

Supplementary Table S1. ADI-R and ADOS Items Applied to Proposed DSM-V Criteria

		Under 4, Mod 1	Under 4, Mod 2	Under 4, Mod 3	4 to 10, Mod 1	4 to 10, Mod 2	4 to 10, Mod 3	Over 10, Mod 1	Over 10, Mod 2	Over 10, Mod 3-4
A1. Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction	ADI-R ITEMS (CUR.)	COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 COM46 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 COM46 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 COM46 SOCIAL51 ^a	COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL61 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a	COM31 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a	COM34 COM35 COM31 SOCIAL52 SOCIAL54 SOCIAL55 SOCIAL51 ^a
	ADOS ITEMS	MOD1B12 MOD1B5 MOD1A6 MOD1A2 MOD1B8 MOD1B9 MOD1B10 MOD1B6 MOD1B2	MOD2B8 MOD2B3 MOD2B5 MOD2B6 MOD2B4 MOD2A2 MOD2B10 MOD2A6	MOD3B7 MOD3B4 MOD3B9 MOD3A8 MOD3A5 MOD3A6	MOD1B12 MOD1B5 MOD1A6 MOD1A2 MOD1B8 MOD1B9 MOD1B10 MOD1B6 MOD1B2	MOD2B8 MOD2B3 MOD2B5 MOD2B6 MOD2B4 MOD2A2 MOD2B10 MOD2A6	MOD3B7MO D3B4 MOD3B9 MOD3A8 MOD3A5 MOD3A6	MOD1B12 MOD1B5 MOD1A6 MOD1A2 MOD1B8 MOD1B9 MOD1B10 MOD1B6 MOD1B2	MOD2B8 MOD2B3 MOD2B5 MOD2B6 MOD2B4 MOD2A2 MOD2B10 MOD2A6	MOD3B7/M OD4B9 MOD3&4B4 MOD3B9/M OD4B11 MOD3&4A8 MOD3&4A5 MOD3&4A6

A2. Deficits in nonverbal communicative behaviors used for social interaction; ranging from poorly integrated- verbal and nonverbal communication, through abnormalities in eye contact and body-language, or deficits in understanding and use of nonverbal communication, to total lack of facial expression or gestures	ADI-R ITEMS (CUR.)	SOCIAL50 COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	SOCIAL50 COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	SOCIAL50 COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56	COM42 COM43 COM44 COM45 SOCIAL57 SOCIAL56
	ADOS ITEMS	MOD1B4 MOD1B7 ^b MOD1A7 MOD1B11 MOD1B1 MOD1B3 MOD1A8	MOD2A7 MOD2B7 MOD2B1 MOD2B2 MOD2A8	MOD3B1 MOD3B2 MOD3A9 MOD3B3 ^b	MOD1B4 MOD1B7 ^b MOD1A7 MOD1B11 MOD1B1 MOD1B3 MOD1A8	MOD2A7 MOD2B7 MOD2B1 MOD2B2 MOD2A8	MOD3B1 MOD3B2 MOD3A9 MOD3B3 ^b	MOD1B4 MOD1B7 ^b MOD1A7 MOD1B11 MOD1B1 MOD1B3 MOD1A8	MOD2A7 MOD2B7 MOD2B1 MOD2B2 MOD2A8	MOD3&4B1 MOD3&4B2 MOD3&4A9 MOD3&4B3 ^b MOD4A10 MOD4B5
A3. Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behavior to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people	ADI-R ITEMS (CUR.)	SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63	SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63 COM49 SOCIAL64 SOCIAL35 SOCIAL66	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63 COM49 SOCIAL64 SOCIAL35 SOCIAL66	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL62 SOCIAL63 COM49 SOCIAL64 SOCIAL35 SOCIAL66	SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL35 SOCIAL66	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL35 SOCIAL66	COM36 SOCIAL58 SOCIAL53 SOCIAL59 SOCIAL35 SOCIAL66
	ADOS ITEMS		MOD2B11 MOD2B9	MOD3B10 MOD3B8		MOD2B11 MOD2B9	MOD3B10 MOD3B8		MOD2B11 MOD2B9	MOD3B10/ MOD4B12 MOD3B8/ MOD4B10

preoccupation with unusual objects, excessively circumscribed or perseverative interests)	ADOS ITEMS			MOD3D4			MOD3D4			MOD3&4D4
B4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain, heat, cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects)	ADI-R ITEMS (EVER)	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71	RRB72 RRB73 RRB71
	ADOS ITEMS	MOD1D1	MOD2D1	MOD3D1	MOD1D1	MOD2D1	MOD3D1	MOD1D1	MOD2D1	MOD3&4D1

Note: ^a = Moved from A2 based on experts' comments

^b = Added based on experts' comments

^c = Based on experts' comments, intonation items on ADI-R and ADOS removed from repetitive speech for all groups

Supplementary Table S2. ADI-R and ADOS Items Applied to DSM-IV-TR Criteria

		Under 4, Mod 1	Under 4, Mod 2	Under 4, Mod 3	4 to 10, Mod 1	4 to 10, Mod 2	4 to 10, Mod 3	Over 10, Mod 1	Over 10, Mod 2	Over 10, Mod 3-4
A1 (a) Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction	ADI-R ITEMS (CUR)	SOCIAL50 SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL50 SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL50 SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56	SOCIAL57 COM43 COM44 COM45 SOCIAL56
	ADOS ITEMS	MOD1B11 MOD1A7 MOD1A8 MOD1B1 MOD1B3 MOD1B4 MOD1B7 ³	MOD2B7 MOD2A7 MOD2A8 MOD2B1 MOD2B2	MOD3A9 MOD3B1 MOD3B2 MOD3B3	MOD1B11 MOD1A7 MOD1A8 MOD1B1 MOD1B3 MOD1B4 MOD1B7 ³	MOD2B7 MOD2A7 MOD2A8 MOD2B1 MOD2B2	MOD3A9 MOD3B1 MOD3B2 MOD3B3	MOD1B11 MOD1A7 MOD1A8 MOD1B1 MOD1B3 MOD1B4 MOD1B7 ³	MOD2B7 MOD2A7 MOD2A8 MOD2B1 MOD2B2	MOD3&4A9 MOD3&4B1 MOD3&4B2 MOD3&4B3 MOD4A10 MOD4B5
A1 (b) Failure to develop peer relationships appropriate to developmental level	ADI-R ITEMS (CUR)	SOCIAL62 SOCIAL63	SOCIAL62 SOCIAL63	SOCIAL62 SOCIAL63	SOCIAL62 SOCIAL63 SOCIAL64 SOCIAL65	SOCIAL62 SOCIAL63 SOCIAL64 SOCIAL65	SOCIAL62 SOCIAL63 SOCIAL64 SOCIAL65	SOCIAL65	SOCIAL65	SOCIAL65
	ADOS ITEMS	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
A1 (c) A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people	ADI-R ITEMS (CUR)	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42	SOCIAL52 SOCIAL54 COM42
	ADOS ITEMS	MOD1B5 MOD1B8 MOD1B9 MOD1B10 MOD1A2	MOD2B3 MOD2B5 MOD2B6 MOD2A2	MOD3B4 MOD3A5	MOD1B5 MOD1B8 MOD1B9 MOD1B10 MOD1A2	MOD2B3 MOD2B5 MOD2B6 MOD2A2	MOD3B4 MOD3A5	MOD1B5 MOD1B8 MOD1B9 MOD1B10 MOD1A2	MOD2B3 MOD2B5 MOD2B6 MOD2A2	MOD3&4B4 MOD3&4A5
A1 (d) Lack of social or emotional reciprocity	ADI-R ITEMS (CUR)	SOCIAL55 SOCIAL59 SOCIAL53 COM31 COM46 SOCIAL58 SOCIAL51 ¹	SOCIAL55 SOCIAL59 SOCIAL53 COM31 COM46 SOCIAL58 SOCIAL51 ¹	SOCIAL55 SOCIAL59 SOCIAL53 COM31 COM46 SOCIAL58 SOCIAL51 ¹	SOCIAL55 SOCIAL59 SOCIAL53 COM31	SOCIAL55 SOCIAL59 SOCIAL53 COM31	SOCIAL55 SOCIAL59 SOCIAL53 COM31	SOCIAL55 SOCIAL59 SOCIAL53 COM31	SOCIAL55 SOCIAL59 SOCIAL53 COM31	SOCIAL55 SOCIAL59 SOCIAL53 COM31 SOCIAL58 SOCIAL51 ¹

	ADOS ITEMS	MOD1B12 MOD1A6 MOD1B6 MOD1B2 ¹	MOD2B8 MOD2B4 MOD2B9 MOD2B11 MOD2B10	MOD3B7 MOD3B8 MOD3B10 MOD3B9	MOD1B12 MOD1A6 MOD1B6 MOD1B2 ¹	MOD2B8 MOD2B4 MOD2B9 MOD2B11 MOD2B10	MOD3B7 MOD3B8 MOD3B10 MOD3B9	MOD1B12 MOD1A6 MOD1B6 MOD1B2 ¹	MOD2B8 MOD2B4 MOD2B9 MOD2B11 MOD2B10	MOD3B7/ MOD4B9 MOD3B8/ MOD4B10 MOD3B10/ MOD4B12 MOD3B9/ MOD4B11
A2 (a) Delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)	ADI-R ITEMS (CUR)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)	Defined based on “Overall Level of Language” and Gestures (LANG35)
	ADOS ITEMS	Defined based on Module and Gestures (MOD1A8)	Defined based on Module and Gestures (MOD2A8)	Defined based on Module and Gestures (MOD3A9)	Defined based on Module and Gestures (MOD1A8)	Defined based on Module and Gestures (MOD2A8)	Defined based on Module and Gestures (MOD3A9)	Defined based on Module and Gestures (MOD1A8)	Defined based on Module and Gestures (MOD2A8)	Defined based on Module and Gestures (MOD3A9/ MOD4A9)
A2 (b) In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others	ADI-R ITEMS (CUR)	Not applicable	COM34 COM35	COM34 COM35	Not applicable	COM34 COM35	COM34 COM35	Not applicable	COM34 COM35	COM34 COM35
	ADOS ITEMS	Not applicable	MOD2A6	MOD3A8 MOD3A6	Not applicable	MOD2A6	MOD3A8 MOD3A6	Not applicable	MOD2A6	MOD3&4A8 MOD3&4A6
A2 (c) Stereotyped or repetitive use of language or idiosyncratic language ^b	ADI-R ITEMS (CUR)	Not applicable	COM33 COM37 COM38	COM33 COM37 COM38	Not applicable	COM33 COM37 COM38	COM33 COM37 COM38	Not applicable	COM33 COM37 COM38	COM33 COM37 COM38
	ADOS ITEMS	MOD1A4 MOD1A5	MOD2A4 MOD2A5	MOD3A3 MOD3A4	MOD1A4 MOD1A5	MOD2A4 MOD2A5	MOD3A3 MOD3A4	MOD1A4 MOD1A5	MOD2A4 MOD2A5	MOD3&4A3 MOD3&4A4
A2 (d) Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level	ADI-R ITEMS (CUR)	SOCIAL61 COM48 COM47	SOCIAL61 COM48 COM47	SOCIAL61 COM48 COM47	SOCIAL61 COM48 COM47 COM49	SOCIAL61 COM48 COM47 COM49	SOCIAL61 COM48 COM47 COM49	Not applicable	Not applicable	Not applicable
	ADOS ITEMS	MOD1C2	MOD2C2	MOD3C1	MOD1C2	MOD2C2	MOD3C1	MOD1C2	MOD2C2	MOD3&4C1

A3 (a) Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus	ADI-R ITEMS (CUR)	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76	RRB67 RRB68 RRB76
	ADOS ITEMS	Not available	Not available	MOD3D4 ⁴	Not available	Not available	MOD3D4 ⁴	Not available	Not available	MOD3&4D4 ⁴
A3 (b) Apparently inflexible adherence to specific, nonfunctional routines or rituals	ADI-R ITEMS (CUR)	RRB70 RRB74 RRB75	RRB70 RRB74 RRB75 COM39	RRB70 RRB74 RRB75 COM39	RRB70 RRB74 RRB75	RRB70 RRB74 RRB75 COM39	RRB70 RRB74 RRB75 COM39	RRB70 RRB74 RRB75	RRB70 RRB74 RRB75 COM39	RRB70 RRB74 RRB75 COM39
	ADOS ITEMS	Not applicable	Not applicable	MOD3D5	Not applicable	Not applicable	MOD3D5	Not applicable	Not applicable	MOD3&4D5
A3 (c) Stereotyped and repetitive motor mannerisms	ADI-R ITEMS (CUR)	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77	RRB78 RRB77
	ADOS ITEMS	MOD1D2	MOD2D2	MOD3D2	MOD1D2	MOD2D2	MOD3D2	MOD1D2	MOD2D2	MOD3&4D2
A3 (d) Persistent preoccupation with parts of objects	ADI-R ITEMS (CUR)	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³	RRB69 RRB71 ³
	ADOS ITEMS	MOD1D4 MOD1D1	MOD2D4 MOD2D1	MOD3D1	MOD1D4 MOD1D1	MOD2D4 MOD2D1	MOD3D1	MOD1D4 MOD1D1	MOD2D4 MOD2D1	MOD3&4D1
B. Delays or abnormal functioning in at least 1 of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play	ADI-R ITEMS (CUR)	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score	Defined by ADI-R section D total score
	ADOS ITEMS	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Note: ¹ Moved from A1 (a) based on experts' comments

² Based on experts' comments, the intonation item was removed from repetitive speech for all groups

³ Added based on experts' comments

⁴ Moved from A3(d) based on experts' comments