

*Psychopathology & Adaptive  
Functioning Across the Life  
Span: Top-Down, Bottom-Up,  
Multi-Informant, & Multi-  
Cultural Challenges & Solutions*

**Thomas M. Achenbach, Ph.D.**  
**Professor of Psychiatry & Psychology**  
**University of Vermont**

# *Outline of Presentation*

- **“Top-down” & “bottom-up” challenges**
- **Multi-informant challenges**
- **Multi-cultural challenges**
- **Practical Solutions**

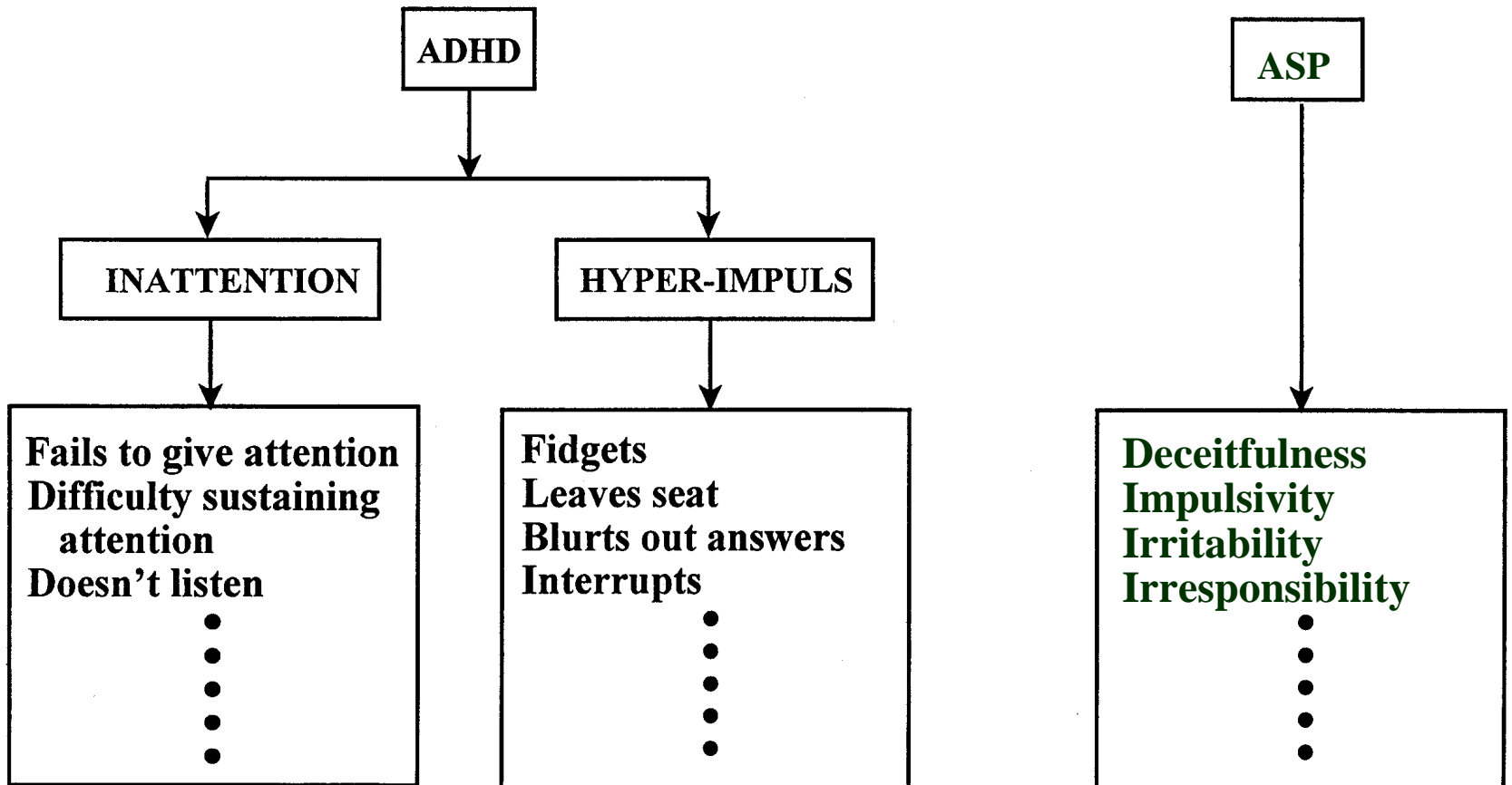
# ***“Top-Down” Approach***

- **Panels of experts negotiate diagnostic categories & criteria**
- **Categories are defined in terms of “yes” vs. “no” decision rules**
- **Field trials are used to evaluate criteria**
- **Criteria are uniform across age & gender**
- **Diagnoses are *not* operationally defined in terms of specific assessment procedures**

# TOP-DOWN APPROACH TO PSYCHOPATHOLOGY *STARTS WITH CONCEPTS OF DISORDERS*



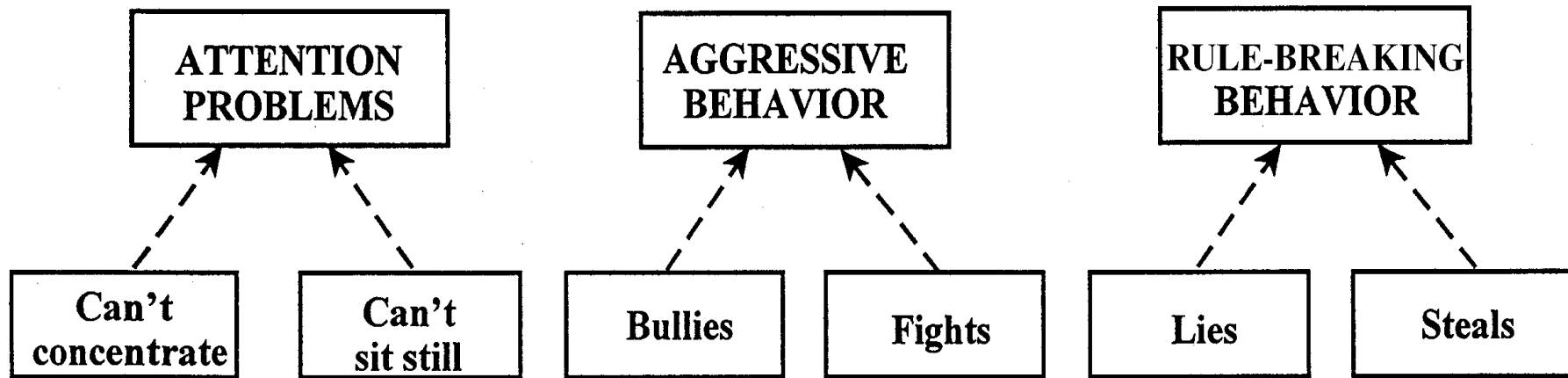
*DEFINES CRITERIA*



# *Empirically Based “Bottom-Up” Approach*

- **Start with data on large pools of items scored for large samples of individuals**
- **Derive syndromes by statistically analyzing item scores**
- **Norm syndrome scales on representative samples by age and gender**
- **Score individuals on normed profiles**
- **Syndromes are operationally defined by specific assessment procedures**

# BOTTOM-UP APPROACH TO PSYCHOPATHOLOGY



*DERIVES SYNDROMES FROM STATISTICAL  
ASSOCIATIONS AMONG PROBLEMS*

*STARTS WITH DATA ON PROBLEMS*

ID: 200105-002

Name: Catherine A. Holcomb

Clinician: Theresa Lopez

**CBCL/6-18 - Syndrome Scale Scores for Girls 6-11**

Gender: Female

Age: 11

Date Filled: 12/04/2000

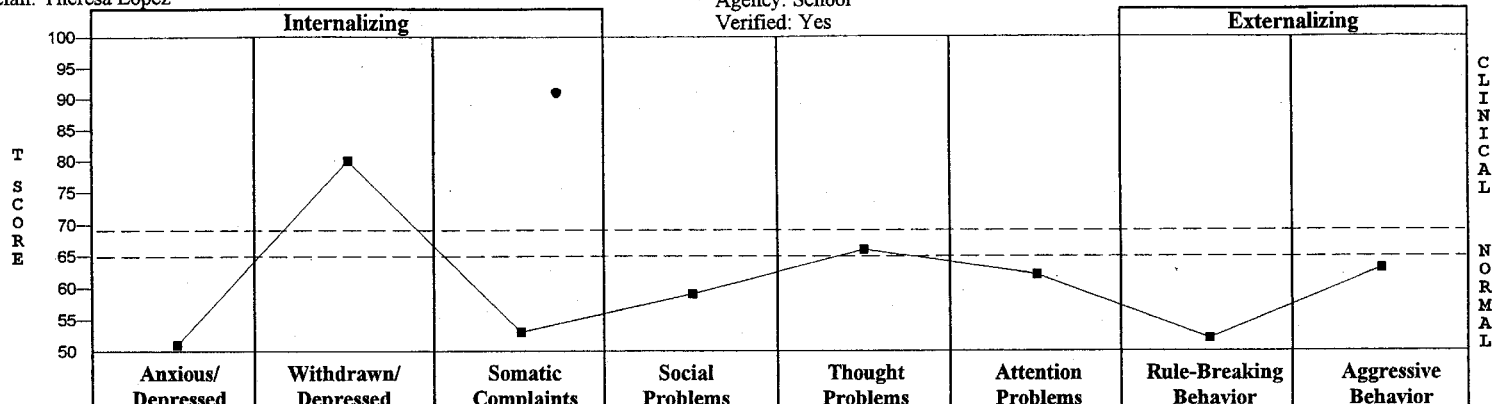
Birth Date: 06/16/1989

Agency: School

Verified: Yes

Informant: Jane Holcomb

Relationship: Biological Mother



CLINICAL  
NORMAL

Total Score	2	10	1	5	5	7	1	11
T Score	51	80-C	53	59	66-B	62	52	63
Percentile	54	>97	62	81	95	89	58	90
0 14. Cries	1 5. Enjoys Little	0 47. Nightmares	1 11. Dependent	0 9. Mind Off	1 1. Acts Young	0 3. Argues		
0 29. Fears	1 42. Prefer Alone	0 49. Constipate	1 12. Lonely	0 18. Harm Self	2 4. Fails To Finish	0 16. Mean		
0 30. Fear School	1 65. Won't Talk	0 51. Dizzy	0 25. Not Get Along	0 40. Hears Things	1 8. Concentrate	0 19. Dem Atten		
0 31. Fear Do Bad	0 69. Secretive	1 54. Tired	1 27. Jealous	0 46. Twitch	0 10. Sit Still	0 20. Destroy Own		
0 32. Perfect	2 75. Shy	0 56a. Aches	0 34. Out To Get	0 58. Picks Skin	0 13. Confused	0 21. Destroy Other		
0 33. Unloved	1 102. Lacks Energy	0 56b. Headaches	0 36. Accidents	0 59. Sex Parts P	1 17. Daydream	0 22. Disb Home		
0 35. Worthless	2 103. Sad	0 56c. Nausea	0 38. Teased	0 60. Sex Parts M	0 41. Impulsive	0 23. Disb School		
0 45. Nervous	2 111. Withdrawn	0 56d. Eye Prob	0 48. Not Liked	0 66. Repeats Acts	1 61. Poor School	0 24. Fights		
0 50. Fearful		0 56e. Skin Prob	1 62. Clumsy	0 70. Sees Things	0 78. Inattentive	0 25. Attacks		
0 52. Guilty		0 56f. Stomach	1 64. Prefer Young	2 76. Sleeps Less	1 80. Stares	0 26. Screams		
1 71. Self Consc		0 56g. Vomit	0 79. Speech Prob	0 83. Stores Up	0 82. Steals Out	2 27. Stubborn		
0 91. Talk Suicide				0 84. Strange Behv	0 90. Swears	2 28. Mood Chang		
1 112. Worries				0 85. Strang Ideas	0 96. Thinks Sex	1 29. Sulks		
				1 92. Sleep Walk	0 99. Tobacco	1 30. Suspicious		
				2 100. Sleep Problem	0 101. Truant	1 31. Teases		
					0 105. Uses Drugs	2 32. Temper		
					0 106. Vandalism	0 33. Threaten		
						0 104. Loud		

# *Relations Between “Bottom-Up” and “Top-Down” Approaches*

- **Similarities between some empirically based syndromes & DSM categories  
e.g., Attention Problems & ADHD**
- **Statistically significant associations between some syndromes & DSM diagnoses in numerous studies**
- **Findings vary according to assessment procedures, subjects, diagnosticians, & analytic methods**



# *Multi-Informant Challenges*

- **Comprehensive assessment requires more than self-reports**
- **Informants' reports often disagree with self-reports and with other informants' reports**

# Mean Correlations Between Informants' Ratings of Children

Informant 1	$\bar{r}$		Informant 2			
			Parent	Teacher	Mental health worker	Observer
Parent	.60	Box A	.59			
Teacher			.27	.64		
Mental health worker	.28	Box B	.24	.34	.54	
Observer			.27	.42	—	.57
Peer			—	.44 <sup>a</sup>	—	—
Self	.22	Box C	.25	.20	.27	—

Note. The  $\bar{r}$ s were computed by z transformation of  $r$ s weighted by the  $df$  for each sample.  
<sup>a</sup> Peers' correlations in all studies were based on aggregation of ratings by multiple peers.

# *Mean Correlations of Self x Informants' Ratings of Adults*

<b>Problem type or instrument type</b>	<b>Mean Correlation</b>	<b>Df</b>
<b><u>Problem type</u></b>		
<b>Substance use</b>	<b>.66</b>	<b>2,525</b>
<b>Internalizing</b>	<b>.45</b>	<b>4,163</b>
<b>Externalizing</b>	<b>.39</b>	<b>3,339</b>
<b>Personality disorders</b>	<b>.32</b>	<b>2,825</b>
<b><u>Instrument type</u></b>		
<b>Interview</b>	<b>.35</b>	<b>1,063</b>
<b>Questionnaire</b>	<b>.43</b>	<b>6,473_</b>

# *Why Self-Reports May Not Be Sufficient for Assessing Adults*

Mean self x informant correlations of .32-.45 for non-substance use, .66 for substance use

70% of diagnoses based on patient interviews were wrong when compared with diagnoses based on multiple sources (Meyer et al., 2001)

Kappa = .12-.18 between diagnoses from interviews with patients vs. from other sources (Meyer et al., 2001)

# *Multi-Cultural Challenges*

- **Help for refugees & immigrants**
- **Differences in language, culture, SES, education, values, expectations**
- **Methods & criteria from one culture may not be applicable to other cultures**
- **Not realistic to have different methods for every cultural group**
- **Much blending of cultures**

# *Practical Solutions:*

## *1. Combining Top-Down & Bottom-Up Assessment*

- Use same item pool to construct empirically based & DSM-oriented scales
- Derive empirically based scales via F.A.
- Experts from 20 cultures identified items consistent w. DSM diagnoses
- Empirically based & DSM-oriented scales displayed on profiles w. age/gender-specific norms

# *School-Age Syndrome Scales*

- **Anxious/Depressed**
- **Withdrawn/Depressed**
- **Somatic Complaints**
- **Social Problems**
- **Thought Problems**
- **Attention Problems**
- **Rule-Breaking Behavior**
- **Aggressive Behavior**

# *School-Age DSM-Oriented Scales*

- **Affective Problems**
- **Anxiety Problems**
- **Somatic Problems**
- **Attention Deficit/Hyperactivity Problems**
- **Oppositional Defiant Problems**
- **Conduct Problems**



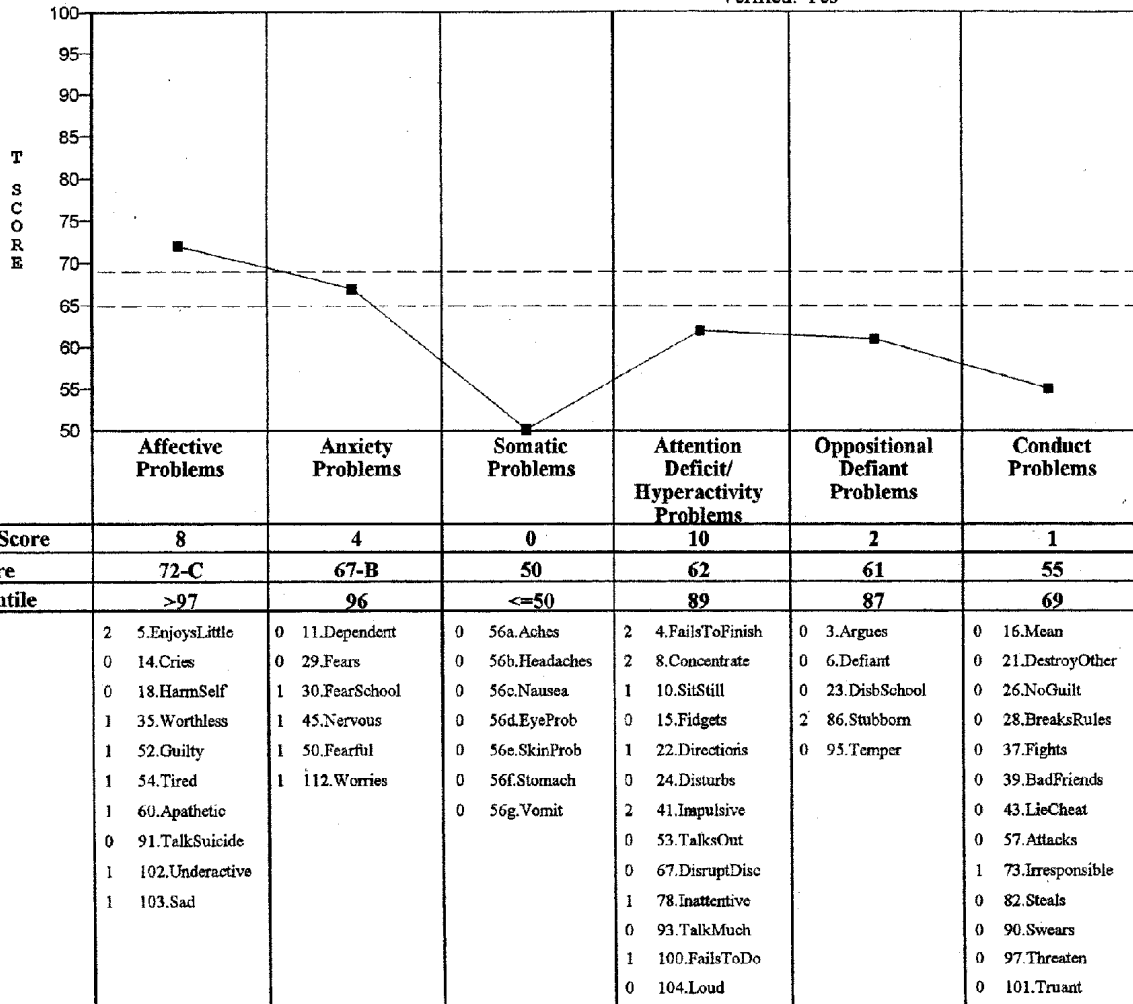
TRF/6-18 - DSM-Oriented Scales for Girls 6-11

ID: 200105-004  
 Name: Catherine A. Holcomb  
 Clinician: Theresa Lopez

Gender: Female  
 Age: 11

Date Filled: 12/01/2000  
 Birth Date: 06/16/1989  
 Agency: School  
 Verified: Yes

Informant: Helen Saunders  
 Relationship: Classroom Teacher {F}



<b>Total Score</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>1</b>
<b>T Score</b>	<b>72-C</b>	<b>67-B</b>	<b>50</b>	<b>62</b>	<b>61</b>	<b>55</b>
<b>Percentile</b>	<b>&gt;97</b>	<b>96</b>	<b>&lt;=50</b>	<b>89</b>	<b>87</b>	<b>69</b>

2 5.EnjoysLittle	0 11.Dependent	0 56a.Aches	2 4.FailsToFinish	0 3.Argues	0 16.Mean
0 14.Cries	0 29.Fears	0 56b.Headaches	2 8.Concentrate	0 6.Defiant	0 21.DestroyOther
0 18.HarmSelf	1 30.FearSchool	0 56c.Nausea	1 10.SitStill	0 23.DisbSchool	0 26.NoGuilt
1 35.Worthless	1 45.Nervous	0 56d.EyeProb	0 15.Fidgets	2 86.Stubborn	0 28.BreaksRules
1 52.Guilty	1 50.Fearful	0 56e.SkinProb	1 22.Directions	0 95.Temper	0 37.Fights
1 54.Tired	1 112.Worries	0 56f.Stomach	0 24.Disturbs		0 39.BadFriends
1 60.Apathetic		0 56g.Vomit	2 41.Impulsive		0 43.LieCheat
0 91.TalkSuicide			0 53.TalksOut		0 57.Attacks
1 102.Underactive			0 67.DisruptDisc		1 73.Irresponsible
1 103.Sad			1 78.Inattentive		0 82.Steals
			0 93.TalkMuch		0 90.Swears
			1 100.FailsToDo		0 97.Threaten
			0 104.Loud		0 101.Truant

B = Borderline clinical range; C = Clinical range

Broken lines = Borderline clinical range

ADH Problems Subscales:		
Inattention (I) Hyperactivity-Impulsivity (H-I)		
I	ADH Problems	H-I
2	4.FailsToFinish	█
2	8.Concentrate	█
█	10.SitStill	1
█	15.Fidgets	0
1	22.Directions	█
█	24.Disturbs	0
█	41.Impulsive	2
█	53.TalksOut	0
█	67.DisruptDisc	0
1	78.Inattentive	█
█	93.TalkMuch	0
1	100.FailsToDo	█
█	104.Loud	0
<b>7</b>	<b>Total Score</b>	<b>3</b>
<b>94</b>	<b>Percentile</b>	<b>79</b>

Borderline = 93rd-97th %ile  
 Clinical = >97th %ile

# *Practical Solutions:*

## *2. Integrating*

### *Multi-Informant Data*

- **Parallel forms for parents, teachers, adult collaterals, self-reports**
- **Side-by-side comparisons of item scores**
- ***Q* correlations between informants**
- **Bar graph comparisons of scale scores**

## Cross-Informant Comparison - Problem Items Common to the CBCL/CTRF/1.5-5

ID: S65432

Name: Kenny K. Randall

Gender: Male

Birth Date: 07/10/97

Comparison Date: 01/31/00

Form	Eval ID	Age	Informant Name	Relationship	Date	Form	Eval ID	Age	Informant Name	Relationship	Date
C151	001	30m	Amy Randall	Mother	01/12/00						
C152	002	30m	Robert Randall	Father	01/13/00						
T153	003	30m	Beatrice Jackson	Teacher {F}	01/18/00						
T154	004	30m	Linda James	Teacher {F}	01/19/00						

C15 C15 T15 T15								C15 C15 T15 T15								C15 C15 T15 T15							
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
<b>Emotionally Reactive</b>								<b>Attention Problems</b>								<b>Other Problems</b>							
21. DistChange	2	1	2	1				5. Concentrate	0	0	2	2				3. AfraidOfNew	2	1	2	1			
46. Twitching	1	0	0	0				6. Can'tSitStill	0	0	2	2				9. ChewNonfood	1	1	1	0			
82. MoodChang	1	2	1	2				56. Clumsy	0	0	0	0				11. SeeksHelp	0	0	0	0			
83. Sulks	2	1	0	0				59. ShiftsQuickly	2	2	2	1				13. Cries	0	0	0	0			
92. UpsetByNew	1	1	2	1				95. Wanders	2	2	2	1				25. NotGetAlong	2	2	2	1			
97. Whining	0	0	0	1				<b>Aggressive Behavior</b>								26. NoFun	1	0	2	1			
99. Worries	0	0	0	0				8. Can'tWait	1	2	2	2				30. Jealous	0	0	0	0			
<b>Anxious/Depressed</b>								15. Defiant	0	0	0	0				31. EatNonFood	0	1	0	0			
10. Dependent	0	0	0	0				16. Demanding	1	2	1	2				32. Fears	0	0	2	2			
33. FeelingsHurt	0	0	0	0				18. DestroyOther	0	0	0	0				34. GetsHurt	0	0	0	0			
37. UpsetBySep	0	0	0	0				20. Disobedient	0	0	0	0				36. GetIntoThing	0	0	1	0			
43. LookUnhapp	1	0	0	0				27. NoGuilt	0	1	1	1				41. HoldsBreath	0	0	0	0			
47. Nervous	2	2	1	2				29. Frustrated	2	2	1	0				50. Overtired	0	0	0	0			
68. SelfConsc	0	0	0	0				35. Fights	0	0	0	0				54. PicksSkin	0	0	0	0			
87. Fearful	1	1	2	1				40. HitsOthers	0	0	0	0				55. SexParts	0	0	0	0			
90. Sad	0	0	0	0				42. HurtsAcciden	2	2	0	1				57. EyeProb	0	0	0	0			
<b>Somatic Complaints</b>								44. AngryMoods	0	0	0	0				60. SkinProb	0	0	0	0			
1. AchesPains	0	0	0	0				53. Attacks	0	0	0	0				61. Won'tEat	0	0	1	0			
7. ThingsOut	1	2	2	2				58. Punishment	0	0	2	1				63. RocksHead	1	0	1	1			
39. Headaches	0	0	0	0				66. Screams	0	0	0	1				72. LittleFear	0	0	1	0			
45. Nausea	0	0	0	0				69. Selfish	1	1	0	0				73. Shy	1	2	1	2			
78. Stomachache	0	0	0	0				81. Stubborn	1	2	2	1				76. SpeechProb	1	1	2	1			
86. TooNeat	1	0	1	2				85. Temper	1	1	2	1				77. Stares	1	1	2	1			
93. Vomiting	0	0	0	0				88. Uncooperativ	0	0	1	2				80. StrangeBeha	1	1	2	1			
<b>Withdrawn</b>								96. WantAttentio	0	0	0	0				89. Underactive	0	0	0	0			
2. ActsYoung	1	2	2	1				<b>CBCL/1.5-5 only: Sleep Problems</b>								91. Loud	0	0	0	0			
4. AvoidsEye	1	1	2	2				22. NotSleepAlo	0	0	-	-											
23. NoAnswer	2	2	2	1				38. SleepProb	0	0	-	-											
62. RefusesActiv	0	0	1	2				48. Nightmares	0	0	-	-											
67. UnRespAffec	1	0	1	2				64. ResistsBed	1	1	-	-											
70. LittleAffect	2	1	0	1				74. SleepLess	2	1	-	-											
71. LittleIntrest	2	1	2	2				84. TalkInSleep	1	1	-	-											
98. Withdrawn	1	1	1	2				94. WakesOften	2	2	-	-											

{F}=Female {M}=Male

### Cross-Informant Comparison - Cross-Informant Correlations CBCL/TRF/YSR

ID: 200105

Name: Catherine A. Holcomb

Gender: Female

Birth Date: 06/16/1989

Form	Eval ID	Age	Informant Name	Relationship	Date	Form	Eval ID	Age	Informant Name	Relationship	Date
CBC1	002	11	J. Holcomb	Biological Mother	12/04/2000						
TRF2	004	11	H. Saunders	Classroom Teacher {F}	12/01/2000						
YSR3	003	11	Self	Self	12/04/2000						

Q Correlations Between Item Scores						
Forms	Informants	Cross- Informant Agreement	Q Corr	Reference Group		
				25th %ile	Mean	75th %ile
CBC1 x TRF2	Biological Mother x Classroom Teacher {F}	Above average	0.53	0.09	0.23	0.37
CBC1 x YSR3	Biological Mother x Self	Average	0.23	0.17	0.29	0.40
TRF2 x YSR3	Classroom Teacher {F} x Self	Average	0.20	0.07	0.19	0.30

### Cross-Informant Comparison - Syndrome Scale T Scores CBCL/TRF/YSR

ID: 200105

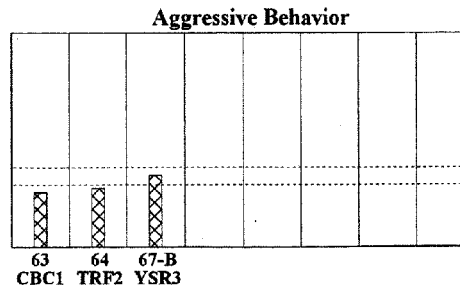
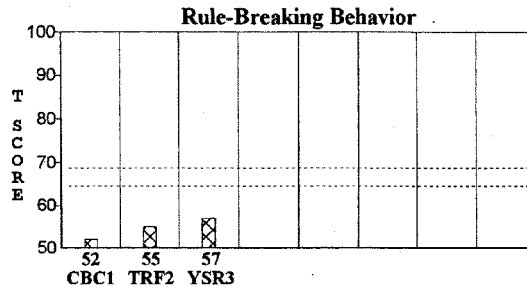
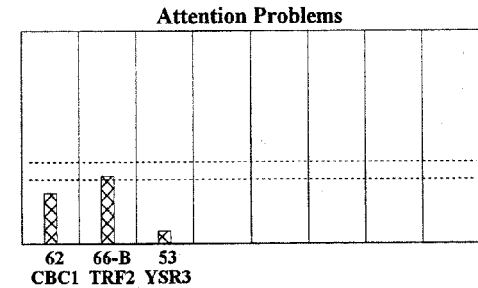
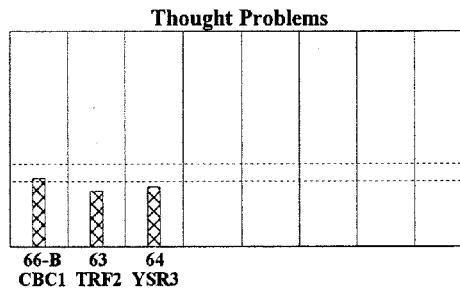
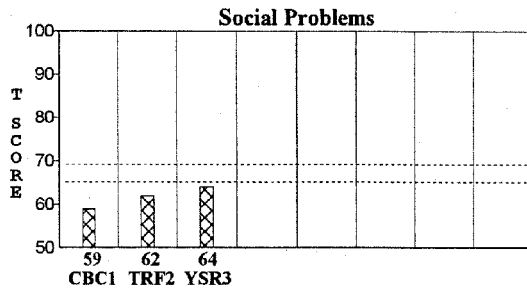
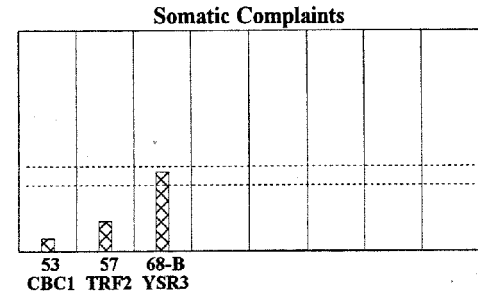
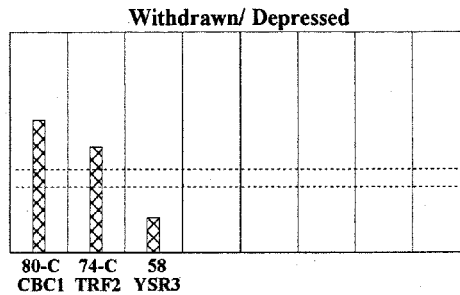
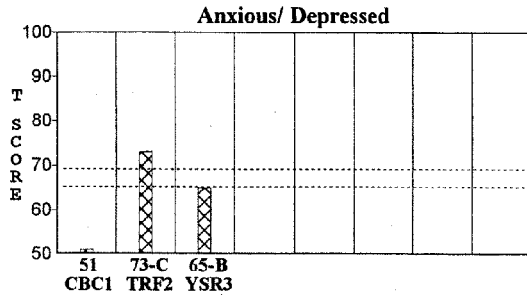
Name: Catherine A. Holcomb

Gender: Female

Birth Date: 06/16/1989

Comparison date: 11/29/2001

Form	Eval ID	Age	Informant Name	Relationship	Date	Form	Eval ID	Age	Informant Name	Relationship	Date
CBC1	002	11	Jane Holcomb	Biological Mother	12/04/2000						
TRF2	004	11	Helen Saunders	Classroom Teacher {F}	12/01/2000						
YSR3	003	11	Self	Self	12/04/2000						



*B = Borderline clinical range; C = Clinical range  
Broken lines = Borderline clinical range*

*{F}=Female {M}=Male*

*nc = not calculated due to insufficient data*

# *Practical Solutions: 3. Multi-Cultural Applications*

- **Translations**
- **Cross-cultural comparisons of normative samples**
- **Multi-cultural factor analyses**
- **Research in multiple cultures**

# ***Multi-Cultural Applications***

- **ASEBA translations in 69 languages**
- **>1,500 published studies report ASEBA research in 62 countries beside the U.S.**
- **Research supports high degree of similarity in problem scores around the world**
- **More cultural variation in competence scores**

# ***ASEBA Translations***

## ***– African***

- Afrikaans, Amharic, Ghananian, Kiambu, Sepedi, Sesotho, Swahili, Zulu

## ***– Asian***

- Bahasa-Indonesia, Bengali, Cambodian, Chinese, Gujerati, Hindi, Japanese, Kannada, Korean, Tagalog, Thai, Tibetan, Vietnamese

## ***– Baltic***

- Estonian, Latvian, Lithuanian

## ***– Northern European***

- Danish, Dutch, Finnish, Flemish, German, Icelandic, Norwegian, Swedish

## ***– Latin American***

- Brazilian, Haitian Creole, Latino Spanish, Papiamentu-Curacao, Portuguese Creole

## ***– Romance***

- Catalan, French, Italian, Portuguese, Romanian, Spanish

## ***– Slavic***

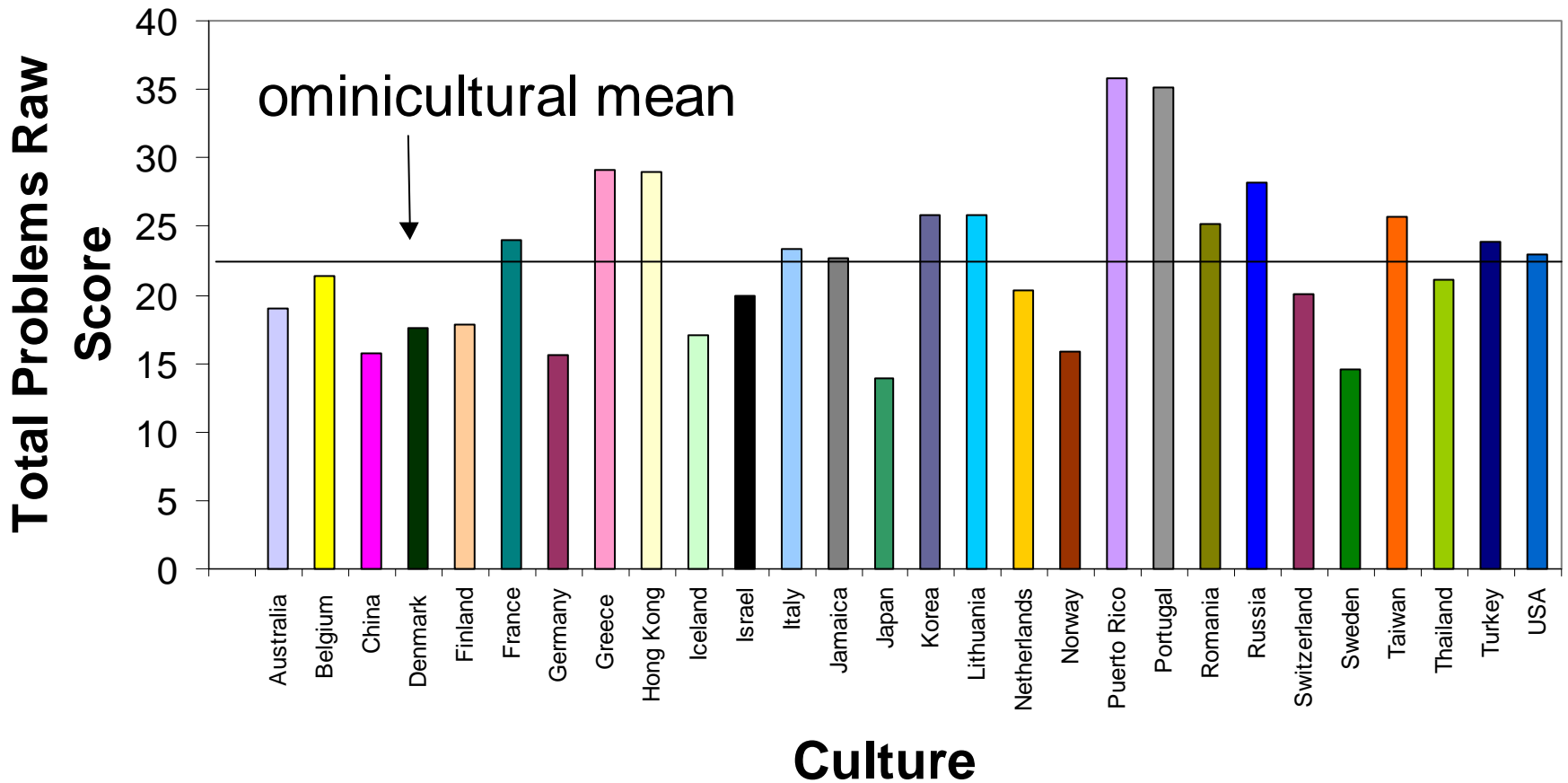
- Bosnian, Bulgarian, Croatian, Czech, Polish, Russian, Serbo-Croatian, Slovenian, Ukrainian

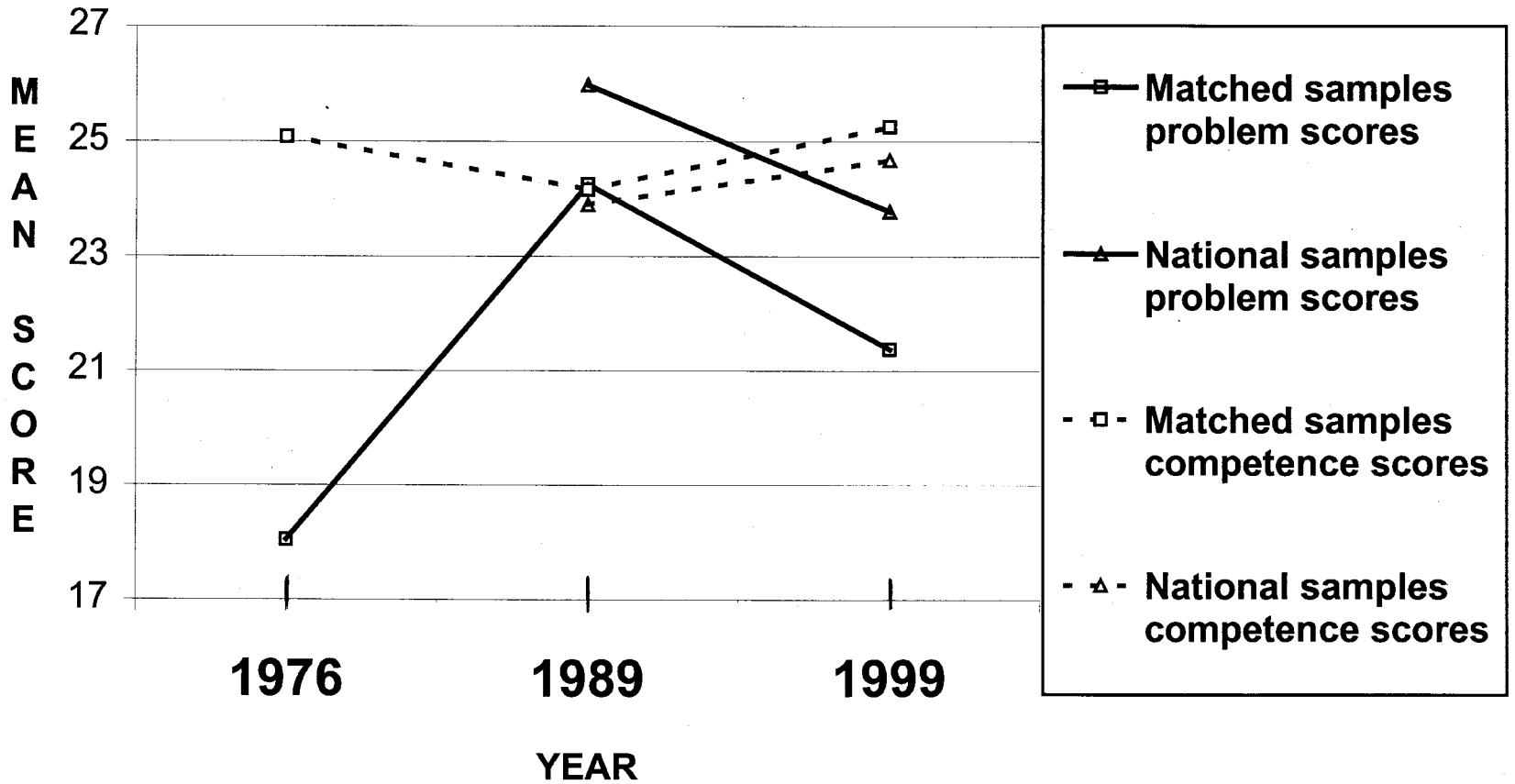
## ***– Other***

- Arabic, Armenian, Greek, Hebrew, Hungarian, Iranian, Sami, Samoan, Sign, Turkish



# Total Problems Scores in 28 Cultures ( $N=56,636$ )





# ***CBCCL Competence Scales***

- **Activities**
- **Social**
- **School**
- **Total Competence**

# *Adaptive Scales for Ages 18-59*

- **Purpose: To assess strengths and needs for help in major areas of adaptive functioning**
- **Scales**
  - **Friends**
  - **Spouse or partner (if relevant)**
  - **Family**
  - **Job (if relevant)**
  - **Education (if relevant)**
- **Composite: Mean of Adaptive Scales**



# Server

Transmit  
Forms

Transmit  
Forms

Transmit  
Data

Transmit  
Data

YOUR PC

REMOTE PC



*E-mail Scored Profiles*

# Web-Link

# *Empirically Based Syndromes for Ages 18-59*

- ‡ **Anxious/Depressed**
- ‡ **Withdrawn**
- ‡ **Somatic Complaints**
- ‡ **Thought Problems**
- ‡ **Attention Problems**
- ‡ **Aggressive Behavior**
- ‡ **Rule-Breaking Behavior**
- ‡ **Intrusive**

# *Empirically Based Syndromes for Ages 60-90+*

- **Anxious/Depressed**
- **Worries**
- **Somatic Complaints**
- **Functional Impairment**
- **Memory/Cognition Problems**
- **Thought Problems**
- **Irritable/Disinhibited**

# *Summary*

- **Assessment of psychopathology & adaptive functioning faces multiple challenges**
- **Empirically based instruments provide top-down, bottom-up, multi-informant, & multi-cultural solutions**



# *Extensive Research Base*

- **25 years of ASEBA research**
- **>5,000 published studies**
- **ASEBA forms widely used in:**
  - **epidemiological studies**
  - **longitudinal studies**
  - **cross-cultural studies**
  - **therapy efficacy studies**
  - **studies of medical conditions**
  - **studies of parental & family factors**
  - **secular trend studies**