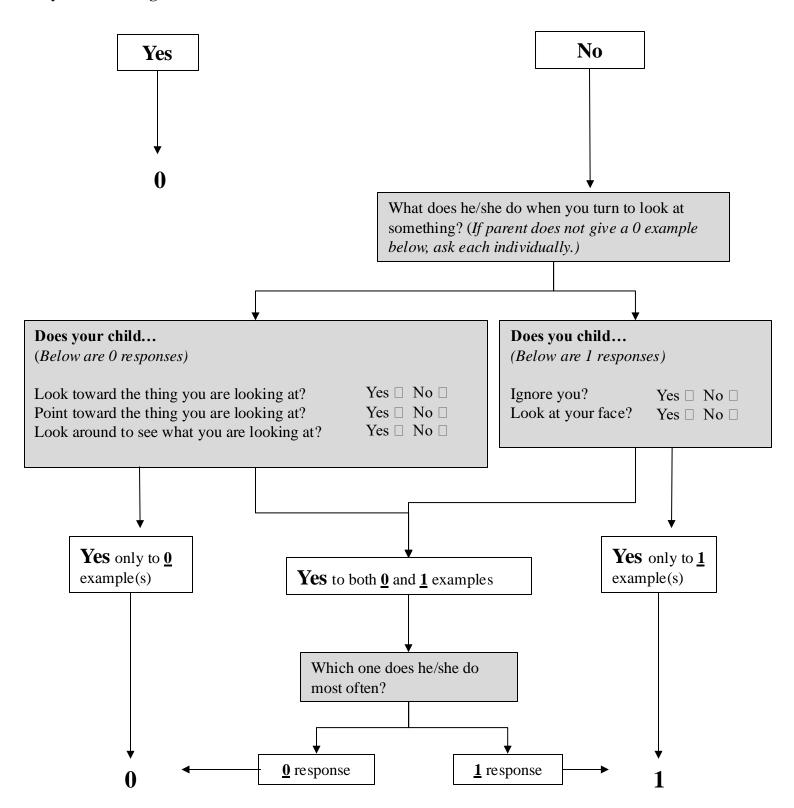


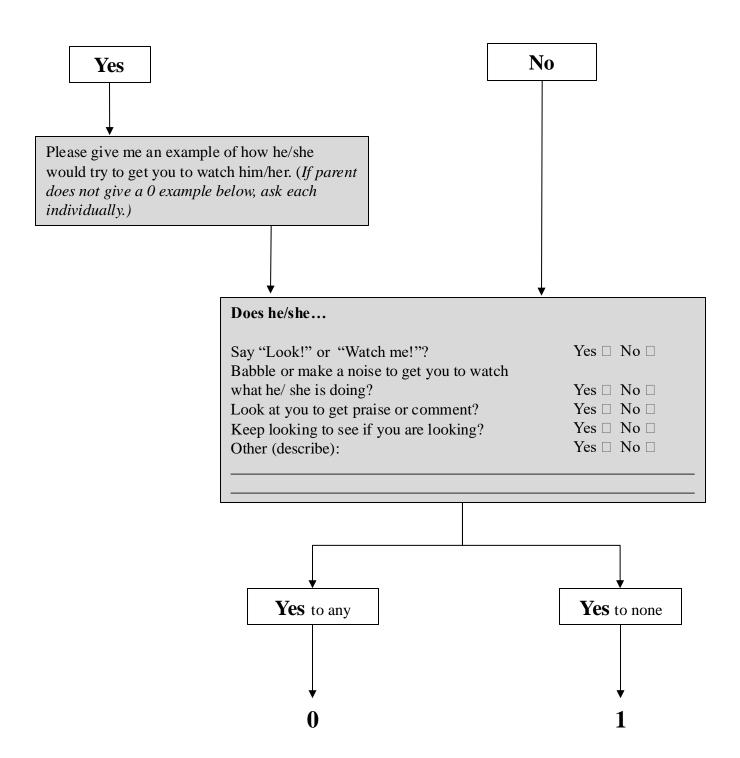
14. Does ______ look you in the eye when you are talking to him/her, playing with him/her, or changing him/her?

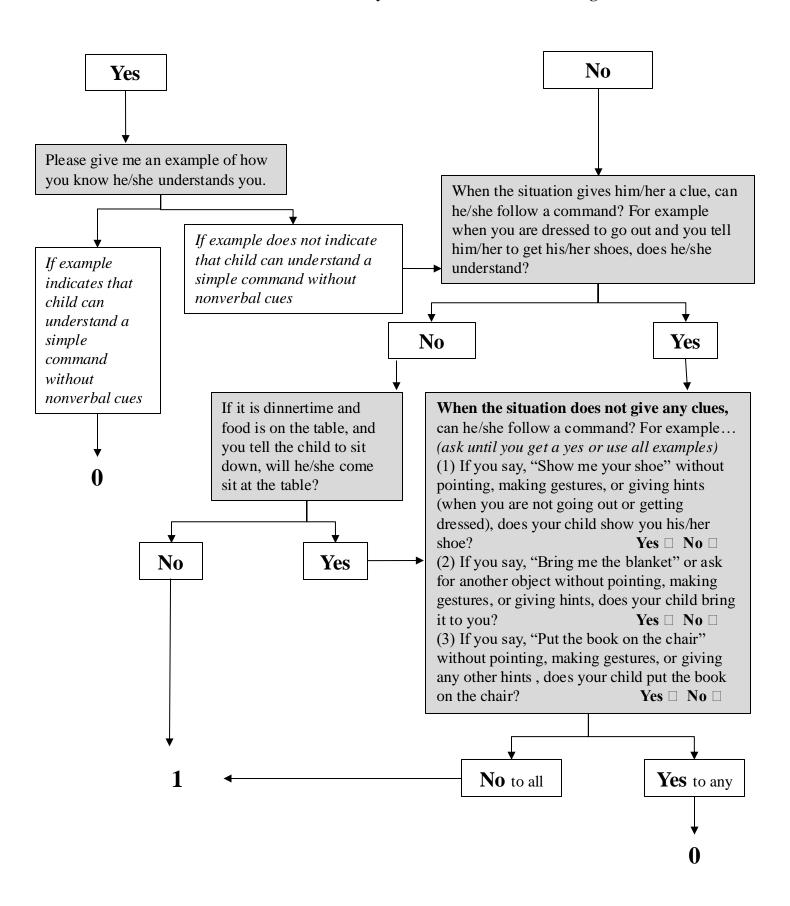




16. If you turn your head to look at something, does _____ look around to see what you are looking at?







19. If something new happens, does _____ look at your face to see how you feel about it?

