

# Scoring the Convergent System Risk Scores

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**Patient Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Referring Physician:** \_\_\_\_\_

**Proposed Treatment:** \_\_\_\_\_

## Risk Score Findings

	Raw Score	Patient Percentile Rank	Community Percentile Rank (optional)
Exclusionary Risk			
Cautionary Risk			

## Clinical Findings

## Conclusions

## Instructions

1. Beginning with the exclusionary score worksheet, review the BHI 2 scale profile. Note any relevant scale scores > 72 on the worksheet. Similarly, review the content scores; then the critical item scores and demographics and record positive findings. Score the risk factors 1 or 0, and then calculate the total raw score. Remember that each individual exclusionary risk was seen in only 1% of the BHI 2 normative sample.
2. Record clinical findings resulting from the interview or chart review. For example, a defensive patient may deny substance abuse on the BHI 2, but a chart review could reveal a positive drug test. Also note that the risk score criteria are psychometric scores, not diagnoses. Diagnostic information can be noted in the clinical findings.
3. Repeat the above using the cautionary risk score criteria. Remember that each individual cautionary risk was seen in only 16% of the BHI 2 normative sample (one standard deviation above the mean).
4. Using the tables, identify the exclusionary and cautionary risk score percentile ranks and record them above. In most patients, the exclusionary risk raw score will be 0.
5. To interpret the meaning and limitations of these scores, review the following document:  
  
Bruns, D., & Disorbio, J. M. (2009). Assessment of Biopsychosocial Risk Factors For Medical Treatment: A Collaborative Approach. *Journal of Clinical Psychology in Medical Settings*, 16(2), 127-147.  
<http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s10880-009-9148-9>
6. Additional information can be gained by also calculating the community percentile rank. To understand the interpretation of double-normed scales, review the following document:  
  
<http://www.healthpsych.com/bhi/doublenorm.html>
7. Caveat: The selection of patients for medical treatment is a complex clinical decision-making process. Ultimately, the decision about whether or not to perform medical treatments should be made by the physician, with consideration for the assessment of psychosocial risks performed by appropriately-trained mental health professionals, as appropriate. While these risk scores were derived from a review of the literature, and convergence of evidence and opinion about important factors to assess, this specific scoring algorithm has only been empirically tested in one study. This risk assessment method can serve as one means of assessing biopsychosocial risk, which can inform treating professionals. However, the risk scores themselves are not intended to substitute for the clinical opinion of a trained professional.

## Exclusionary Risk Score Worksheet

Adapted from Bruns and Disorbio, 2009

Type of Risk	Exclusionary Factors	BHI 2 Sign	BHI 2 Risk (0 or 1)	Observations and Findings	Exam Risk
<b>Affective</b>	Active suicidal urges	Suicidal Ideation* = VH			
	Active homicidal urges	Violent Ideation* = VH			
	Severe depression	Depression > 72 or Vegetative Dep = VH			
	Severe anxiety (generalized, panic, PTSD, med. phobia/death fears, etc)	Anxiety > 72 or Autonomic Anxiety* = VH			
	Severe anger	Hostility > 72			
	Mood elevation/mania				
<b>Other Psychological Risks</b>	Psychosis/Delusions/Hallucinations	Psychosis** = MP/BP			
	Active substance abuse	Substance Abuse > 72			
	Somatization	Somatic Complaints > 72			
	Pain focused somatoform disorder	Pain Complaints > 72			
	Severe personality disorder	Borderline or Maladjust > 72			
	Extremely poor coping	Symptom Dep > 72 or Perseverance < 30			
Severe social isolation, family dysfunction, or current severe abuse	Family Dys or Survivor > 72				
<b>Social</b>	Litigation for pain and suffering, and pain-related treatment	Litigation*** and (Entitlement* or Comp Focus* = VH)			
	Intense Dr./patient conflict	Doctor Dissatisfaction > 72			
<b>Biological</b>	<b>Pain</b>	Unusual pain reports	Number body areas with pain = 10		
		Dysfunctional pain cognitions	Pain Fixation* = VH		
		Extreme, invariant pain	Highest Pain =10 with Pain Range =0		
		Extreme pain sensitivity	Pain Tolerance Index = - 10		
	<b>Exam</b>	Medically impossible symptoms			
		Gross inconsistencies between objective findings, symptom reports, and patient behavior			
		Falsifying information, malingering, or factitious symptoms			
		Inability to cooperate with treatment due to cognitive or other problems			
	<b>History</b>	Same treatment failed multiple times in past			
		Abuse of prescription medications, violation of opioid contracts			
		History of gross noncompliance			
	<b>Science</b>	Evidence that the proposed medical treatment would be injurious or ineffective given the circumstances			
<b>Exclusionary Risk Raw Score Total</b>					

\* Content Area; \*\* Critical Item; \*\*\* Demographic variable; A=Agree; SA=Strongly Agree; BP =Big Problem; MP = Moderate Problem; VH =Very High

## Cautionary Risk Score Worksheet

*Adapted from Bruns and Disorbio, 2009*

Type of Risk	Cautionary Factors	BHI 2 Sign	BHI 2 Risk (0 or 1)	Observations and Findings	Exam Risk
<b>Affective</b>	Depression	Depression > 59 or Vegetative Depression*= H/VH			
	Anger	Hostility > 59			
	Anxiety (fears, phobias, PTSD, etc)	Anxiety > 59 or Autonomic Anxiety * = H/VH			
<b>Psychological Vulnerability</b>	Hx substance abuse	Substance Abuse > 59			
	Personality disorder	Borderline or Chronic Maladjustment > 59			
	Cognitive disorder or low education	Cognitive Dysfunction* = H/VH, Years Ed < high school graduate ***			
	Poor coping	Symptom Dep > 59 or Perseverance< 30			
	Diffuse somatic complaints	Somatic Complaints > 59			
<b>Social</b>	Conflict with Physicians	Doctor Dissatisfaction > 59			
	Job dissatisfaction	Job Dissatisfaction > 59			
	Family dysfunction	Family Dysfunction > 59			
	Hx abuse	Survivor of Violence > 59			
	Worker compensation	Work Comp**			
	Compensation focus	Comp Focus* or Entitlement* = H/VH			
	Represented by attorney	Has attorney**			
<b>Biological</b>	<b>Pain &amp; Disability</b>	Extreme pain	Peak Pain = 10		
		Dysfunct. Pain Cognitions	Pain Fixation* = H/VH		
		Pain sensitivity	Pain Tolerance Index < -7		
		Pain invariance	Pain Range = 0		
		Diffuse pain	Pain Complaints > 59		
		Pain > 2 years	Demographic		
		Unexplained disability	Functional Complaints > 59		
	<b>Exam</b>	Degree to which patient does not meet medical criteria for procedure			
		No medical necessity of procedure to preserve life or function			
		Destructive/ high risk elective medical procedure			
		Procedure specific risks: Smoking, diet, attitude towards implant, etc			
	<b>History</b>	Similar procedure failed previously			
		No response to any treatment			
		History of nonadherence to conservative care			
		No objective medical findings			
	<b>Science</b>	Insufficient evidence that the proposed medical treatment would be effective			
	<b>Cautionary Risk Raw Score Total</b>				

\* Content Area; \*\* Critical Item; \*\*\* Demographic variable; A=Agree; SA=Strongly Agree; BP =Big Problem; MP = Moderate Problem; VH =Very High

# Norms And Reliability of Risk Scores for Patients and Community Members

Adapted from Bruns and Disorbio, 2009

<i>Statistic</i>	<i>BHI 2</i>			
	<i>Cautionary Risk Scores</i>		<i>Exclusionary Risk Scores</i>	
	Community	Patient	Community	Patient
N	699	511	684	485
Mean	2.48	4.84	.35	.88
Median	1	3	0	0
Mode	1	2	0	0
Standard Deviation	2.94	4.18	.965	1.72
Test-retest Reliability (N=82)	-	.89	-	.91
Risk score range	0-16	0-18	0-8	0-10

<b>Percentile Ranks Using Patient Norms</b>						
	<b>BHI Cautionary Risk Factors</b>			<b>BHI Exclusionary Risk Factors</b>		
Raw Risk Score	Observed Frequency	Percent With This Response	Percentile Rank	Observed Frequency	Percent With This Response	Percentile Rank
0	42	8.0	8.2	316	60.0	*
1	80	15.2	23.9	67	12.7	79.0
2	81	15.4	39.7	36	6.8	86.4
3	54	10.2	50.3	24	4.6	91.3
4	37	7.0	57.5	10	1.9	93.4
5	44	8.3	66.1	10	1.9	95.5
6	23	4.4	70.6	10	1.9	97.5
7	24	4.6	75.3	3	.6	98.1
8	24	4.6	80.0	5	.9	99.2
9	20	3.8	84.0	2	.4	99.6
10	19	3.6	87.7	2	.4	100.0
11	11	2.1	89.8			
12	16	3.0	93.0			
13	15	2.8	95.9			
14	5	.9	96.9			
15	6	1.1	98.0			
16	5	.9	99.0			
17	4	.8	99.8			
18	1	.2	100.0			
Total	511	97.0		485	92.0	
Missing	16	3.0		42	8.0	
Grand Total	527	100.0		527	100.0	

\* Since all of the individual exclusionary risk factors are extreme and relatively rare, the distribution of the exclusionary risk score is highly skewed. Note that because the majority of patients have 0 exclusionary risks, a score of 0 corresponds with a percentile rank of 65%. This percentile rank is somewhat misleading though, as it is also the lowest possible percentile rank on this measure.

## Optional Percentile Ranks Using Community Norms

Raw Risk Score	Cautionary Risk Scores			BHI Exclusionary Risk Scores		
	Observed Frequency	Percent With This Response	Percentile Rank	Observed Frequency	Percent With This Response	Percentile Rank
0	166	22.9	23.7	551	76.0	80.6
1	209	28.8	53.6	74	10.2	91.4
2	88	12.1	66.2	24	3.3	94.9
3	69	9.5	76.1	18	2.5	97.5
4	40	5.5	81.8	6	.8	98.4
5	30	4.1	86.1	5	.7	99.1
6	26	3.6	89.8	3	.4	99.6
7	15	2.1	92.0	2	.3	99.9
8	15	2.1	94.1	1	.1	100.0
9	12	1.7	95.9			
10	12	1.7	97.6			
11	2	.3	97.9			
12	3	.4	98.3			
13	5	.7	99.0			
14	5	.7	99.7			
15	1	.1	99.9			
16	1	.1	100.0			
Total	699	96.4		684	94.3	
Missing	26	3.6		41	5.7	
Grand Total	725	100.0		725	100.0	