# Appendix 1

Examples of CHAPS items

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| **Listening condition** | **Condition description** | **Examples of test items** |
| **有噪音**  **Noise** | 当在有背景噪声（如电视声、音乐声、谈话声、小孩玩耍声等）房间时，该儿童与类似情况下多数同龄者相比，听到或听懂有困难:  If listening in a room where there is background noise such as TV, music, others talking, children playing, etc., this child has difficulty hearing and understanding compared to other children of similar age and background. | 1. 注意力集中时   When paying attention   1. 被提问时   When being asked a question   1. 收到简单指令时   When being given simple instructions  … |
| **安静**  **Quiet** | 当在安静房间时（也许有他人在场，但均保持安静），该儿童与类似情况下多数同龄者相比，听到或听懂有困难:  If listening in a quiet room (others may be present, but are being quiet), this child has difficulty hearing and understanding compared to other children of similar age and background. | 8. 注意力集中时  When paying attention  9. 被提问时  When being asked a question  10. 收到简单指令时  When being given simple instructions  … |
| **理想**  **Ideal** | 当在安静房间，没有任何分心事物，与说话人面对面，且双方有良好眼神交流时，该儿童与类似情况下多数同龄者相比，听到或听懂有困难:  When listening in a quiet room, no distractions, face-to-face, and with good eye contact, this child has difficulty hearing and understanding compared to other children of similar age and background. | 15. 被提问时  When being asked a question  16. 收到简单指令时  When being given simple instructions  … |
| **多种信息**  **输入**  **Multiple Inputs** | 当除听觉信息外，还有其他形式信息（如视觉、触觉等）输入时，该儿童与类似情况下多数同龄者相比，听到或听懂有困难:  When, in addition to listening, there is also some other form of input, (i.e. visual, tactile, etc.) this child has difficulty hearing and understanding compared to other children of similar age and background. | 18. 边听边看着说话人脸时  When listening and watching the speaker’s face  19. 别人大声朗读，边听边跟读时  When listening and reading along when material is read aloud by another  … |
| **听觉记忆**  **排序**  **Auditory Memory Sequencing** | 当被要求回忆之前讲过的信息时，该儿童与类似情况下多数同龄者相比，听到或听懂有困难:  If required to recall spoken information, this child has difficulty hearing and understanding compared to other children of similar age and background. | 21. 立即回忆诸如字词、拼写、数字等信息时  Immediately recalling information such as a word, word spelling, numbers etc.  22. 立即回忆简单指令时  Immediately recalling simple instructions  … |
| **听觉注意**  **广度Auditory Attention Span** | 当需要倾听较长时间时，该儿童与类似情况下多数同龄者相比，集中注意力（即，专心倾听别人的话）有困难：  If extended periods of listening are required, this child has difficulty paying attention, that is, being attentive to what is  being said compared to other children of similar age and background. | 29. 当倾听时长少于5分钟时  When the listening time is less than 5 minutes.  30. 当倾听时长介于5到10分钟之间时  When the listening time is 5-10 minutes  … |

# Appendix 2

Detailed information of autistic participants.

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| **SUB#(S/A)** | **Additional diagnostic instruments** | **Co-Condition(s)** | **ABC** | **CARS** | **IQ** |
| 1(M/7) | / | / | 70 | 34 | 87 |
| 2(M/8) | / | / | 72 | 33 | 95 |
| 3(F/7) | / | / | 85 | 35 | 74 |
| 4(M/6) | EEG, CBCL | / | 77 | 35 | 73 |
| 5(M/6) | / | / | 74 | 32 | 77 |
| 6(F/11) | EEG, CBCL, MINI-Kid | OCD, Anxiety | 94 | 40 | 70 |
| 7(M/6) | / | / | 69 | 30 | 101 |
| 8(M/9) | / | / | 76 | 30 | 104 |
| 9(M/8) | / | / | 80 | 34 | 115 |
| 10(M/12) | / | / | 82 | 32 | 127 |
| 11(M/9) | / | / | 69 | 32 | 116 |
| 12(M/9) | / | / | 71 | 31 | 128 |
| 13(M/12) | / | / | 71 | 30 | 130 |
| 14(F/10) | / | / | 81 | 36 | 115 |
| 15(M/8) | EEG | / | 86 | 33 | 72 |
| 16(M/8) | / | / | 80 | 32 | 118 |
| 17(M/8) | / | / | 88 | 33 | 107 |
| 18(M/8) | EEG, CBCL, MINI-Kid, ICD-10 | Depression | 96 | 35 | 95 |
| 19(M/10) | / | / | 88 | 36 | 116 |
| 20(M/10) | CBCL | / | 90 | 31 | 124 |
| 21(M/9) | / | / | 76 | 34 | 102 |
| 22(M/11) | / | / | 71 | 30 | 111 |
| 23(M/8) | / | / | 89 | 35 | 97 |
| 24(M/9) | / | / | 69 | 30 | 102 |
| 25(M/10) | / | / | 83 | 32 | 121 |
| 26(M/10) | / | / | 76 | 32 | 117 |

*Note. SUB#(S/A)=Subject number (Sex/Age), F=Female, M=Male; ABC=Autism Behavior Checklist; CARS=* *Childhood Autism Rating Scale; IQ=intelligence quotient; CBCL=Child Behavior Checklist, EEG=Electroencephalography, ICD-10= International Statistical Classification of Diseases and Related Health Problems–10th Edition,* *MINI-Kid=Mini International Neuropsychiatric Interview for Children and Adolescents; OCD=Obsessive-compulsive disorder.*