

## History and Design of the SCL-90-R

Leonard Derogatis, PhD

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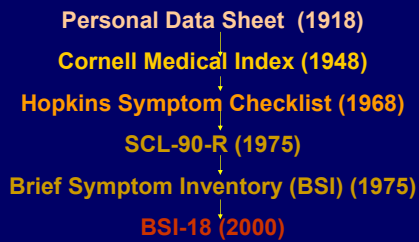
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### Brief History of the SCL-90-R / BSI




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### Dimensional Structures

• Dimension	HSCL	SCL-90R	BSI	BSI-18
• Somatization	√	√	√	√
• Obsessive Comp.	√	√	√	-
• Interpers. Sensit.	√	√	√	√
• Depression	√	√	√	√
• Anxiety	√	√	√	√
• Hostility	-	√	√	-
• Phobic Anxiety	-	√	√	-
• Paranoid Ideat.	-	√	√	-
• Psychoticism	-	√	√	-
• Global Score (GSI)	√	√	√	√

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Dimension Definition  
**Somatization**

**Somatization:**  
Reflects distress arising from perceptions of bodily dysfunction. Complaints focus on cardiovascular, gastrointestinal, respiratory, neurological and other systems with strong autonomic mediation. Pain and discomfort of the gross musculature and other somatic equivalents of anxiety are also possible components of Somatization.

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Dimension Definition  
**Obsessive-Compulsive**

**Obsessive-Compulsive:**  
This measure focuses on thoughts, impulses and actions that are experienced as irresistible and unremitting and that are of an ego-alien or unwanted nature. Behavior and experiences reflecting a more general cognitive performance deficit also contribute to this measure.

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Dimension Definition  
**Interpersonal Sensitivity**

**Interpersonal Sensitivity:**  
The Interpersonal Sensitivity measure focuses on feelings of inadequacy and inferiority, particularly in comparison to other people. Self-deprecation, self-doubt and marked discomfort during interpersonal interactions are characteristic manifestations of this syndrome. Self-consciousness and negative expectations about interpersonal relations are hallmark features of I-S.

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Dimension Definition  
Depression

**Depression:**  
The Depression dimension reflects a representative range of the manifestations of clinical depression. It comprises symptoms of dysphoric mood and affect, signs of withdrawal of life interest, lack of motivation and loss of vital energy. Feelings of hopelessness, thoughts of suicide and other cognitive and somatic correlates of clinical depression are included in this measure.

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Dimension Definition  
Anxiety

**Anxiety:**  
General signs of anxiety such as nervousness, tension and trembling are included in the domain definition, as are feelings of apprehension, dread, terror and panic. In addition, some somatic manifestations of anxiety are also reflected in the domain.

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Dimension Definition  
Hostility

**Hostility:**  
The symptoms of the Hostility dimension include thoughts, feelings, and actions that are characteristic of the negative affect state of anger. Items reflect all three modalities of expression, and demonstrate qualities such as resentment, irritability, aggression and rage.

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Dimension Definition

Phobic Anxiety

**Phobic Anxiety:**

The Phobic Anxiety dimension defines the syndrome as a persistent fear response to a specific person, place, object or situation, which is disproportionate to any actual threat, and leads to avoidance or escape behavior. Items overlap highly with DSM-IV Agoraphobia syndrome.

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Dimension Definition

Paranoid Ideation

**Paranoid Ideation:**

The Paranoid Ideation dimension represents paranoid behavior as fundamentally a disordered mode of thinking. The items comprising P-I reflect the cardinal clinical features of projective thought, hostility, grandiosity, suspiciousness, centrality, and fear of loss of autonomy.

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Dimension Definition

Psychoticism

**Psychoticism:**

Psychoticism was designed to represent the construct as a continuous dimension, from a withdrawn isolated lifestyle at one pole to demonstrable psychotic behavior at the other. The measure attempts to reflect a graduated continuum from mild social alienation to first-rank symptoms of psychosis.

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## Importance of Norms

- Essential for Standardized Reporting
- Greatly facilitate interpretation and communication
- Greatly facilitate the evaluation of clinical change
- Enable within-profile as well as between-profile comparisons
- Enable comparisons across gender or age through specifically-keyed norm groups.

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## Norms via Area T-Scores

- Area T-scores represent standardized normalizing transformations that reflect the area (proportion) under the normal curve associated with that score.
- This enables the assignment of an accurate percentile equivalent score which facilitates interpretation both within and across profiles.
- The use of a standardized score like the area-T enables the development of gender-keyed norms and the possibility of meaningful comparisons between men and women.

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## Normative Samples for the Checklist Series

- Community population norms-SCL-90R, BSI,BSI-18
- Psychiatric Outpatient norms- SCL-90R, BSI
- Psychiatric Inpatient norms – SCL-90R, BSI
- Adolescent non-patient norms – SCL-90R, BSI
- Oncology Patient norm – BSI-18

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## SCL-90-R Configural Items

- #19 Poor appetite
- #44 Trouble falling asleep
- #59 Thoughts of death or dying
- #60 Overeating
- #64 Awakening in the early morning
- #66 Sleep that is restless or disturbed
- #89 Feelings of guilt

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## Tri-Level Interpretive Model

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## Tri-Level Interpretive Model

- **Global Score (s)**- Provide summary information on overall respondent distress level in a single numerical value.
- **Dimension Score (s)**- Provide information on specific areas of psychological distress and deliver a relative profile of the respondent's current distress experience.
- **Item Score (s)**- Provide details concerning the specific manifest symptoms that are currently distressing the respondent.

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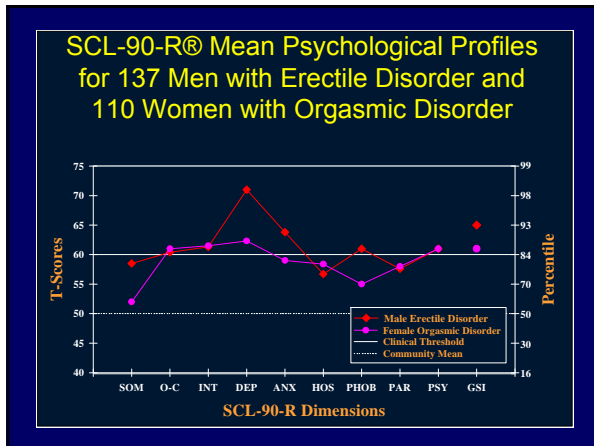
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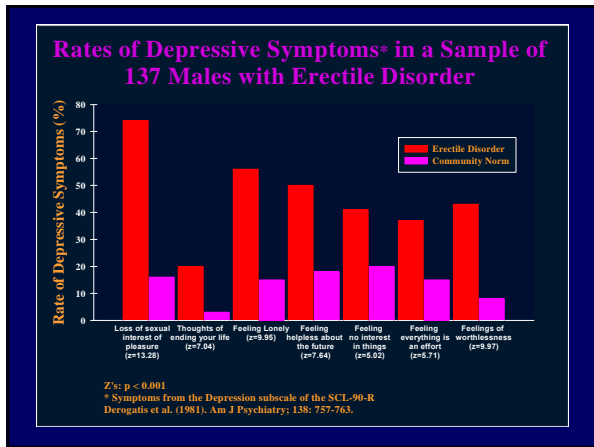
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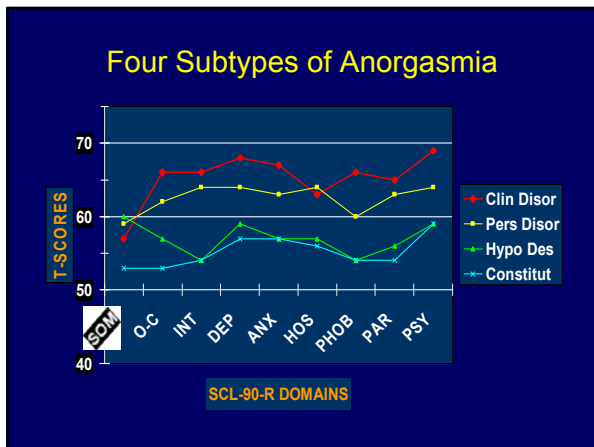
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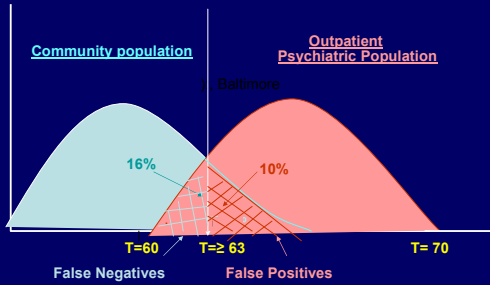
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## Generic Caseness Criterion for the SCL-90-R



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## Common Comorbidities and The SCL-90-R

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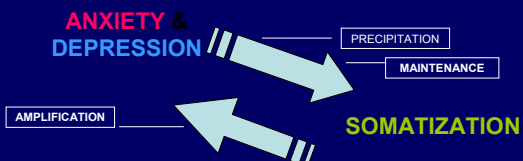
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## Model for Relationship Between Anxiety, Depression & Somatization



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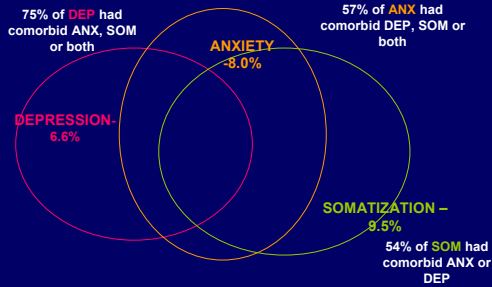
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## Depression, Anxiety and Somatization Syndrome Overlap in Primary Care



Lowe, B. et al, Psychiatry and Primary Care- 2008

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## SCL-90-R Domain Score Convergence with DSM-IV Dx in Disorders with High Comorbidity

	SOM	DEP	ANX	PHOB	O - C
Somat.D	+++	++	++	+	+
Depress.	+	+++	+	+	++
GAD	++	++	+++	++	+
Panic Dis.	++	++	+++	+++	+
OCD		+	+	+	+++

[+ = T60-T64; ++ = T65-T69; +++ = T≥70]

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## SCL-90-R Somatization Score T-Value of ≥ 69 Predicts:

- Distressed high utilizers of health care
- High comorbidity with Mood (86%) & Anxiety Disorders (43%) lifetime prevalence
- 5-fold ↑ in Dx of panic disorder 9 years post eval. for chest pain
- High psychiatric morbidity in Environmental Illness pts. ie, Somatiform, Anxiety & Dep.
- Katon, W. et al, Gen. Hosp. Psychiat. 1990.
- Rieff, W. et al, Psychosomatics, 1995.
- Bringager, C.B. et al, Gen. Hosp. Psychiat. 2008.
- Bornschein, S. et al, Psychosomatic Med. 2006

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## SCL-90-R Predictive Validity

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## Validation of the SCL-90-R via the Present State Examination (PSE)

**Diabetic sample (n=102)**

**Case finding w ROC (PSE)**

AUC = .90  
Sensitivity =88%  
Specificity =80%

**Logistic Regression w/GSI**

Sensitivity= 72%  
Specificity= 87%

**Subscale Convergence**

12 of 14 subscale matches

**Bulimic sample (n=71)**

**Case Finding vs PSE**

AUC=.90  
Sensitivity =76%  
Specificity =92%

**Logistic Regression w GSI**

Sensitivity= 77%  
Specificity= 91%

**Subscale Convergence**

11 of 14 subscale matches

Peveler & Fairburn, Psychol. Med. (1990)

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## SCL-90-R Residual Gain Scores Correlated with Retrospective Outcomes Evaluations In Group Dynamic Psychotherapy

SCL-90R	Pt. Retro Eval	SCL-90-R	Ther Retro Eval
• Somatization	.36***	• Somatization	.33***
• Obsessive Comp.	.42***	• Obsessive Comp.	.34***
• Interpers. Sensitiv.	.48***	• Interpers. Sensitiv.	.39***
• Depression	.65***	• Depression	.47***
• Anxiety	.53***	• Anxiety	.39***
• Hostility	.39***	• Hostility	.24***
• Phobic Anxiety	.33***	• Phobic Anxiety	.28***
• Paranoid Ideation	.31***	• Paranoid Ideation	.23**
• Psychoticism	.50***	• Psychoticism	.28***
• GSI	.57***	• GSI	.42***
• Total Regress Variat.= 44%		• Total Regress Variat.= 25%	

Jensen, et al., Scand. J. Psychol. (2008)

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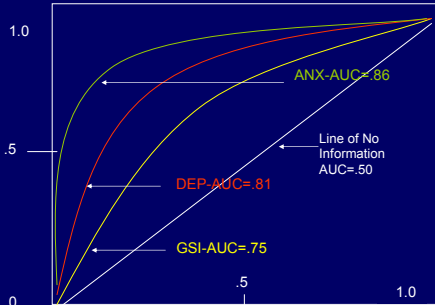
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### ROC Analysis of SCL-90-R Anxiety, Depression and GSI In Identifying Cases in Primary Care



Schmitz, et.al., 1999

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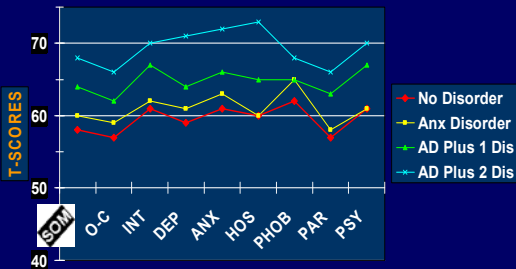
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### Impact of Comorbidity on Adolescents With Anxiety Disorders



SCL-90-R DOMAINS

Essau, Dep & Anx, 2003

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### Correlation of SCL-90-R Scores with Age at Initial Dx of CHD with and without Patients with MDD

With MDD Patients (n= 77)			W/O MDD Patients ( n=54)		
Dimension	r	p	Dimension	r	p
Somatization	-.03	.41	Somatization	-.04	.38
Obsess-Comp	-.13	.12	Obsess-Comp	-.13	.17
Interp Sensitiv	-.25	.02	Interp Sensitiv	-.27	.03
Depression	-.22	.03	Depression	-.25	.03
Anxiety	-.27	.01	Anxiety	-.24	.04
Hostility	-.08	.25	Hostility	-.05	.37
Phobic Anxiety	-.03	.33	Phobic Anxiety	-.06	.35
Paranoid Ideat	-.19	.05	Paranoid Ideat	-.13	.17
Psychoticism	-.24	.02	Psychoticism	-.23	.05

Ketterer, et.al., Psychosomat. (2006)

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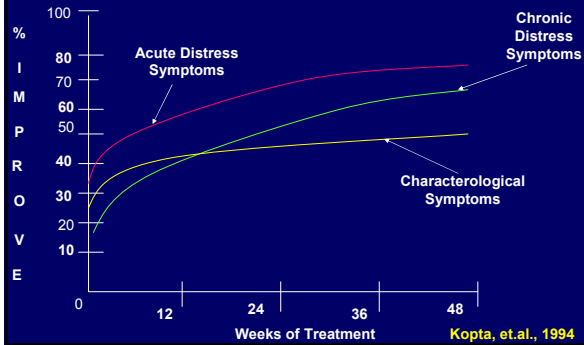
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### Symptomatic Recovery in Psychotherapy as a Function of Dose and Symptom Class (SCL-90-R)




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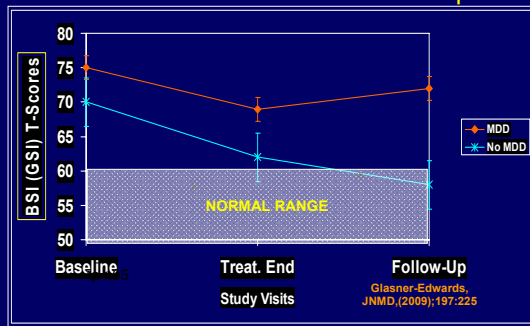
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### BSI GSI T-Scores of Methamphetamine Addicts With and Without Baseline MDD at 3 Years Post-Treatment Follow-Up




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### BSI Anxiety Prediction of In-Hospital Complications in Acute Myocardial Infarction Patients via Logistic Regression (N= 476)

PREDICTOR	ODDS RATIO	BETA	P-VALUE
AGE	0.99	-0.01	.310
SEX	1.25	0.22	.369
HYPERTENS.	1.32	0.28	.236
DIABETES	0.87	-0.13	.648
PREV. MI	0.55	0.60	.028
SMOKING	0.62	-0.47	.062
ANXIOLYTIC	1.57	0.45	.040
ADMIS. DBP	1.00	.01	.990
ADMIS. SBP	1.02	.02	.982
PEAK PAIN	1.07	.07	.117
BSI ANXIETY	1.79	.59	.001

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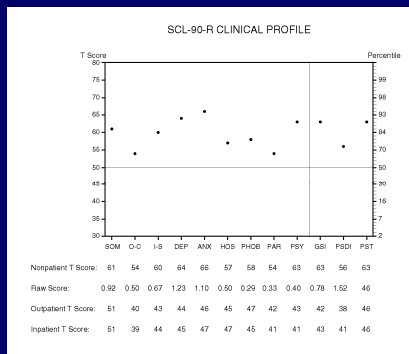
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## SCL-90-R Clinical Profile




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## Scoring the SCL-90-R, BSI, & BSI 18

- Q Local™ Scoring and Reporting Software
  - On-screen scoring and report viewing
  - Progress Reports to track patient’s results over time (free of charge)
- Mail-in Scoring Services
- Hand-Scoring Materials




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## Reporting

- Profile Report (SCL-90-R, BSI & BSI 18)
  - Presents a graphic profile of raw and normalized T scores for each of the nine symptom scales and three global indices
  - Useful for monitoring change over time if patient is continually assessed
- Interpretive Report (SCL-90-R and BSI only)
  - Includes Profile Report
  - Narrative overview of symptoms
  - Pathognomonic Signs
  - Symptoms of Note
- Progress Report (Q Local)

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## More information / Ordering

- Sample Reports can be found at:
  - <http://psychcorp.pearsonassessments.com/pai/ca/research/publications/samplerpts/reslist.htm>
- To Order
  - 800-627-7271 (7 AM – 6 PM Central Time)
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## Questions?

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## Thank You!

For future webinars please visit:  
<http://psychcorp.pearsonassessments.com/pai/ca/training/webinars/Webinars.htm>

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