

**Colorado Division of Workers' Compensation  
 COMPREHENSIVE PSYCHOLOGICAL TESTING**

**Psychological Tests Commonly Used in the Assessment of Chronic Pain \***

TEST	TEST CHARACTERISTICS	STRENGTHS AND WEAKNESSES	LENGTH, SCORING OPTIONS & TEST TAKING TIME
<b>Comprehensive Inventories For Medical Patients</b>			
<p><b>BHI™ 2 (Battery for Health Improvement – 2<sup>nd</sup> edition )</b></p> <p><b>Pearson Assessments</b>  <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b>  <b>Scientific Review: JBG</b>  <b>Intended for: M</b>  <b>Research: <sup>1-40</sup></b>  <b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Depression, anxiety and hostility; violent and suicidal ideation; borderline, emotional dependency, chronic maladjustment, substance abuse, history of abuse, perseverance, conflicts with employer, family and physician, pain preoccupation, somatization, disability perceptions and others.</p> <p><u>Uses:</u> Useful for identifying affective, characterological, psychophysiological and social factors affecting pain and disability reports. Also useful for assessing patients referred for intensive treatment programs such as chronic pain, functional restoration, or work conditioning, for presurgical or pre-treatment risk assessment, for impairment determinations, or when there are indications that psychological factors are delaying the recovery process. Computerized progress tracking using serial administrations.</p> <p><u>Benefits:</u> When part of a comprehensive evaluation, can contribute substantially to the understanding of psychosocial factors underlying pain reports, perceived disability, somatic preoccupation, and help to design interventions. Serial administrations can track changes in a broad range of variables during the course of treatment, and assess outcome.</p>	<p><u>Strengths:</u> Well-developed theoretical basis tied to a paradigm of delayed recovery in medical patients, and to assessing primary (“red flag”) and secondary (“yellow flag”) risk factors. Has nationally normed 0-10 pain profiling. Two norms groups are available, based on national rehabilitation patient and community samples, both of which are stratified to match US census data. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration and progress tracking. Computerized reports also refer to a chronic pain subsample, five diagnostic reference groups (head, neck, upper extremity, back and lower extremity pain groups), and to groups of patients asked to fake good and fake bad.</p> <p><u>Weaknesses:</u> Assessment of psychosis is via critical items only, no assessment of elevated mood. Somewhat less able to assess coping styles of relatively normal individuals with medical conditions. Does not assess health habits.</p>	<p>217 items, 18 scales including 3 validity measures, 40 content-based subscales, 25 critical items, 25-35 minutes, computerized scoring and report.</p> <p>6<sup>th</sup> grade reading level</p>

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<p><b>MBMD™ (Millon Behavioral Medical Diagnostic)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: M</b> <b>Research: <sup>41-50</sup></b> <b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Provides information on coping styles (introversive, inhibited, dejected, cooperative, sociable, etc.), health habits (smoking, drinking, eating, etc.), psychiatric indications (anxiety, depression, etc.), stress moderators (Illness Apprehension vs. Illness Tolerance, etc.), treatment prognostics (Interventional Fragility vs. Interventional Resilience, Medication Abuse vs. Medication Competence, etc.) and more.</p> <p><u>Uses:</u> Useful for assessment of basic personality types and how they cope with illness. Also useful for patients being referred for intensive treatment programs such as chronic pain, functional restoration, or work conditioning, for presurgical risk assessment, for impairment determinations, or when there are strong indications that psychological factors are delaying the recovery process.</p> <p><u>Benefits:</u> When used as a part of a comprehensive evaluation, can contribute substantially to the understanding of psychosocial factors affecting medical patients. Understanding risk factors and patient personality type can help to optimize treatment protocols for a particular patient.</p>	<p><u>Strengths:</u> Assesses a number of factors relevant to medical patients, with a well-developed theoretical basis pertaining to coping strategies. Designed to assess how a patient who is more or less psychologically normal may react to or cope with a serious medical condition. Normed on three different groups of medical patients, including a group of patients with chronic pain. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration.</p> <p><u>Weaknesses:</u> Test focus is assessing coping in psychologically normal patients, and is less able to identify psychopathology. No community norms. Has pain norms, but the chronic pain report uses general medical patient norms instead. High level of item overlap on scales, uses base rate scores which is an unfamiliar metric to most. No published research on patients with chronic pain.</p>	<p>165 Items, 38 scales, 3 validity measures, 20-30 minutes, computerized scoring</p> <p>6<sup>th</sup> grade reading level</p>

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<p><b>Comprehensive Psychological Inventories</b></p> <p>These tests are designed for detecting various psychiatric syndromes, but in general are more prone to false positive findings when administered to medical patients.</p>			
<p><b>MCMI-III™ (Millon Clinical Multiaxial Inventory, 3<sup>rd</sup> edition)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: P</b> <b>Research: <sup>51-59</sup></b> <b>Restrictions: Psy, MD</b></p>	<p><u>What it Measures:</u> Has scales based on DSM-IV diagnostic criteria for affective disorders, personality disorders, psychotic disorders, somatization and others.</p> <p><u>Uses:</u> Useful for patients undergoing a more comprehensive psychological assessment. Especially useful for the differential diagnosis of personality disorders. Designed for the assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using.</p> <p><u>Benefits:</u> When used as a part of a part of a comprehensive evaluation, can screen for a broad range of DSM-IV diagnoses.</p>	<p><u>Strengths:</u> Strong research and theoretical base, scales are keyed to DSM-IV diagnostic criteria. Strength is the differential diagnosis of personality disorders. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration.</p> <p><u>Weaknesses:</u> Designed for and normed on psychiatric patients, not pain patients. May over-pathologize medical patients. Unusually high item overlap results in highly interrelated scales, uses base rate scores which cannot generate percentile ranks. Scales will be less relevant when DSM-5 is published in 2013.</p>	<p>175 items, 25 scales, 3 validity measures, critical items, 25-30 minutes, computerized scoring</p> <p>8<sup>th</sup> grade reading level</p>
<p><b>MMPI-2™ (Minnesota Multiphasic Personality Inventory- 2<sup>nd</sup> edition™)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: P</b> <b>Research: <sup>60-115</sup></b> <b>Restrictions: Psy, MD</b></p>	<p><u>What it Measures:</u> Original scale constructs, such as hysteria and psychesthesia are archaic but continue to be useful. Newer content scales include depression, anxiety, health concerns, bizarre mentation, social discomfort, low self-esteem and about 100 others.</p> <p><u>Uses:</u> Useful for patients undergoing a more comprehensive psychological assessment. Designed for assessment of psychiatric patients, not pain patients, but commonly used in chronic pain and presurgical assessment. Especially useful for the assessment of exaggerating or minimizing</p>	<p><u>Strengths:</u> Extremely strong research basis, with both strengths and weaknesses in pain assessment being well documented. Strength is the assessment of faking or biased responding. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration.</p> <p><u>Weaknesses:</u> Originally designed for assessing psychiatric patients, not medical patients. Scales may over-pathologize pain or rehabilitation patients. Normed on community sample but</p>	<p>567 items, 100+ scales and indices, critical items, 60-90 Minutes, computerized scoring and report, hand scoring.</p> <p>6<sup>th</sup> grade reading level</p>

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	<p>symptoms.</p> <p><u>Benefits:</u> When used as a part of a part of a comprehensive evaluation, measures a number of factors that have been associated with poor treatment outcome.</p>	<p>contains some chronic pain data in the interpretive report. Length can be prohibitive, full computerized report is complicated, yet many pain patients receive similar profiles. It takes considerable experience to interpret correctly.</p>	
<p><b>MMPI-2-RF™ (Minnesota Multiphasic Personality Inventory- 2<sup>nd</sup> edition- Restructured Form™)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: P</b> <b>Research: <sup>116-135</sup></b> <b>Restrictions: Psy, MD</b></p>	<p><u>What it Measures:</u> The MMPI-2-RF has been revised so extensively that it is virtually a new test. While this radical revision addresses many of the psychometric weaknesses of its predecessor, some studies concluded that it is less capable of assessing chronic pain or somatoform disorders,<sup>72,73</sup> while another study found the two tests to be roughly equivalent in this regard.<sup>49</sup> Patients with chronic pain may be substantially less likely to appear to have psychopathology on the MMPI-2-RF as opposed to the MMPI-2.</p> <p><u>Uses:</u> Useful for patients undergoing a more comprehensive psychological assessment. Designed for assessment of psychiatric patients, not pain patients. Useful for the assessment of exaggerating or minimizing symptoms.</p> <p><u>Benefits:</u> When used as a part of a part of a comprehensive evaluation, can identify a wide variety of problematic psychiatric conditions and personality types.</p>	<p><u>Strengths:</u> Relatively new test, which is the subject of many research studies. Psychometrically more sound than the original MMPI-2. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration.</p> <p><u>Weaknesses:</u> One study found that the profile types of the MMPI-2-RF and the original MMPI-2 agree only 14.6% of the time.<sup>72</sup> Due to the substantial differences between these two tests, research on the original MMPI-2 scales does not directly apply to this test. Designed for psychiatric patients, as opposed to medical patients, and is normed on a community sample.</p>	<p>338 items, 50 scales including 8 validity scales, critical items, 5<sup>th</sup> grade reading level 45-50 minutes.</p>

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<p><b>PAI™ (Personality Assessment Inventory)</b></p> <p><b>PAR</b> <a href="http://www.parinc.com">www.parinc.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: P</b> <b>Research: <sup>136-142</sup></b> <b>Restrictions: Psy, MD</b></p>	<p><u>What it Measures:</u> A good measure of general psychopathology. Measures depression, anxiety; somatic complaints, stress, alcohol and drug use reports, mania, paranoia, schizophrenia, borderline, antisocial and suicidal ideation and more than 30 others.</p> <p><u>Uses:</u> Useful for patients undergoing a more comprehensive psychological assessment. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using.</p> <p><u>Benefits:</u> When used as a part of a part of a comprehensive evaluation, can contribute substantially to the identification of a wide variety of risk factors that could potentially affect the medical patient. .</p>	<p><u>Strengths:</u> Brief 5-minute screen can be administered first to see if the remainder of the test should be administered. English and Spanish versions available. Standardized audio tape administration for persons with literacy or reading problems, computerized administration available. Three norm groups available (community, psychiatric and college student).</p> <p><u>Weaknesses:</u> Designed for psychiatric patients, not pain or rehab patients. Does not assess factors specific to pain treatment.</p>	<p>340 items, 22 scales including 4 validity scales, critical items, 50 minutes</p> <p>4<sup>th</sup> grade reading level</p>

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<b>Brief Multidimensional Measures for Medical Patients</b>			
<p><b>BBHI™ 2 (Brief Battery for Health Improvement – 2<sup>nd</sup> edition)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Intended for: M</b> <b>Research: <sup>24, 30, 143-145</sup></b> <b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Pain, functioning, somatization, depression, anxiety, and defensiveness.</p> <p><u>Uses:</u> Brief measure of risk factors for delayed recovery, useful as a screen or as one test in a more comprehensive evaluation. Designed for computerized progress tracking and outcomes research using serial administrations.</p> <p><u>Benefits:</u> Can identify patients complaining of depression and anxiety, and identify patients prone to somatization, pain magnification and self-perception of disability. Can compare the level of factors above to other pain patients and community members. Serial administrations can track changes in measured variables during the course of treatment, and assess outcome. Options include administration by handheld electronic device.</p>	<p><u>Strengths:</u> Has a nationally normed 0-10 pain scale. Two norms groups are available, based on national rehabilitation patient and community samples, both of which are stratified to match US census data. English and Spanish versions. Standardized audio tape administration for persons with literacy or reading problems, computerized progress tracking, on line administration by computer or handheld electronic device. Computerized report compares patient to a community and patient samples, and to a chronic pain subsample, fake good and fake bad groups, and five diagnostic reference groups (head, neck, upper extremity, back and lower extremity pain groups). Can be used as a brief outcome by itself or in conjunction with the BHI-2.</p> <p><u>Weaknesses:</u> No measures of characterological or psychosocial factors, more complex to interpret than other brief measures.</p>	<p>63 items, 6 scales, 15 critical items, 1 validity measure, 5-8 minutes computerized scoring and report.</p> <p>5<sup>th</sup> grade reading level</p>
<p><b>DRAM (Distress and Risk Assessment Method)</b></p> <p><b>Unpublished</b></p> <p><b>Standardization: NS</b> <b>Scientific Review: J</b> <b>Research: <sup>146, 147</sup></b> <b>Intended for: M</b> <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> The DRAM is composed of two other tests, the Modified Zung Depression Index and the Modified Somatic Perception Questionnaire. Its two scales assess depression and somatic symptoms of anxiety.</p> <p><u>Uses:</u> Brief measure of risk factors commonly associated with chronic pain, useful as a screen or as one test in a more comprehensive evaluation. Can identify patients in need of treatment for depression and/or anxiety, and who may be at risk for delayed</p>	<p><u>Strengths:</u> The modified ZUNG Depression Index and the Modified Somatic Perception Questionnaire make up the DRAM (Distress and Risk Assessment Method). The Zung is a well-researched measure of depression. (See Zung Depression Inventory below).</p> <p><u>Weaknesses:</u> Limited to assessment of depression and anxiety, and vulnerable to false positive findings. The use of a modified version of the Zung may make prior research</p>	<p>40 Items, 2 scales, 5 minutes, no validity measures, hand scoring, computerized scoring available</p>

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	<p>recovery.</p> <p><u>Benefits:</u> Can identify patients complaining of depression and anxiety, and at risk of delayed recovery. Options include administration by handheld electronic device.</p>	<p>inapplicable. Results classification system obscures the nature of the conditions identified (e.g. a patient with elevated depression and anxiety is classified as “distressed somatic”).</p>	
<p><b>MPI (Multidimensional Pain Inventory)</b></p> <p><b>Published by Authors</b></p> <p><b>Standardization: PS</b> <b>Scientific Review: JG</b> <b>Research: 77, 148-185</b> <b>Intended for: M</b> <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Interference, support, pain severity, life-control, affective distress, response of significant other to pain, and self-perception of disability at home, work, social situations and other ADLs.</p> <p><u>Uses:</u> Moderate length instrument that is especially useful in assessing the spouse/ significant other’s reaction to the patient’s condition, as well as a broad range of disability perceptions. Could be used with serial administrations to track progress in treatment for affective distress, pain, and function.</p> <p><u>Benefits:</u> Can identify patients with high levels of disability perceptions, affective distress, or those prone to pain magnification. Serial administrations can track changes in measured variables during the course of treatment.</p>	<p><u>Strengths:</u> Provides an assessment of subjective pain, assesses individual differences among pain patients, 12 scales designed to measure the impact on a patient’s activities of daily living. Well-researched instrument.</p> <p><u>Weaknesses:</u> Partially standardized test with no test manual available, and software is not certified for accuracy. Less comprehensive than major measures of chronic pain, with no measures of faking. Some scales are extremely short, which negatively impacts reliability. Patient norms are not representative, no community norms available.</p>	<p>61 Items, 13 scales, 20 minutes, no validity measures, Computerized scoring available</p>
<p><b>P-3™ (Pain Patient Profile)</b></p> <p><b>Pearson Assessments</b> <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b></p>	<p><u>What it Measures:</u> Assesses depression, anxiety, and somatization.</p> <p><u>Uses:</u> Brief measure useful when assessing risk factors associated with disability, or as one test in a more comprehensive evaluation. Developed as a screen to measure psychological factors related to chronic pain conditions. Designed for computerized</p>	<p><u>Strengths:</u> Two norms groups are available, based on pain patient and community samples, computerized progress tracking. Standardized audio tape administration for persons with literacy or reading problems, computerized progress tracking, on line administration by computer or handheld electronic device. Computerized report compares patient to both</p>	<p>44 items, 3 scales, 12-15 minutes. Computerized scoring and report</p>

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<p><b>Scientific Review: JBG</b>  <b>Intended for: P</b>  <b>Research:</b> 173, 186-195  <b>Restrictions: H</b></p>	<p>progress tracking using serial administrations.</p> <p><u>Benefits:</u> Can identify patients needing treatment for depression and anxiety, as well as identify patients prone to somatization. Can compare the level of depression, anxiety and somatization to other pain patients and community members. Serial administrations can track changes in measured variables during the course of treatment.</p>	<p>community and chronic pain patient samples.</p> <p><u>Weaknesses:</u> Not comprehensive, somewhat lengthy administration time for a screen.</p>	
<p><b>PRIME-MD (Primary Care Evaluation for Mental Disorders)</b></p> <p><b>Pfizer</b></p> <p><b>Standardization: S</b>  <b>Scientific Review: J</b>  <b>Intended for: M</b>  <b>Research:</b> 196-226  <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Two assessment components consist of initial paper and pencil screen for patient, with follow-up structured interview by the physician. Assesses mood, anxiety, somatoform tendencies, alcohol and eating disorders.</p> <p><u>Uses:</u> Clinical method useful in assessing mental health conditions commonly seen in primary care.</p> <p><u>Benefits:</u> Able to screen primary care patients for commonly seen mental disorders.</p>	<p><u>Strengths:</u> Structured interview has good interjudge reliability. Mood, alcohol and eating disorder modules have good criterion validity. Interview allows for diagnosis of 18 disorders.</p> <p><u>Weaknesses:</u> Interview is very demanding of physician time. Approach is more of a clinical decision tree method as opposed to a psychometric assessment. Non-standardized scoring procedure.</p>	<p>26 items in five clinical modules plus structured interview, no validity measures.</p> <p>Average of 8 minutes or more of physician time for interview (can take up to 20 minutes of MD time)</p>
<p><b>PHQ (Patient Health Questionnaire)</b></p> <p><b>Pfizer</b></p> <p><b>Scientific Review: J</b>  <b>Intended for: M</b>  <b>Research:</b> 197, 203, 204, 206, 208, 211, 213, 227-233  <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> A self-administered version of the PRIME-MD. Assesses mood, anxiety, somatoform tendencies, alcohol and eating disorders.</p> <p><u>Uses:</u> Clinical method useful in assessing mental health conditions commonly seen in primary care.</p> <p><u>Benefits:</u> Able to screen primary care patients for commonly seen mental disorders.</p>	<p><u>Strengths:</u> Has diagnostic validity comparable to the PRIME-MD, although limited to 8 diagnoses. Four variations of this test can be administered, which expands clinical options. PHQ-9 and GAD-7 components especially useful.</p> <p><u>Weaknesses:</u> Decision tree method of measure shortens administration, but precludes many common psychometric methods, such as the development of norms. No assessments or norms for pain, and no validity measures.</p>	<p>82 items in five clinical modules, no validity measures, administration time unknown</p> <ul style="list-style-type: none"> <li>• Hand scoring only</li> </ul>



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<p><b>SF 36™ V2</b></p> <p><b>The Health Institute: New England Medical Center</b></p> <p><b>Standardization: S</b>  <b>Scientific Review: JBG</b>  <b>Research:</b> <sup>158,164,234-270</sup>  <b>Intended for: M</b>  <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> A survey of general health well being, and functional states.</p> <p><u>Uses:</u> Brief measure useful to assess patient perception of physical and emotional functioning, as an outcome measure, or as one test in a more comprehensive evaluation. Serial administrations could be used to track patient perceived functional changes.</p> <p><u>Benefits:</u> Assesses a broad spectrum of patient disability reports. Serial administrations could be used to track patient perceived functional changes during the course of treatment, and assess outcome.</p>	<p><u>Strengths:</u> Widely used outcome measure in research and practice, considerable research base. Note that the SF-36 v2 is standardized, whereas the original SF-36 is not.</p> <p><u>Weaknesses:</u> Uses non-standardized scoring procedure, that makes identifying high or low scores much more difficult. No norms for pain patients, no validity measures. Some scales based on only one or two items, and a single inadvertent response can lead to a positive finding.</p>	<p>36 items, 8 scales, mixed scoring format, no validity measures.          15 minutes</p>

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<p><b>Brief Multidimensional Measures for Psychiatric Patients</b>            These tests are designed for detecting various psychiatric syndromes, but in general are more prone to false positive findings when administered to medical patients.</p>			
<p><b>BSI® (Brief Symptom Inventory)</b></p> <p>Pearson Assessments  <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b>  <b>Scientific Review: JBG</b>  <b>Intended for: P</b>  <b>Research:</b> <sup>170,271-276</sup>  <b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Somatization, obsessive-compulsive disorder, depression, anxiety, phobic anxiety, hostility, paranoia, psychoticism, and interpersonal sensitivity.</p> <p><u>Uses:</u> When a shorter version of the SCL-90 is desired. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration. Designed for computerized progress tracking using serial administrations.</p> <p><u>Benefits:</u> Can identify patients needing treatment for depression and anxiety, as well as identify patients prone to somatization. Can compare the level of depression, anxiety and somatization to community members. Serial administrations could be used to track changes in measured variables during the course of treatment, and assess outcome.</p>	<p><u>Strengths:</u> A shorter version of the SCL-90. Strong reputation and research base, brief. English and Spanish versions. Standardized audio tape administration for persons with literacy or reading problems, computerized progress tracking, on line administration by computer or handheld electronic device.</p> <p><u>Weaknesses:</u> Designed for and normed on psychiatric patients, not pain patients, no measures of defensiveness or pain.</p>	<p>53 items, 12 scales, no validity measures, computerized scoring and report, hand scoring.            4– 7 minutes</p>
<p><b>BSI® 18 (Brief Symptom Inventory-18)</b></p> <p>Pearson Assessments  <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b>  <b>Scientific Review: JBG</b>  <b>Intended for: P</b>  <b>Research:</b> <sup>238,273,277</sup>  <b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Depression, anxiety, somatization.</p> <p><u>Uses:</u> Useful as a screen or as one test in a more comprehensive evaluation. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using. Designed for computerized progress tracking using serial administrations.</p> <p><u>Benefits:</u> Can identify patients needing treatment for depression and anxiety, as well as identify patients prone to somatization. Can compare the level of</p>	<p><u>Strengths:</u> A shorter version of the SCL-90. Strong reputation and research base, brief. English and Spanish versions. Standardized audio tape administration for persons with literacy or reading problems, computerized progress tracking, on line administration by computer or personal digital assistant.</p> <p><u>Weaknesses:</u> Designed for and normed on psychiatric patients, not pain patients, no measures of defensiveness or pain.</p>	<p>18 items, 3 scales, no validity measures, computerized scoring and report, hand scoring.            2-3 minutes</p>

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TEST	TEST CHARACTERISTICS	STRENGTHS AND WEAKNESSES	LENGTH, SCORING OPTIONS & TEST TAKING TIME
	depression, anxiety and somatization to community members. Serial administrations could be used to track patient perceived functional changes during the course of treatment, and assess outcome.		
<p><b>SCL-90-R® (Symptom Checklist –90 Revised)</b></p> <p><b>Pearson Assessments</b>  <a href="http://www.pearsonassessments.com">www.pearsonassessments.com</a></p> <p><b>Standardization: S</b>  <b>Scientific Review: JBG</b>  <b>Research: 62,85,104,138,278-290</b>  <b>Intended for: P</b></p> <p><b>Restrictions: H</b></p>	<p><u>What it Measures:</u> Somatization, obsessive-compulsive, depression, anxiety, phobias, hostility, paranoia, psychoticism, and interpersonal sensitivity.</p> <p><u>Uses:</u> Designed for assessment of psychiatric patients, not pain patients, which can bias results, which should be a consideration when using. Designed for computerized progress tracking using serial administrations.</p> <p><u>Benefits:</u> Can identify patients needing treatment for depression and anxiety, as well as identify patients prone to somatization. Can compare the level of depression, anxiety and somatization to community members. Serial administrations could be used to track changes in measured variables during the course of treatment, and assess outcome.</p>	<p><u>Strengths:</u> Strong research base, relatively brief instrument with computerized progress tracking. English and Spanish versions. Standardized audio tape administration for persons with literacy or reading problems, computerized progress tracking, on line administration by computer. Note that the SCL-90-R is standardized, whereas the original SCL-90 is not.</p> <p><u>Weaknesses:</u> Designed for and normed on psychiatric patients, not pain patients. Current norm base not appropriate for medical populations</p>	<p>90 items, 12 scales, no validity measures, computerized scoring and report, hand scoring.          15 minutes</p> <p>6<sup>th</sup> grade reading level</p>

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COMPREHENSIVE PSYCHOLOGICAL TESTING**

**Psychological Tests Commonly Used in the Assessment of Chronic Pain \***

TEST	TEST CHARACTERISTICS	STRENGTHS AND WEAKNESSES	LENGTH, SCORING OPTIONS & TEST TAKING TIME
<p><b>Brief Specialized Psychiatric Measures</b> These tests are designed for detecting various psychiatric syndromes, but in general are more prone to false positive findings when administered to medical patients.</p>			
<p><b>BDI ®-II (Beck Depression Inventory-2<sup>nd</sup> edition)</b></p> <p><b>The Psychological Corp.</b> <a href="http://www.psychcorp.com">www.psychcorp.com</a></p> <p><b>Standardization: S</b> <b>Scientific Review: JBG</b> <b>Research:</b> 96,162,170,275,291-312 <b>Intended for: P</b></p> <p><b>Restrictions: Psy, MD</b></p>	<p><u>What it Measures:</u> Depression</p> <p><u>Uses:</u> Intended as a brief measure of depression, useful as a screen or as one test in a more comprehensive evaluation. Serial administration may be used to assess changes in depression, or as an outcome measure. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using.</p> <p><u>Benefits:</u> Can identify patients needing referral for further assessment and treatment for depression. Repeated administrations can track progress in treatment for depression.</p>	<p><u>Strengths:</u> Well-known, well-researched, keyed to DSM-IV criteria, brief, appropriate for ages 13-80. English and Spanish versions.</p> <p><u>Weaknesses:</u> Limited to assessment of depression, easily faked. Scale is unable to identify a non-depressed state, and is thus very prone to false positive findings. Should not be used as a stand-alone measure, especially when secondary gain is present.</p>	<p>21 items, 1 scale, no validity measures. 5 minutes, hand scoring, computerized scoring and report.</p>
<p><b>CES-D (Center for Epidemiological Studies Depression Scale)</b></p> <p><b>Unpublished, public domain</b></p> <p><b>Standardization: N</b> <b>Scientific Review: J</b> <b>Research:</b> 291,313-322 <b>Intended for: P</b></p> <p><b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Depression</p> <p><u>Uses:</u> Intended as a brief measure of depression, useful as a screen or as one test in a more comprehensive evaluation. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using.</p> <p><u>Benefits:</u> Can identify patients needing referral for further assessment and treatment for depression. Repeated administrations can track progress in treatment for depression.</p>	<p><u>Strengths:</u> Well-known, well-researched, brief, has been translated into numerous languages.</p> <p><u>Weaknesses:</u> Limited to assessment of depression, easily faked. Psychometric characteristics are not well known, but well-established propensity for false positive findings. Should not be used as a stand-alone measure, especially when secondary gain is present. Public domain status has lead to widespread use of many modified or shortened forms of the test, which may not be equivalent.</p>	<p>20 items, 1 scale, no validity measures, 3 minutes, hand scoring,</p>

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**Psychological Tests Commonly Used in the Assessment of Chronic Pain \***

<b>TEST</b>	<b>TEST CHARACTERISTICS</b>	<b>STRENGTHS AND WEAKNESSES</b>	<b>LENGTH, SCORING OPTIONS &amp; TEST TAKING TIME</b>
<p><b>Zung Depression Inventory</b></p> <p><b>Glaxowellcome</b> <a href="http://www.glaxowellcome.com">www.glaxowellcome.com</a></p> <p><b>Standardization: PS</b> <b>Scientific Review: J</b> <b>Research:</b> 67,102,148,246,304,323-340</p> <p><b>Intended for: P</b> <b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Depression</p> <p><u>Uses:</u> Intended as a brief measure of depression, useful as a screen or as one test in a more comprehensive evaluation. Designed for assessment of psychiatric patients, not pain patients, which can bias results, and this should be a consideration when using.</p> <p><u>Benefits:</u> Can identify patients needing referral for further assessment and treatment for depression. Repeated administrations can track progress in treatment for depression.</p>	<p><u>Strengths:</u> Well-known, brief measure.</p> <p><u>Weaknesses:</u> Limited to assessment of depression, easily faked. Psychometric characteristics are not well established, and similar scales are prone to false positive findings. Should not be used as a stand-alone measure, especially when secondary gain is present.</p>	<p>20 items, 1 scale, no validity measures, 5 minutes, hand scoring</p>

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**Psychological Tests Commonly Used in the Assessment of Chronic Pain \***

TEST	TEST CHARACTERISTICS	STRENGTHS AND WEAKNESSES	LENGTH, SCORING OPTIONS & TEST TAKING TIME
<b>Brief Specialized Medical Measures</b>			
<p><b>MPQ (McGill Pain Questionnaire)</b></p> <p><b>Unpublished test</b></p> <p><b>Scientific Review: JB</b></p> <p><b>Research:</b> 65,78,93,100,101,103,107,174,256,276,288,306,308,338,341-381</p> <p><b>Intended for: M</b></p> <p><b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Measures cognitive, emotional and sensory aspects of pain.</p> <p><u>Uses:</u> Assesses pain experience, useful as a screen or as one test in a more comprehensive evaluation.</p> <p><u>Benefits:</u> Can identify patients prone to pain magnification. Repeated administrations can track progress in treatment for pain.</p>	<p><u>Strengths:</u> Well-known and researched in the pain community. Variations of this test have been translated into 12 languages. Provides a way to describe pain and measure treatment utility including organic and affective components.</p> <p><u>Weaknesses:</u> Unpublished test with no test manual. Good reliability, but psychometric problems include a lack of discriminate validity and high intercorrelations between subscales that reduce their usefulness. Four different scoring methods have been proposed in the literature. Overall score may be the only useful score clinically.</p>	<p>60 Items 3 subscales, 1 scale, no validity measures, 10-20 minutes</p>
<p><b>MPQ-SF (McGill Pain Questionnaire – Short Form)</b></p> <p><b>Unpublished test</b></p> <p><b>Scientific Review: J</b></p> <p><b>Research:</b> <sup>381</sup></p> <p><b>Intended for: M</b></p> <p><b>Restrictions: U</b></p>	<p><u>What it Measures:</u> Measures emotional and sensory aspects of pain.</p> <p><u>Uses:</u> A shorter version of the MPQ, that intercorrelates highly with it, and may make administering the whole test unnecessary.</p> <p><u>Benefits:</u> Can identify patients prone to pain magnification. Repeated administrations can track progress in treatment for pain.</p>	<p><u>Strengths:</u> Shorter version of a well known test.</p> <p><u>Weaknesses:</u> Unpublished test with no test manual. Good reliability, but psychometric problems include a lack of discriminate validity and high intercorrelations between subscales that reduce their usefulness. Overall score may be the only useful score clinically.</p>	<p>20 Items 3 subscales, 1 scale, no validity measures, 3-5 minutes</p>
<p><b>Oswestry Disability Questionnaire</b></p> <p><b>Unpublished test</b></p> <p><b>Scientific Review: JB</b></p> <p><b>Research:</b> <sup>67,164,325,382-389</sup></p> <p><b>Intended for: M</b></p>	<p><u>What it Measures:</u> Perceived disability secondary to low back pain.</p> <p><u>Uses:</u> Brief measure useful to assess patient perception of disability, as an outcome measure, or as one test in a more comprehensive evaluation.</p>	<p><u>Strengths:</u> Considerable research base, commonly used as an outcome measure, well known.</p> <p><u>Weaknesses:</u> Unpublished test with no test manual, and no norms. Limited to use with low back pain patients. Does not assess any</p>	<p>20 Items, 1 scales, 3-4 minutes, no validity measures</p>

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**Psychological Tests Commonly Used in the Assessment of Chronic Pain \***

<b>TEST</b>	<b>TEST CHARACTERISTICS</b>	<b>STRENGTHS AND WEAKNESSES</b>	<b>LENGTH, SCORING OPTIONS &amp; TEST TAKING TIME</b>
<b>Restrictions: U</b>	<u>Benefits:</u> Can measure patients' self-perceptions of disability. Serial administrations could be used to track changes in self-perceptions of functional ability during the course of treatment, and assess outcome.	psychological variables.	
<b>Visual Analogue Pain Scale (VAS)</b> <b>Unpublished test</b>  <b>Scientific Review: J</b> <b>Intended for: M</b> <b>Restrictions: U</b>	<u>What it Measures:</u> Graphical measure of patient's pain report.  <u>Uses:</u> Extremely brief measure of pain, useful when relative, as opposed to standardized, assessment of pain is acceptable. Serial administration may be used to assess changes in pain, or as an outcome measure.  <u>Benefits:</u> Quantifies patients' pain reports. Serial administrations could be used to track changes in pain reports during the course of treatment, and assess outcome.	<u>Strengths:</u> Very simple nonpsychometric instrument, extremely quick to administer and score. Widely used in research, and has been shown to correlate with the intensity of physical stimuli.  <u>Weaknesses:</u> Unpublished test with no test manual. No standardized visual stimulus, with both vertical and horizontal versions. No standardized instructions (rate pain right now, rate pain recently, etc), and no agreement as to what label to apply to the highest score. This has resulted in a multitude of versions of the VAS scale that are not equivalent. No norms or reliability information is available. Some individuals have difficulty with the spatial aspect of responding required.	Manual scoring, no validity measures <1 minute

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### \* KEY

<b>Standardization:</b>	<b>S</b> Published and standardized <b>PS</b> Partially standardized	<b>NS</b> Not standardized
<b>Scientific Review:</b>	<b>J</b> Peer reviewed journal publication(s) <b>B</b> Buros Institute Peer Review	<b>G</b> Listed in Guidelines
<b>Intended for:</b>	<b>M</b> Medical patients <b>P</b> Psychological patients	<b>B</b> Both <b>O</b> Other

### Test Security Level/ Purchasing Restrictions:

<b>Psy</b> Psychologist <b>MD</b> Physician ** <b>BS</b> BS/BA in health sciences**	<b>MS</b> Masters level mental health ** <b>H</b> Licensed health professional ** <b>U</b> Unpublished, unrestricted
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\*\* With documentation of psychometric training

### Notes:

- This desk reference document was developed by Daniel Bruns, PsyD in conjunction with the Chronic Pain Task Force and the Colorado Division of Worker Compensation, and finalized in 2015. **Disclosure:** Dr. Bruns is the coauthor of the BHI 2 and BBHI 2 tests.
- Along with the ACOEM<sup>390</sup> and ODG<sup>391</sup> guidelines, the Colorado Medical Treatment Guidelines (CMTG)<sup>392</sup> mandate the use of pretreatment psychological assessments, with the CMTG advocating identifying both primary and secondary biopsychosocial risk factors.<sup>24</sup> The CMTG mandate a “best-practice”, evidence-based biopsychosocial approach, have the status of legal regulations<sup>393</sup>, and have been associated with evidence of reduction in cost while also decreasing disability.<sup>10</sup> This desk reference is an auxiliary document developed in conjunction with the CMTG.
- All listed tests were judged to have acceptable evidence of validity and reliability except as noted.
- Tests published by major publishers are generally better standardized, and have manuals describing their psychometric characteristics and use. Published tests are also generally more difficult to fake, as access to test materials is restricted to qualified professionals. Third party peer review (by scientific journal or Buros Institute) supports the credibility of the test. Further information on psychological testing standards is available elsewhere.<sup>394</sup>
- Test norms provide a benchmark to which an individual’s score can be compared. Tests with patient norms detect patients who are having unusual psychological reactions, but may overlook psychological conditions common to patients. Community norms are often more sensitive to detecting psychological conditions common to patients, but are also more prone to false positives. Double normed tests (with both patient and community norms) combine the advantages of both methods.
- Preference should be given to psychological tests designed and normed for the population you wish to assess. Psychological tests designed for medical patients often assess syndromes unique to medical patients, and are constructed to avoid common pitfalls in the psychological assessment of medical patients. Psychological tests designed for psychiatric patients are generally more difficult to interpret when administered to medical patients, as they tend to assume that all physical symptoms present are psychogenic in nature (e.g. numbness and tingling may be assumed to be a sign of somatization). This increases the risk of false positive psychological findings.
- Tests sometimes undergo revision and features may change. When a test is updated, the use of the newer version of the test is strongly encouraged.



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**References**

1. Bruns D, Disorbio JM. The Psychological Assessment of Patients with Chronic Pain. In: Deer TR, ed. *Comprehensive Treatment of Chronic Pain: Medical, Interventional, and Behavioral Approaches*. New York: Springer; 2013:805-826.
2. Bruns D, Disorbio JM. Assessment of Biopsychosocial Risk Factors For Medical Treatment: A Collaborative Approach. *Journal of Clinical Psychology in Medical Settings* 2009; [http://www.healthpsych.com/bhi/patient\\_selection.pdf](http://www.healthpsych.com/bhi/patient_selection.pdf). Accessed March, 30, 2009.
3. Fishbain D, Lewis J, Bruns D, Meyer L, Gao J, Disorbio JM. The prevalence of smokers within chronic pain patients and highest pain levels versus comparison groups. *Pain Medicine*. 2013;14:403-416.
4. Gorgens K, Meyer LJ, Bruns D, Disorbio JM. Clinical predictors of delayed sleep onset in rehabilitation patients. *Rehabilitation Psychology 2012 National Conference*; 2012.
5. Fishbain DA, Lewis JE, Bruns D, Gao J, Disorbio JM, Meyer L. Patient predictor variables for six forms of suicidality. *European journal of pain*. 2012;16(5):706-717.
6. Fishbain DA, Bruns D, Meyer LJ, Lewis JE, Gao J, Disorbio JM. Exploration of the relationship between disability perception, preference for death over disability, and suicidality in patients with acute and chronic pain. *Pain Med*. 2012;13(4):552-561.
7. Disorbio JM, Bruns D, Bruns A. The reliability of a standardized method for assessing Block's criteria for psychosocial risk in patients being treated for pain and injury. *Pain Medicine*. 2012;13(2s).
8. Disorbio JM, Bruns D, Bruns A. Standardized norms for Block's criteria for psychosocial risk in patients being treated for pain and injury. *Pain Medicine*. 2012;13(2s).
9. Disorbio JM, Bruns D, Bruns A. The reliability of a standardized method for assessing Block's criteria for psychosocial risk in patients being treated for pain and injury. *American Academy of Pain Medicine's 2012 Annual Meeting* 2012; <http://www.painmed.org/2012posters/poster188.pdf>. Accessed June 10, 2014.
10. Bruns D, Mueller K, Warren PA. Biopsychosocial law, health care reform, and the control of medical inflation in Colorado. *Rehabilitation psychology*. 2012;57(2):81-97.
11. Fishbain DA, Bruns D, Lewis JE, Disorbio JM, Gao J, Meyer LJ. Predictors of Homicide-Suicide Affirmation in Acute and Chronic Pain Patients. *Pain Med*. 2011;12(1):127-137.
12. Fishbain D, Lewis J, Bruns D, Gao J, Disorbio JM, Meyer LJ. Somatic symptom clusters in community patients with pain, acute pain patients and chronic pain patients. *Pain Medicine*. 2011;12(3):473.
13. Fishbain D, Lewis J, Bruns D, Disorbio JM, Gao J, Meyer LJ. Exploration of Anger Constructs in Acute and Chronic Pain Patients versus Community Patients *Pain Medicine*. 2011;12(3):495.
14. Fishbain D, Bruns D, Meyer LJ, Lewis J, Gao J, Disorbio JM. Is endorsement of preference for death over disability associated with suicidality in chronic pain patients? *Pain Medicine*. 2011;12(3):495-496.
15. Bruns D, Warren PA. The Assessment Of Psychosocial Contributions To Disability. In: Warren PA, ed. *Handbook of Behavioral Health Disability*. New York: Springer; 2011:73-104.
16. Bruns D, Bruns A. Sleep disorders, affect, substance use and widespread pain: a factor analytic study. *Journal of Pain*. 2011(Supplement):P15.
17. Tragesser SL, Bruns D, Disorbio JM. Borderline personality disorder features and pain: the mediating role of negative affect in a pain patient sample. *Clin J Pain*. 2010;26(4):348-353.
18. Fishbain DA, Lewis JE, Bruns D, Disorbio JM, Gao J, Meyer LJ. Exploration of anger constructs in acute and chronic pain patients vs. community patients. *Pain Pract*. 2011;11(3):240-251.
19. Fishbain DA, Bruns D, Disorbio JM, Lewis JE, Gao J. Variables associated with self-prediction of psychopharmacological treatment adherence in acute and chronic pain patients. *Pain Pract*. 2010;10(6):508-519.
20. Fishbain DA, Bruns D, Disorbio JM, Lewis JE, Gao J. Exploration of the illness uncertainty concept in acute and chronic pain patients vs community patients. *Pain Med*. 2010;11(5):658-669.
21. Bruns D, Fishbain DA, Disorbio JM, Lewis JE. What Variables Are Associated With an Expressed Wish to Kill a Doctor in Community and Injured Patient Samples? *J Clin Psychol Med Settings*. 2010.

**Colorado Division of Workers' Compensation  
COMPREHENSIVE PSYCHOLOGICAL TESTING**

22. Fishbain DA, Bruns D, Disorbio JM, Lewis JE. Risk for five forms of suicidality in acute pain patients and chronic pain patients vs pain-free community controls. *Pain Med.* 2009;10(6):1095-1105.
23. Fishbain DA, Bruns D, Disorbio JM, Lewis JE. Correlates of self-reported violent ideation against physicians in acute--and chronic-pain patients. *Pain Med.* 2009;10(3):573-585.
24. Bruns D, Disorbio JM. Assessment of biopsychosocial risk factors for medical treatment: a collaborative approach. *J Clin Psychol Med Settings.* 2009;16(2):127-147.
25. Fishbain DA, Bruns D, Disorbio JM, Lewis JE. What are the variables that are associated with the patient's wish to sue his physician in patients with acute and chronic pain? *Pain Med.* 2008;9(8):1130-1142.
26. Bruns D. Chronic pain. In: Leong FTL, ed. *Encyclopedia of counseling.* Los Angeles: SAGE Publications; 2008.
27. Fishbain DA, Bruns D, Disorbio JM, Lewis JE. What patient attributes are associated with thoughts of suing a physician? *Arch Phys Med Rehabil.* 2007;88(5):589-596.
28. Bruns D, Disorbio JM, Hanks R. Chronic pain and violent ideation: testing a model of patient violence. *Pain Med.* 2007;8(3):207-215.
29. Disorbio JM, Bruns D, Barolat G. Assessment and treatment of chronic pain: A physician's guide to a biopsychosocial approach. *Practical Pain Management.* 2006;6(2):11-27.
30. Bruns D, Disorbio JM, Bennett DB, Simon S, Shoemaker S, Portenoy RK. Degree of pain intolerance and adverse outcomes in chronic noncancer pain patients. *Journal of Pain.* 2005;6(3(S)):s74.
31. Bruns D, Disorbio JM. Chronic pain and biopsychosocial disorders. *Practical Pain Management.* 2005;5(7):52-61.
32. Bruns D, Disorbio JM, Hanks R. Chronic nonmalignant pain and violent behavior. *Curr Pain Headache Rep.* 2003;7(2):127-132.
33. Bruns D, Disorbio JM. *Battery for Health Improvement 2 Manual.* Minneapolis: Pearson; 2003.
34. Freedendfeld RN, Bailey BE, Bruns D, Fuchs PN, Kiser RS. Prediction of Interdisciplinary Pain Treatment Outcome using the Battery for Health Improvement. Paper presented at: Proceedings of the 10th World Congress on Pain2002; San Francisco.
35. Bruns D, Disorbio JM. Hostility and violent ideation: physical rehabilitation patient and community samples. *Pain Med.* 2000;1(2):131-139.
36. Meyer LJ, Bruns D, Disorbio JM, Bruns A. Reliability of den Boer's criteria. *Pain Practice.* 2012;12(s1):50.
37. Meyer LJ, Bruns D, Disorbio JM, Bruns A. Standardizing den Boer's criteria for presurgical psychological assessment. *Pain Practice.* 2012;12(s1):134.
38. Bruns D, Bruns A, Disorbio JM. Three methods of presurgical psychological evaluation: standardization and empirical comparison. *American Psychological Association National Conference* 2012; <http://psycnet.apa.org/psycextra/664452012-001.pdf>. Accessed May 16, 2014.
39. Bruns D, Disorbio JM. The Psychological Evaluation of Patients with Chronic Pain: a Review of BHI 2 Clinical and Forensic Interpretive Considerations. *Psychol Inj Law.* 2014;7(4):335-361.
40. Bruns A, Bruns D, Disorbio JM, Jewell D. Development of a BHI-2 measure to predict the risk of opioid overuse. *American Psychological Association National Convention* 2014; <http://apps.apa.org/ConvAbstract/abstracts/attachment142254.pdf>. Accessed October 10, 2014.
41. Farrell K, Shen BJ, Mallon S, Penedo FJ, Antoni MH. Utility of the Millon Behavioral Medicine Diagnostic to Predict Medication Adherence in Patients Diagnosed with Heart Failure. *J Clin Psychol Med Settings.* 2011.
42. Burbridge C, Cruess DG, Antoni MH, Meagher S. Using the Millon Behavioral Medicine Diagnostic (MBMD) to Evaluate the Need for Mental Health Services in Association with Biomarkers of Disease Status Among HIV Positive Men and Women. *J Clin Psychol Med Settings.* 2011.
43. Wise EA, Streiner DL. A comparison of the millon behavioral medical diagnostic and millon behavioral health inventory with medical populations. *J Clin Psychol.* 2010;66(12):1281-1291.
44. Lim SY, Lee D, Oh KS, et al. Concealment, depression and poor quality of life in patients with congenital facial anomalies. *J Plast Reconstr Aesthet Surg.* 2010;63(12):1982-1989.
45. Cruess DG, Localio AR, Platt AB, et al. Patient attitudinal and behavioral factors associated with warfarin non-adherence at outpatient anticoagulation clinics. *Int J Behav Med.* 2010;17(1):33-42.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

46. Beck KD, Franks SF, Hall JR. Postinjury personality and outcome in acquired brain injury: the Millon Behavioral Medicine Diagnostic. *PM R*. 2010;2(3):195-201; quiz 227.
47. Joseph S, Zuriqat M, Husari A. Sustained Improvement in Cognitive and Emotional Status of Apneic Patients After Prolonged Treatment with Positive Airway Pressure. *South Med J*. 2009.
48. Walfish S, Wise EA, Streiner DL. Limitations of the Millon Behavioral Medicine Diagnostic (MBMD) with bariatric surgical candidates. *Obes Surg*. 2008;18(10):1318-1322.
49. Strack S. The Millon Behavioral Medicine Diagnostic (MBMD) is a valid, reliable, and relevant choice for bariatric surgery candidates. *Obes Surg*. 2008;18(12):1657-1659; author reply 1660-1653.
50. Cruess DG, Minor S, Antoni MH, Millon T. Utility of the Millon Behavioral Medicine Diagnostic (MBMD) to predict adherence to highly active antiretroviral therapy (HAART) medication regimens among HIV-positive men and women. *J Pers Assess*. 2007;89(3):277-290.
51. Rivera JJ, Singh V, Fellows B, Pampati V, Damron KS, McManus CD. Reliability of psychological evaluation in chronic pain in an interventional pain management setting. *Pain Physician*. 2005;8(4):375-383.
52. Guisado Macias JA, Vaz Leal FJ. Psychopathological differences between morbidly obese binge eaters and non-binge eaters after bariatric surgery. *Eat Weight Disord*. 2003;8(4):315-318.
53. Guisado JA, Vaz FJ. Personality profiles of the morbidly obese after vertical banded gastroplasty. *Obes Surg*. 2003;13(3):394-398.
54. Wise EA. Relationships of personality disorders with MMPI-2 malingering, defensiveness, and inconsistent response scales among forensic examinees. *Psychol Rep*. 2002;90(3 Pt 1):760-766.
55. Manchikanti L, Pampati V, Beyer C, Damron K. Do number of pain conditions influence emotional status? *Pain Physician*. 2002;5(2):200-205.
56. Manchikanti L, Fellows B, Pampati V, Beyer C, Damron K, Barnhill RC. Comparison of psychological status of chronic pain patients and the general population. *Pain Physician*. 2002;5(1):40-48.
57. Piotrowski C. Use of the Million Clinical Multiaxial Inventory in clinical practice. *Percept Mot Skills*. 1997;84(3 Pt 2):1185-1186.
58. Uomoto JM, Turner JA, Herron LD. Use of the MMPI and MCMI in predicting outcome of lumbar laminectomy. *J Clin Psychol*. 1988;44(2):191-197.
59. Jay GW, Grove RN, Grove KS. Differentiation of chronic headache from non-headache pain patients using the Millon Clinical Multiaxial Inventory (MCMI). *Headache*. 1987;27(3):124-129.
60. Greiffenstein M, Gervais R, Baker WJ, Artiola L, Smith H. Symptom validity testing in medically unexplained pain: a chronic regional pain syndrome type 1 case series. *Clin Neuropsychol*. 2013;27(1):138-147.
61. Aguerrevere LE, Greve KW, Bianchini KJ, Meyers JE. Detecting malingering in traumatic brain injury and chronic pain with an abbreviated version of the Meyers Index for the MMPI-2. *Arch Clin Neuropsychol*. 2008;23(7-8):831-838.
62. Fishbain DA, Cole B, Cutler RB, Lewis J, Rosomoff HL, Rosomoff RS. Chronic pain and the measurement of personality: do states influence traits? *Pain Med*. 2006;7(6):509-529.
63. Arbisi PA, Butcher JN. Psychometric perspectives on detection of malingering of pain: use of the Minnesota Multiphasic Personality Inventory-2. *Clin J Pain*. 2004;20(6):383-391.
64. Ong KS, Keng SB. The biological, social, and psychological relationship between depression and chronic pain. *Cranio*. 2003;21(4):286-294.
65. Larrabee GJ. Exaggerated pain report in litigants with malingered neurocognitive dysfunction. *Clin Neuropsychol*. 2003;17(3):395-401.
66. Gallagher RM. Waddell signs: objectifying pain and the limits of medical altruism. *Pain Med*. 2003;4(2):113-115.
67. Slesinger D, Archer RP, Duane W. MMPI-2 characteristics in a chronic pain population. *Assessment*. 2002;9(4):406-414.
68. Dersh J, Polatin PB, Gatchel RJ. Chronic pain and psychopathology: research findings and theoretical considerations. *Psychosom Med*. 2002;64(5):773-786.
69. Mongini F, Ciccone G, Ibertis F, Negro C. Personality characteristics and accompanying symptoms in temporomandibular joint dysfunction, headache, and facial pain. *J Orofac Pain*. 2000;14(1):52-58.
70. Meldolesi G, Picardi A, Accivile E, Toraldo di Francia R, Biondi M. Personality and psychopathology in

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

- patients with temporomandibular joint pain-dysfunction syndrome. A controlled investigation. *Psychother Psychosom.* 2000;69(6):322-328.
71. Weisberg JN, Vaillancourt PD. Personality factors and disorders in chronic pain. *Semin Clin Neuropsychiatry.* 1999;4(3):155-166.
  72. Vendrig AA. Prognostic factors and treatment-related changes associated with return to work in the multimodal treatment of chronic back pain. *J Behav Med.* 1999;22(3):217-232.
  73. Lumley MA, Asselin LA, Norman S. Alexithymia in chronic pain patients. *Compr Psychiatry.* 1997;38(3):160-165.
  74. Block AR, Vanharanta H, Ohnmeiss DD, Guyer RD. Discographic pain report. Influence of psychological factors. *Spine.* 1996;21(3):334-338.
  75. Riley JL, 3rd, Robinson ME, Geisser ME, Wittmer VT, Smith AG. Relationship between MMPI-2 cluster profiles and surgical outcome in low-back pain patients. *J Spinal Disord.* 1995;8(3):213-219.
  76. Gatchel RJ, Polatin PB, Kinney RK. Predicting outcome of chronic back pain using clinical predictors of psychopathology: a prospective analysis. *Health Psychol.* 1995;14(5):415-420.
  77. Etscheidt MA, Steger HG, Braverman B. Multidimensional Pain Inventory profile classifications and psychopathology. *J Clin Psychol.* 1995;51(1):29-36.
  78. Burchiel KJ, Anderson VC, Wilson BJ, Denison DB, Olson KA, Shatin D. Prognostic factors of spinal cord stimulation for chronic back and leg pain. *Neurosurgery.* 1995;36(6):1101-1110; discussion 1110-1101.
  79. Dush DM, Simons LE, Platt M, Nation PC, Ayres SY. Psychological profiles distinguishing litigating and nonlitigating pain patients: subtle, and not so subtle. *J Pers Assess.* 1994;62(2):299-313.
  80. Chapman SL, Pemberton JS. Prediction of treatment outcome from clinically derived MMPI clusters in rehabilitation for chronic low back pain. *Clin J Pain.* 1994;10(4):267-276.
  81. Tollison CD. The comprehensive diagnosis of spinal pain. A new psychodiagnostic instrument. *Orthop Rev.* 1993;22(3):335-340.
  82. Riley JL, 3rd, Robinson ME, Geisser ME, Wittmer VT. Multivariate cluster analysis of the MMPI-2 in chronic low-back pain patients. *Clin J Pain.* 1993;9(4):248-252.
  83. Swimmer GI, Robinson ME, Geisser ME. Relationship of MMPI cluster type, pain coping strategy, and treatment outcome. *Clin J Pain.* 1992;8(2):131-137.
  84. Wesley AL, Gatchel RJ, Polatin PB, Kinney RK, Mayer TG. Differentiation between somatic and cognitive/affective components in commonly used measurements of depression in patients with chronic low-back pain. Let's not mix apples and oranges. *Spine.* 1991;16(6 Suppl):S213-215.
  85. Kinney RK, Gatchel RJ, Mayer TG. The SCL-90R evaluated as an alternative to the MMPI for psychological screening of chronic low-back pain patients. *Spine.* 1991;16(8):940-942.
  86. Keller LS, Butcher JN. *Assessment of chronic pain patients with the MMPI-2.* Minneapolis: University of Minnesota Press; 1991.
  87. Wurtele SK, Kaplan GM, Keairnes M. Childhood sexual abuse among chronic pain patients. *Clin J Pain.* 1990;6(2):110-113.
  88. Barnes D, Gatchel RJ, Mayer TG, Barnett J. Changes in MMPI profile levels of chronic low back pain patients following successful treatment. *J Spinal Disord.* 1990;3(4):353-355.
  89. Maruta T. Depression associated with chronic pain: incidence, characteristics, and long-term outcome. *Keio J Med.* 1989;38(4):403-412.
  90. King SA, Snow BR. Factors for predicting premature termination from a multidisciplinary inpatient chronic pain program. *Pain.* 1989;39(3):281-287.
  91. Gallagher RM, Rauh V, Haugh LD, et al. Determinants of return-to-work among low back pain patients. *Pain.* 1989;39(1):55-67.
  92. Barnes D, Smith D, Gatchel RJ, Mayer TG. Psychosocioeconomic predictors of treatment success/failure in chronic low-back pain patients. *Spine (Phila Pa 1976).* 1989;14(4):427-430.
  93. Kleinke CL, Spangler AS, Jr. Predicting treatment outcome of chronic back pain patients in a multidisciplinary pain clinic: methodological issues and treatment implications. *Pain.* 1988;33(1):41-48.
  94. Fredrickson BE, Trief PM, VanBeveren P, Yuan HA, Baum G. Rehabilitation of the patient with chronic back pain. A search for outcome predictors. *Spine.* 1988;13(3):351-353.
  95. McArthur DL, Cohen MJ, Gottlieb HJ, Naliboff BD, Schandler SL. Treating chronic low back pain. I. Admissions to initial follow-up. *Pain.* 1987;29(1):1-22.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

96. Ellertsen B, Klove H. MMPI patterns in chronic muscle pain, tension headache, and migraine. *Cephalalgia*. 1987;7(1):65-71.
97. Turner JA, Herron L, Weiner P. Utility of the MMPI Pain Assessment Index in predicting outcome after lumbar surgery. *J Clin Psychol*. 1986;42(5):764-769.
98. Trief P, Stein N. Pending litigation and rehabilitation outcome of chronic back pain. *Arch Phys Med Rehabil*. 1985;66(2):95-99.
99. Sherman RA. Relationships between jaw pain and jaw muscle contraction level: underlying factors and treatment effectiveness. *J Prosthet Dent*. 1985;54(1):114-118.
100. Melzack R, Katz J, Jeans ME. The role of compensation in chronic pain: analysis using a new method of scoring the McGill Pain Questionnaire. *Pain*. 1985;23(2):101-112.
101. Frymoyer JW, Rosen JC, Clements J, Pope MH. Psychologic factors in low-back-pain disability. *Clin Orthop Relat Res*. 1985(195):178-184.
102. Turner JA, Romano JM. Self-report screening measures for depression in chronic pain patients. *J Clin Psychol*. 1984;40(4):909-913.
103. McCreary C, Colman A. Medication usage, emotional disturbance, and pain behavior in chronic low back pain patients. *J Clin Psychol*. 1984;40(1):15-19.
104. Block AR, Boyer SL. The spouse's adjustment to chronic pain: cognitive and emotional factors. *Soc Sci Med*. 1984;19(12):1313-1317.
105. Trief PM, Yuan HA. The use of the MMPI in a chronic back pain rehabilitation program. *J Clin Psychol*. 1983;39(1):46-53.
106. Reich J, Tupin JP, Abramowitz SI. Psychiatric diagnosis of chronic pain patients. *Am J Psychiatry*. 1983;140(11):1495-1498.
107. McGill JC, Lawlis GF, Selby D, Mooney V, McCoy CE. The relationship of Minnesota Multiphasic Personality Inventory (MMPI) profile clusters to pain behaviors. *J Behav Med*. 1983;6(1):77-92.
108. Naliboff BD, Cohen MJ, Yellin AM. Does the MMPI differentiate chronic illness from chronic pain? *Pain*. 1982;13:333-341.
109. Brandwin MA, Kewman DG. MMPI indicators of treatment response to spinal epidural stimulation in patients with chronic pain and patients with movement disorders. *Psychol Rep*. 1982;51(3 Pt 2):1059-1064.
110. Aronoff GM, Evans WO. The prediction of treatment outcome at a multidisciplinary pain center. *Pain*. 1982;14(1):67-73.
111. Oostdam EM, Duivenvoorden HJ, Pondaag W. Predictive value of some psychological tests on the outcome of surgical intervention in low back pain patients. *J Psychosom Res*. 1981;25(3):227-235.
112. Long CJ. The relationship between surgical outcome and MMPI profiles in chronic pain patients. *J Clin Psychol*. 1981;37(4):744-749.
113. Keefe FJ, Block AR, Williams RB, Jr., Surwit RS. Behavioral treatment of chronic low back pain: clinical outcome and individual differences in pain relief. *Pain*. 1981;11(2):221-231.
114. Maruta T, Swanson DW, Swenson WM. Chronic pain: which patients may a pain-management program help? *Pain*. 1979;7(3):321-329.
115. Sternbach RA, Wolf SR, Murphy RW, Akesson WH. Traits of pain patients: the low-back "loser". *Psychosomatics*. 1973;14(4):226-229.
116. Butcher JN. Personality assessment from the nineteenth to the early twenty-first century: past achievements and contemporary challenges. *Annu Rev Clin Psychol*. 2010;6:1-20.
117. Thomas ML, Youngjohn JR. Let's not get hysterical: comparing the MMPI-2 validity, clinical, and RC scales in TBI litigants tested for effort. *Clin Neuropsychol*. 2009;23(6):1067-1084.
118. Weed NC. Syndromal complexity, paradigm shifts, and the future of validation research: comments on Nichols and Rogers, Sewell, Harrison, and Jordan. *J Pers Assess*. 2006;87(2):217-222.
119. Tellegen A, Ben-Porath YS, Sellbom M, Arbisi PA, McNulty JL, Graham JR. Further evidence on the validity of the MMPI-2 Restructured Clinical (RC) Scales: addressing questions raised by Rogers, Sewell, Harrison, and Jordan and Nichols. *J Pers Assess*. 2006;87(2):148-171.
120. Simms LJ. Bridging the divide: comments on the Restructured Clinical Scales of the MMPI-2. *J Pers Assess*. 2006;87(2):211-216.
121. Sellbom M, Graham JR, Schenk PW. Incremental validity of the MMPI-2 Restructured Clinical (RC) scales in a private practice sample. *J Pers Assess*. 2006;86(2):196-205.
122. Sellbom M, Ben-Porath YS, McNulty JL, Arbisi PA, Graham JR. Elevation differences between MMPI-2 clinical and restructured clinical (RC) scales:

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

- frequency, origins, and interpretative implications. *Assessment*. 2006;13(4):430-441.
123. Sellbom M, Ben-Porath YS, Graham JR. Correlates of the MMPI-2 restructured clinical (RC) scales in a college counseling setting. *J Pers Assess*. 2006;86(1):88-99.
124. Rogers R, Sewell KW, Harrison KS, Jordan MJ. The MMPI-2 Restructured Clinical Scales: a paradigmatic shift in scale development. *J Pers Assess*. 2006;87(2):139-147.
125. Rogers R, Sewell KW. MMPI-2 at the crossroads: aging technology or radical retrofitting? *J Pers Assess*. 2006;87(2):175-178.
126. Nichols DS. The trials of separating bath water from baby: a review and critique of the MMPI-2 Restructured Clinical Scales. *J Pers Assess*. 2006;87(2):121-138.
127. Finn SE, Kamphuis JH. The MMPI-2 Restructured Clinical (RC) Scales and restraints to innovation, or "what have they done to my song?". *J Pers Assess*. 2006;87(2):202-210.
128. Caldwell AB. Maximal measurement or meaningful measurement: the interpretive challenges of the MMPI-2 Restructured Clinical (RC) Scales. *J Pers Assess*. 2006;87(2):193-201.
129. Butcher JN, Hamilton CK, Rouse SV, Cumella EJ. The deconstruction of the Hy Scale of MMPI-2: failure of RC3 in measuring somatic symptom expression. *J Pers Assess*. 2006;87(2):186-192.
130. Archer RP. A perspective on the Restructured Clinical (RC) Scale Project. *J Pers Assess*. 2006;87(2):179-185.
131. Wallace A, Liljequist L. A comparison of the correlational structures and elevation patterns of the MMPI-2 restructured clinical (RC) and clinical scales. *Assessment*. 2005;12(3):290-294.
132. Simms LJ, Casillas A, Clark LA, Watson D, Doebbeling BN. Psychometric evaluation of the restructured clinical scales of the MMPI-2. *Psychol Assess*. 2005;17(3):345-358.
133. Sellbom M, Ben-Porath YS, Graham JR, Arbisi PA, Bagby RM. Susceptibility of the MMPI-2 clinical, restructured clinical (RC), and content scales to overreporting and underreporting. *Assessment*. 2005;12(1):79-85.
134. Sellbom M, Ben-Porath YS. Mapping the MMPI-2 Restructured Clinical scales onto normal personality traits: evidence of construct validity. *J Pers Assess*. 2005;85(2):179-187.
135. Tellegen A, Ben-Porath YS, McNulty JL, Arbisi PA, Graham JE, Kaemmer B. *The MMPI-2 restructured clinical (RC) scales*. Minneapolis: Pearson Assessments; 2003.
136. Hopwood CJ, Orlando MJ, Clark TS. The detection of malingered pain-related disability with the Personality Assessment Inventory. *Rehabil Psychol*. 2010;55(3):307-310.
137. Whiteside DM, Dunbar-Mayer P, Waters DP. Relationship between Tomm performance and PAI validity scales in a mixed clinical sample. *Clin Neuropsychol*. 2009;23(3):523-533.
138. King J, Sullivan KA. Deterring malingered psychopathology: The effect of warning simulating malingerers. *Behav Sci Law*. 2009;27(1):35-49.
139. Hopwood CJ, Creech SK, Clark TS, Meagher MW, Morey LC. Predicting the completion of an integrative and intensive outpatient chronic pain treatment with the personality assessment inventory. *J Pers Assess*. 2008;90(1):76-80.
140. Tragesser SL, Solhan M, Schwartz-Mette R, Trull TJ. The role of affective instability and impulsivity in predicting future BPD features. *J Personal Disord*. 2007;21(6):603-614.
141. Hall RC. Detection of malingered PTSD: an overview of clinical, psychometric, and physiological assessment: where do we stand? *J Forensic Sci*. 2007;52(3):717-725.
142. Karlin BE, Creech SK, Grimes JS, Clark TS, Meagher MW, Morey LC. The Personality Assessment Inventory with chronic pain patients: Psychometric properties and clinical utility. *J Clin Psychol*. 2005;61(12):1571-1585.
143. Portenoy RK, Bruns D, Shoemaker B, Shoemaker SA. Breakthrough pain in community-dwelling patients with cancer pain and noncancer pain, part 2: impact on function, mood, and quality of life. *J Opioid Manag*. 2010;6(2):109-116.
144. Deardorff WW. Brief Battery For Health Improvement 2. In: Gatchel RJ, ed. *Outcome instruments for assessment & research of spinal disorders*. La Grange, IL: North American Spine Society; 2006:26-27, 125-135.
145. Disorbio JM, Bruns D. *Brief Battery for Health Improvement 2 Manual*. Minneapolis: Pearson; 2002.
146. Main CJ, Wood PL, Hollis S, Spanswick CC, Waddell G. The Distress and Risk Assessment Method. A simple patient classification to identify distress and evaluate the risk of poor outcome. *Spine (Phila Pa 1976)*. 1992;17(1):42-52.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

147. Hobby JL, Lutchman LN, Powell JM, Sharp DJ. The distress and risk assessment method (DRAM). *J Bone Joint Surg Br.* 2001;83(1):19-21.
148. Harlacher U, Persson AL, Rivano-Fischer M, Sjolund BH. Using data from Multidimensional Pain Inventory subscales to assess functioning in pain rehabilitation. *Int J Rehabil Res.* 2011;34(1):14-21.
149. Nyberg VE, Novo M, Sjolund BH. Do Multidimensional Pain Inventory Scale score changes indicate risk of receiving sick leave benefits 1 year after a pain rehabilitation programme? *Disabil Rehabil.* 2010.
150. Verra ML, Angst F, Brioschi R, et al. Does classification of persons with fibromyalgia into Multidimensional Pain Inventory subgroups detect differences in outcome after a standard chronic pain management program? *Pain Res Manag.* 2009;14(6):445-453.
151. Rudy TE. Multidimensional Pain Inventory (MPI) Computer Program, Version 3.0. 2009; <http://www.pain.pitt.edu/mpi/>. Accessed September 18, 2010.
152. Lai YH, Guo SL, Keefe FJ, et al. Multidimensional Pain Inventory-Screening Chinese version (MPI-sC): psychometric testing in terminal cancer patients in Taiwan. *Support Care Cancer.* 2009;17(12):1445-1453.
153. Jakobsson U. Psychometric testing of the brief screening version of Multidimensional Pain Inventory (Swedish version). *Scand J Caring Sci.* 2009;23(1):171-179.
154. Silvemarm AJ, Kallmen H, Portala K, Molander C. Life satisfaction in patients with long-term non-malignant pain - relating LiSat-11 to the Multidimensional Pain Inventory (MPI). *Health Qual Life Outcomes.* 2008;6:70.
155. Rusu AC, Hasenbring M. Multidimensional Pain Inventory derived classifications of chronic pain: evidence for maladaptive pain-related coping within the dysfunctional group. *Pain.* 2008;134(1-2):80-90.
156. Laliberte S, Lamoureux J, Sullivan MJ, Miller JM, Charron J, Bouthillier D. French translation of the Multidimensional Pain Inventory: L'inventaire multidimensionnel de la douleur. *Pain Res Manag.* 2008;13(6):497-505.
157. Hopwood CJ, Creech SK, Clark TS, Meagher MW, Morey LC. Optimal scoring of the Multidimensional Pain Inventory in a chronic pain sample. *J Clin Psychol Med Settings.* 2008;15(4):301-307.
158. Bryce TN, Budh CN, Cardenas DD, et al. Pain after spinal cord injury: an evidence-based review for clinical practice and research. Report of the National Institute on Disability and Rehabilitation Research Spinal Cord Injury Measures meeting. *J Spinal Cord Med.* 2007;30(5):421-440.
159. Widerstrom-Noga EG, Cruz-Almeida Y, Martinez-Arizala A, Turk DC. Internal consistency, stability, and validity of the spinal cord injury version of the multidimensional pain inventory. *Arch Phys Med Rehabil.* 2006;87(4):516-523.
160. Soderlund A, Denison E. Classification of patients with whiplash associated disorders (WAD): reliable and valid subgroups based on the Multidimensional Pain Inventory (MPI-S). *Eur J Pain.* 2006;10(2):113-119.
161. Jakobsson U, Horstmann V. Psychometric evaluation of multidimensional pain inventory (Swedish version) in a sample of elderly people. *Eur J Pain.* 2006;10(7):645-651.
162. Edwards D, Gatchel R, Adams L, Stowell AW. Emotional distress and medication use in two acute pain populations: jaw and low back. *Pain Pract.* 2006;6(4):242-253.
163. Andreu Y, Galton MJ, Dura E, et al. An examination of the psychometric structure of the Multidimensional Pain Inventory in temporomandibular disorder patients: a confirmatory factor analysis. *Head Face Med.* 2006;2:48.
164. Wittink H, Turk DC, Carr DB, Sukiennik A, Rogers W. Comparison of the redundancy, reliability, and responsiveness to change among SF-36, Oswestry Disability Index, and Multidimensional Pain Inventory. *Clin J Pain.* 2004;20(3):133-142.
165. Vollenbroek-Hutten MM, Hermens HJ, Wever D, Gorter M, Rinket J, Ijzerman MJ. Differences in outcome of a multidisciplinary treatment between subgroups of chronic low back pain patients defined using two multiaxial assessment instruments: the multidimensional pain inventory and lumbar dynamometry. *Clin Rehabil.* 2004;18(5):566-579.
166. Broderick JE, Junghaenel DU, Turk DC. Stability of patient adaptation classifications on the multidimensional pain inventory. *Pain.* 2004;109(1-2):94-102.
167. Greco CM, Rudy TE, Manzi S. Adaptation to chronic pain in systemic lupus erythematosus: applicability of the multidimensional pain inventory. *Pain Med.* 2003;4(1):39-50.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

168. Olsson I, Bunketorp O, Carlsson SG, Styf J. Prediction of outcome in whiplash-associated disorders using West Haven-Yale Multidimensional Pain Inventory. *Clin J Pain*. 2002;18(4):238-244.
169. Gatchel RJ, Noe CE, Pulliam C, et al. A preliminary study of multidimensional pain inventory profile differences in predicting treatment outcome in a heterogeneous cohort of patients with chronic pain. *Clin J Pain*. 2002;18(3):139-143.
170. Phillips JM, Gatchel RJ, Wesley AL, Ellis E, 3rd. Clinical implications of sex in acute temporomandibular disorders. *J Am Dent Assoc*. 2001;132(1):49-57.
171. Deisinger JA, Cassisi JE, Lofland KR, Cole P, Bruehl S. An examination of the psychometric structure of the Multidimensional Pain Inventory. *J Clin Psychol*. 2001;57(6):765-783.
172. Burns JW, Kubilus A, Bruehl S, Harden RN. A fourth empirically derived cluster of chronic pain patients based on the multidimensional pain inventory: evidence for repression within the dysfunctional group. *J Consult Clin Psychol*. 2001;69(4):663-673.
173. Zaza C, Reyno L, Moulin DE. The multidimensional pain inventory profiles in patients with chronic cancer-related pain: an examination of generalizability. *Pain*. 2000;87(1):75-82.
174. Ferrari R, Novara C, Sanavio E, Zerbini F. Internal structure and validity of the multidimensional pain inventory, Italian language version. *Pain Med*. 2000;1(2):123-130.
175. Riley JL, 3rd, Zawacki TM, Robinson ME, Geisser ME. Empirical test of the factor structure of the West Haven-Yale Multidimensional Pain Inventory. *Clin J Pain*. 1999;15(1):24-30.
176. Okifuji A, Turk DC, Eveleigh DJ. Improving the rate of classification of patients with the multidimensional pain inventory (MPI): clarifying the meaning of "significant other". *Clin J Pain*. 1999;15(4):290-296.
177. Lousberg R, Van Breukelen GJ, Groenman NH, Schmidt AJ, Arntz A, Winter FA. Psychometric properties of the Multidimensional Pain Inventory, Dutch language version (MPI-DLV). *Behav Res Ther*. 1999;37(2):167-182.
178. Turk DC, Okifuji A, Sinclair JD, Starz TW. Differential responses by psychosocial subgroups of fibromyalgia syndrome patients to an interdisciplinary treatment. *Arthritis care and research : the official journal of the Arthritis Health Professions Association*. 1998;11(5):397-404.
179. Bergstrom G, Jensen IB, Bodin L, Linton SJ, Nygren AL, Carlsson SG. Reliability and factor structure of the Multidimensional Pain Inventory--Swedish Language Version (MPI-S). *Pain*. 1998;75(1):101-110.
180. Dahlstrom L, Widmark G, Carlsson SG. Cognitive-behavioral profiles among different categories of orofacial pain patients: diagnostic and treatment implications. *Eur J Oral Sci*. 1997;105(5 Pt 1):377-383.
181. Jensen I, Nygren A, Gamberale F, Goldie I, Westerholm P. Coping with long-term musculoskeletal pain and its consequences: is gender a factor? *Pain*. 1994;57(2):167-172.
182. Beck JG, Chase TJ, Berisford MA, Taegtmeier H. Pain profiles of patients with nonorganic chest pain: a preliminary report of the Multidimensional Pain Inventory. *J Pain Symptom Manage*. 1992;7(8):470-477.
183. Walter L, Brannon L. A cluster analysis of the multidimensional pain inventory. *Headache*. 1991;31(7):476-479.
184. Flor H, Rudy TE, Birbaumer N, Streit B, Schugens MM. [The applicability of the West Haven-Yale multidimensional pain inventory in German-speaking countries. Data on the reliability and validity of the MPI-D.]. *Schmerz*. 1990;4(2):82-87.
185. Kerns RD, Turk DC, Rudy TE. The West Haven-Yale Multidimensional Pain Inventory (WHYMPI). *Pain*. 1985;23(4):345-356.
186. Noble J, Gomez M, Fish JS. Quality of life and return to work following electrical burns. *Burns*. 2006;32(2):159-164.
187. Manchikanti L, Manchikanti KN, Manchukonda R, Pampati V, Cash KA. Evaluation of therapeutic thoracic medial branch block effectiveness in chronic thoracic pain: a prospective outcome study with minimum 1-year follow up. *Pain Physician*. 2006;9(2):97-105.
188. Manchikanti L, Manchikanti KN, Damron KS, Pampati V. Effectiveness of cervical medial branch blocks in chronic neck pain: a prospective outcome study. *Pain Physician*. 2004;7(2):195-201.
189. Hankin HA, Killian CB. Prediction of functional outcomes in patients with chronic pain. *Work*. 2004;22(2):125-130.
190. Manchikanti L, Fellows B, Singh V, Pampati V. Correlates of non-physiological behavior in patients with chronic low back pain. *Pain Physician*. 2003;6(2):159-166.



**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

191. Manchikanti L, Pampati V, Beyer C, Damron K, Barnhill RC. Evaluation of psychological status in chronic low back pain: comparison with general population. *Pain Physician*. 2002;5(2):149-155.
192. McGuire BE, Shores EA. Pain patient profile and the assessment of malingered pain. *J Clin Psychol*. 2001;57(3):401-409.
193. McGuire BE, Harvey AG, Shores EA. Simulated malingering in pain patients: a study with the Pain Patient Profile. *Br J Clin Psychol*. 2001;40(Pt 1):71-79.
194. Willoughby SG, Hailey BJ, Wheeler LC. Pain Patient Profile: a scale to measure psychological distress. *Arch Phys Med Rehabil*. 1999;80(10):1300-1302.
195. Tollison D, Langley JC. *Pain Patient Profile Manual*. Minneapolis: Pearson Assessments; 1995.
196. Nazemi H, Larkin AA, Sullivan MD, Katon W. Methodological issues in the recruitment of primary care patients with depression. *Int J Psychiatry Med*. 2001;31(3):277-288.
197. Wells TS, Horton JL, Leardmann CA, Jacobson IG, Boyko EJ. A comparison of the PRIME-MD PHQ-9 and PHQ-8 in a large military prospective study, the Millennium Cohort Study. *J Affect Disord*. 2012.
198. Tamburrino MB, Lynch DJ, Nagel RW, Smith MK. Primary care evaluation of mental disorders (PRIME-MD) screening for minor depressive disorder in primary care. *Prim Care Companion J Clin Psychiatry*. 2009;11(6):339-343.
199. Bakker IM, Terluin B, van Marwijk HW, van Mechelen W, Stalman WA. Test-retest reliability of the PRIME-MD: limitations in diagnosing mental disorders in primary care. *European journal of public health*. 2009;19(3):303-307.
200. Mata S, Gonzalez A, Lavie R, Resler G. [Validation of the PRIME-MD for the detection of generalized anxiety disorder]. *Investigacion clinica*. 2008;49(1):39-48.
201. Jacob R. PRIME-MD health questionnaire for diagnosis of common mental disorders. *Indian J Med Res*. 2008;127(5):506; author reply 506.
202. Hepner KA, Morales LS, Hays RD, Edelen MO, Miranda J. Evaluating differential item functioning of the PRIME-MD mood module among impoverished black and white women in primary care. *Women's health issues : official publication of the Jacobs Institute of Women's Health*. 2008;18(1):53-61.
203. Avasthi A, Varma SC, Kulhara P, Nehra R, Grover S, Sharma S. Diagnosis of common mental disorders by using PRIME-MD Patient Health Questionnaire. *Indian J Med Res*. 2008;127(2):159-164.
204. Norton J, De Roquefeuil G, Boulenger JP, Ritchie K, Mann A, Tylee A. Use of the PRIME-MD Patient Health Questionnaire for estimating the prevalence of psychiatric disorders in French primary care: comparison with family practitioner estimates and relationship to psychotropic medication use. *Gen Hosp Psychiatry*. 2007;29(4):285-293.
205. Fraguas R, Jr., Henriques SG, Jr., De Lucia MS, et al. The detection of depression in medical setting: a study with PRIME-MD. *J Affect Disord*. 2006;91(1):11-17.
206. Russell AS, Hui BK. The use of PRIME-MD questionnaire in a rheumatology clinic. *Rheumatology international*. 2005;25(4):292-295.
207. Rollman BL, Belnap BH, Mazumdar S, et al. Symptomatic severity of PRIME-MD diagnosed episodes of panic and generalized anxiety disorder in primary care. *J Gen Intern Med*. 2005;20(7):623-628.
208. Persoons P, Luyckx K, Desloovere C, Vandenberghe J, Fischler B. Anxiety and mood disorders in otorhinolaryngology outpatients presenting with dizziness: validation of the self-administered PRIME-MD Patient Health Questionnaire and epidemiology. *Gen Hosp Psychiatry*. 2003;25(5):316-323.
209. Schriger DL, Gibbons PS, Langone CA, Lee S, Altshuler LL. Enabling the diagnosis of occult psychiatric illness in the emergency department: a randomized, controlled trial of the computerized, self-administered PRIME-MD diagnostic system. *Ann Emerg Med*. 2001;37(2):132-140.
210. Baca Baldomero E, Saiz Ruiz J, Porras Chavarino A. [The detection of mental disorders by physicians who are not psychiatrists: usefulness of the PRIME-MD questionnaire]. *Med Clin (Barc)*. 2001;116(13):504-509.
211. Spitzer RL, Williams JB, Kroenke K, Hornyak R, McMurray J. Validity and utility of the PRIME-MD patient health questionnaire in assessment of 3000 obstetric-gynecologic patients: the PRIME-MD Patient Health Questionnaire Obstetrics-Gynecology Study. *Am J Obstet Gynecol*. 2000;183(3):759-769.
212. Loerch B, Szegedi A, Kohnen R, Benkert O. The primary care evaluation of mental disorders (PRIME-MD), German version: a

**Colorado Division of Workers' Compensation  
COMPREHENSIVE PSYCHOLOGICAL TESTING**

- comparison with the CIDI. *J Psychiatr Res.* 2000;34(3):211-220.
213. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *JAMA.* 1999;282(18):1737-1744.
214. Baca E, Saiz J, Aguera L, et al. [Validation of the Spanish version of PRIME-MD: a procedure for diagnosing mental disorders in primary care]. *Actas espanolas de psiquiatria.* 1999;27(6):375-383.
215. Baca Baldomero E, Saiz Ruiz J, Aguera Ortiz LF, et al. [Prevalence of psychiatric disorders in primary care using the PRIME-MD questionnaire]. *Aten Primaria.* 1999;23(5):275-279.
216. Schmidt VM. ["Prime-MD"--a quick method for diagnosis of mental disease in general practice. Is the documentation correct?]. *Ugeskrift for laeger.* 1998;160(37):5370-5371.
217. Rasmussen S. ["Prime-MD"--a rapid method for diagnosis of mental disease in general practice]. *Ugeskrift for laeger.* 1998;160(39):5672.
218. Leopold KA, Ahles TA, Walch S, et al. Prevalence of mood disorders and utility of the PRIME-MD in patients undergoing radiation therapy. *Int J Radiat Oncol Biol Phys.* 1998;42(5):1105-1112.
219. Bundgaard S. ["Prime-MD"--a glittering tool]. *Ugeskrift for laeger.* 1998;160(48):6987-6988.
220. Piekarska A, Jakubik A. [Prime-MD as a method for the diagnosis of mental disorders in primary health care]. *Psychiatria polska.* 1997;31(6):655-665.
221. Parker T, May PA, Maviglia MA, Petrakis S, Sunde S, Gloyd SV. PRIME-MD: its utility in detecting mental disorders in American Indians. *Int J Psychiatry Med.* 1997;27(2):107-128.
222. Van Hook MP, Berkman B, Dunkle R. Assessment tools for general health care settings: PRIME-MD, OARS, and SF-36. Primary Care Evaluation of Mental Health Disorders. Older Americans Resources and Services Questionnaire; Short Form-36. *Health & social work.* 1996;21(3):230-234.
223. Linzer M, Spitzer R, Kroenke K, et al. Gender, quality of life, and mental disorders in primary care: results from the PRIME-MD 1000 study. *Am J Med.* 1996;101(5):526-533.
224. Spitzer RL, Kroenke K, Linzer M, et al. Health-related quality of life in primary care patients with mental disorders. Results from the PRIME-MD 1000 Study. *JAMA.* 1995;274(19):1511-1517.
225. Johnson JG, Spitzer RL, Williams JB, et al. Psychiatric comorbidity, health status, and functional impairment associated with alcohol abuse and dependence in primary care patients: findings of the PRIME MD-1000 study. *J Consult Clin Psychol.* 1995;63(1):133-140.
226. Spitzer RL, Williams JB, Kroenke K, et al. Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 study. *JAMA.* 1994;272(22):1749-1756.
227. Rollman BL, Herbeck Belnap B, Mazumdar S, et al. A positive 2-item Patient Health Questionnaire depression screen among hospitalized heart failure patients is associated with elevated 12-month mortality. *Journal of cardiac failure.* 2012;18(3):238-245.
228. Kessler R. CBT by telephone for depression improved adherence compared with face-to-face CBT in primary care. *Ann Intern Med.* 2012;157(6):JC3-12.
229. Zuithoff NP, Vergouwe Y, King M, et al. The Patient Health Questionnaire-9 for detection of major depressive disorder in primary care: consequences of current thresholds in a crosssectional study. *BMC Fam Pract.* 2010;11:98.
230. Arroll B, Goodyear-Smith F, Crengle S, et al. Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. *Ann Fam Med.* 2010;8(4):348-353.
231. Lin EH, Heckbert SR, Rutter CM, et al. Depression and increased mortality in diabetes: unexpected causes of death. *Ann Fam Med.* 2009;7(5):414-421.
232. Duffy FF, Chung H, Trivedi M, Rae DS, Regier DA, Katzelnick DJ. Systematic use of patient-rated depression severity monitoring: is it helpful and feasible in clinical psychiatry? *Psychiatr Serv.* 2008;59(10):1148-1154.
233. Kelly RH, Russo J, Katon W. Somatic complaints among pregnant women cared for in obstetrics: normal pregnancy or depressive and anxiety symptom amplification revisited? *Gen Hosp Psychiatry.* 2001;23(3):107-113.
234. Walitt B, Fitzcharles MA, Hassett AL, Katz RS, Hauser W, Wolfe F. The longitudinal outcome of fibromyalgia: a study of 1555 patients. *The Journal of rheumatology.* 2011;38(10):2238-2246.
235. Gruson KI, Pillai G, Vanadurongwan B, Parsons BO, Flatow EL. Early clinical

**Colorado Division of Workers' Compensation  
COMPREHENSIVE PSYCHOLOGICAL TESTING**

- results following staged bilateral primary total shoulder arthroplasty. *J Shoulder Elbow Surg.* 2010;19(1):137-142.
236. Carreon LY, Glassman SD, Kantamneni NR, Mugavin MO, Djurasovic M. Clinical outcomes after posterolateral lumbar fusion in workers' compensation patients: a case-control study. *Spine (Phila Pa 1976).* 2010;35(19):1812-1817.
237. Atlas SJ, Tosteson TD, Blood EA, Skinner JS, Pransky GS, Weinstein JN. The impact of workers' compensation on outcomes of surgical and nonoperative therapy for patients with a lumbar disc herniation: SPORT. *Spine (Phila Pa 1976).* 2010;35(1):89-97.
238. Smith MT, Klick B, Kozachik S, et al. Sleep onset insomnia symptoms during hospitalization for major burn injury predict chronic pain. *Pain.* 2008;138(3):497-506.
239. Morone NE, Greco CM, Weiner DK. Mindfulness meditation for the treatment of chronic low back pain in older adults: a randomized controlled pilot study. *Pain.* 2008;134(3):310-319.
240. Deberard MS, Lacaille RA, Spielmans G, Colledge A, Parlin MA. Outcomes and presurgery correlates of lumbar discectomy in Utah Workers' Compensation patients. *Spine J.* 2008.
241. Trief PM, Ploutz-Snyder R, Fredrickson BE. Emotional health predicts pain and function after fusion: a prospective multicenter study. *Spine.* 2006;31(7):823-830.
242. O'Dowd H, Gladwell P, Rogers CA, Hollinghurst S, Gregory A. Cognitive behavioural therapy in chronic fatigue syndrome: a randomised controlled trial of an outpatient group programme. *Health Technol Assess.* 2006;10(37):iii-iv, ix-x, 1-121.
243. Kennedy CA, Haines T, Beaton DE. Eight predictive factors associated with response patterns during physiotherapy for soft tissue shoulder disorders were identified. *J Clin Epidemiol.* 2006;59(5):485-496.
244. Klaber Moffett JA, Jackson DA, Richmond S, et al. Randomised trial of a brief physiotherapy intervention compared with usual physiotherapy for neck pain patients: outcomes and patients' preference. *Bmj.* 2005;330(7482):75.
245. Haas M, Group E, Muench J, et al. Chronic disease self-management program for low back pain in the elderly. *J Manipulative Physiol Ther.* 2005;28(4):228-237.
246. Freeman BJ, Fraser RD, Cain CM, Hall DJ, Chapple DC. A randomized, double-blind, controlled trial: intradiscal electrothermal therapy versus placebo for the treatment of chronic discogenic low back pain. *Spine.* 2005;30(21):2369-2377; discussion 2378.
247. Fairbank J, Frost H, Wilson-MacDonald J, Yu LM, Barker K, Collins R. Randomised controlled trial to compare surgical stabilisation of the lumbar spine with an intensive rehabilitation programme for patients with chronic low back pain: the MRC spine stabilisation trial. *BMJ.* 2005;330(7502):1233.
248. Derby R, Lettice JJ, Kula TA, Lee SH, Seo KS, Kim BJ. Single-level lumbar fusion in chronic discogenic low-back pain: psychological and emotional status as a predictor of outcome measured using the 36-item Short Form. *J Neurosurg Spine.* 2005;3(4):255-261.
249. Smith GC, Trauer T, Kerr PG, Chadban SJ. Prospective psychosocial monitoring of living kidney donors using the Short Form-36 health survey: results at 12 months. *Transplantation.* 2004;78(9):1384-1389.
250. Smith BH, Elliott AM, Hannaford PC, Chambers WA, Smith WC. Factors related to the onset and persistence of chronic back pain in the community: results from a general population follow-up study. *Spine.* 2004;29(9):1032-1040.
251. Ostelo RW, de Vet HC, Knol DL, van den Brandt PA. 24-item Roland-Morris Disability Questionnaire was preferred out of six functional status questionnaires for post-lumbar disc surgery. *J Clin Epidemiol.* 2004;57(3):268-276.
252. Hauser W, Dietz N, Steder-Neukamm U, Janke KH, Stallmach A. Biopsychosocial determinants of health-related quality of life after ileal pouch anal anastomosis for ulcerative colitis. *Inflamm Bowel Dis.* 2004;10(4):399-407.
253. Dysvik E, Lindstrom TC, Eikeland OJ, Natvig GK. Health-related quality of life and pain beliefs among people suffering from chronic pain. *Pain Manag Nurs.* 2004;5(2):66-74.
254. Bingefors K, Isacson D. Epidemiology, comorbidity, and impact on health-related quality of life of self-reported headache and musculoskeletal pain--a gender perspective. *Eur J Pain.* 2004;8(5):435-450.
255. Booker EA, Haig AJ, Geisser ME, Yamakawa K. Alcohol use self report in chronic back pain--relationships to psychosocial factors, function performance, and medication use. *Disabil Rehabil.* 2003;25(22):1271-1277.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

256. Naylor MR, Helzer JE, Naud S, Keefe FJ. Automated telephone as an adjunct for the treatment of chronic pain: a pilot study. *J Pain*. 2002;3(6):429-438.
257. McGregor AH, Hughes SP. The evaluation of the surgical management of nerve root compression in patients with low back pain: Part 1: the assessment of outcome. *Spine*. 2002;27(13):1465-1470.
258. Gotze C, Slomka A, Gotze HG, Potzl W, Liljenqvist U, Steinbeck J. [Long-term results of quality of life in patients with idiopathic scoliosis after Harrington instrumentation and their relevance for expert evidence]. *Z Orthop Ihre Grenzgeb*. 2002;140(5):492-498.
259. Jensen IB, Bergstrom G, Ljungquist T, Bodin L, Nygren AL. A randomized controlled component analysis of a behavioral medicine rehabilitation program for chronic spinal pain: are the effects dependent on gender? *Pain*. 2001;91(1-2):65-78.
260. Dahl B, Gehrchen PM, Kiaer T, Blyme P, Tondevold E, Bendix T. Nonorganic pain drawings are associated with low psychological scores on the preoperative SF-36 questionnaire in patients with chronic low back pain. *Eur Spine J*. 2001;10(3):211-214.
261. Menefee LA, Frank ED, Doghramji K, et al. Self-reported sleep quality and quality of life for individuals with chronic pain conditions. *Clin J Pain*. 2000;16(4):290-297.
262. McKee MD, Yoo DJ. The effect of surgery for rotator cuff disease on general health status. Results of a prospective trial. *J Bone Joint Surg Am*. 2000;82-A(7):970-979.
263. Nork SE, Hu SS, Workman KL, Glazer PA, Bradford DS. Patient outcomes after decompression and instrumented posterior spinal fusion for degenerative spondylolisthesis. *Spine*. 1999;24(6):561-569.
264. Leggett S, Mooney V, Matheson LN, et al. Restorative exercise for clinical low back pain. A prospective two-center study with 1-year follow-up. *Spine*. 1999;24(9):889-898.
265. Ghoname EA, Craig WF, White PF, et al. Percutaneous electrical nerve stimulation for low back pain: a randomized crossover study. *Jama*. 1999;281(9):818-823.
266. Ghoname EA, Craig WF, White PF, et al. Percutaneous electrical nerve stimulation for low back pain: a randomized crossover study [published erratum appears in JAMA 1999 May 19;281(19):1795] [see comments]. *Jama*. 1999;281(9):818-823.
267. Gatchel RJ, Mayer T, Dersh J, Robinson R, Polatin P. The association of the SF-36 health status survey with 1-year socioeconomic outcomes in a chronically disabled spinal disorder population. *Spine*. 1999;24(20):2162-2170.
268. Simon GE, Revicki DA, Grothaus L, Vonkorff M. SF-36 summary scores: are physical and mental health truly distinct? *Med Care*. 1998;36(4):567-572.
269. Glassman SD, Minkow RE, Dimar JR, Puno RM, Raque GH, Johnson JR. Effect of prior lumbar discectomy on outcome of lumbar fusion: a prospective analysis using the SF-36 measure. *J Spinal Disord*. 1998;11(5):383-388.
270. Thomas NW, Rea GL, Pikul BK, Mervis LJ, Irsik R, McGregor JM. Quantitative outcome and radiographic comparisons between laminectomy and laminotomy in the treatment of acquired lumbar stenosis. *Neurosurgery*. 1997;41(3):567-574; discussion 574-565.
271. Passik SD, Kirsh KL, Donaghy KB, Portenoy RK. Pain and aberrant drug-related behaviors in medically ill patients with and without histories of substance abuse. *Clin J Pain*. 2006;22(2):173-181.
272. Derogatis LR. *Brief Symptom Inventory Manual (BSI®)*. Minneapolis: Pearson Assessments; 2001.
273. Derogatis LR. *Brief Symptom Inventory 18 Manual (BSI® 18)*. Minneapolis: Pearson Assessments; 2001.
274. Jula A, Salminen JK, Saarijarvi S. Alexithymia: a facet of essential hypertension. *Hypertension*. 1999;33(4):1057-1061.
275. Breitbart W, Passik S, McDonald MV, et al. Patient-related barriers to pain management in ambulatory AIDS patients. *Pain*. 1998;76(1-2):9-16.
276. Zimmerman L, Story KT, Gaston-Johansson F, Rowles JR. Psychological variables and cancer pain. *Cancer Nurs*. 1996;19(1):44-53.
277. Fang CY, Reibel DK, Longacre ML, Rosenzweig S, Campbell DE, Douglas SD. Enhanced psychosocial well-being following participation in a mindfulness-based stress reduction program is associated with increased natural killer cell activity. *Journal of alternative and complementary medicine*. 2010;16(5):531-538.
278. Bach M, Bach D. Alexithymia in somatoform disorder and somatic disease: a comparative study. *Psychother Psychosom*. 1996;65(3):150-152.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

279. Middaugh SJ, Levin RB, Kee WG, Barchiesi FD, Roberts JM. Chronic pain: its treatment in geriatric and younger patients. *Arch Phys Med Rehabil.* 1988;69(12):1021-1026.
280. Hutten MM, Hermens HJ, Zilvold G. Differences in treatment outcome between subgroups of patients with chronic low back pain using lumbar dynamometry and psychological aspects. *Clin Rehabil.* 2001;15(5):479-488.
281. Carrard I, Rouget P, Fernandez-Aranda F, Volkart AC, Damoiseau M, Lam T. Evaluation and deployment of evidence based patient self-management support program for Bulimia Nervosa. *Int J Med Inform.* 2006;75(1):101-109.
282. Tiemens BG, Ormel J, Simon GE. Occurrence, recognition, and outcome of psychological disorders in primary care. *Am J Psychiatry.* 1996;153(5):636-644.
283. Katon W, Vitaliano PP, Russo J, Cormier L, Anderson K, Jones M. Panic disorder: epidemiology in primary care. *The Journal of family practice.* 1986;23(3):233-239.
284. De Leeuw R, Bertoli E, Schmidt JE, Carlson CR. Prevalence of post-traumatic stress disorder symptoms in orofacial pain patients. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2005;99(5):558-568.
285. Boudrez H, De Backer G. Psychological status and the role of coping style after coronary artery bypass graft surgery. Results of a prospective study. *Qual Life Res.* 2001;10(1):37-47.
286. Koh KB, Lee BK. Reduced lymphocyte proliferation and interleukin-2 production in anxiety disorders. *Psychosom Med.* 1998;60(4):479-483.
287. Koh KB, Kim DK, Kim SY, Park JK. The relation between anger expression, depression, and somatic symptoms in depressive disorders and somatoform disorders. *J Clin Psychiatry.* 2005;66(4):485-491.
288. Toomey TC, Seville JL, Mann JD, Abashian SW, Grant JR. Relationship of sexual and physical abuse to pain description, coping, psychological distress, and health-care utilization in a chronic pain sample. *Clin J Pain.* 1995;11(4):307-315.
289. Wilson L, Dworkin SF, Whitney C, LeResche L. Somatization and pain dispersion in chronic temporomandibular disorder pain. *Pain.* 1994;57(1):55-61.
290. Geertzen JH, de Bruijn-Kofman AT, de Bruijn HP, van de Wiel HB, Dijkstra PU. Stressful life events and psychological dysfunction in Complex Regional Pain Syndrome type I. *Clin J Pain.* 1998;14(2):143-147.
291. Geisser ME, Roth RS, Robinson ME. Assessing depression among persons with chronic pain using the Center for Epidemiological Studies-Depression Scale and the Beck Depression Inventory: a comparative analysis. *Clin J Pain.* 1997;13(2):163-170.
292. Jensen MP, Turner JA, Romano JM. Chronic pain coping measures: individual vs. composite scores. *Pain.* 1992;51(3):273-280.
293. Ehlert U, Heim C, Hellhammer DH. Chronic pelvic pain as a somatoform disorder. *Psychother Psychosom.* 1999;68(2):87-94.
294. Sinikallio S, Airaksinen O, Aalto T, Lehto SM, Kroger H, Viinamaki H. Coexistence of pain and depression predicts poor 2-year surgery outcome among lumbar spinal stenosis patients. *Nord J Psychiatry.* 2010;64(6):391-396.
295. Zlot SI, Herrmann M, Hofer-Mayer T, Adler M, Adler RH. A comparison of self-concept and personality disorders in women with pain accounted for by psychological factors, women with major depression, and healthy controls. *Int J Psychiatry Med.* 2001;31(1):61-71.
296. Poole H, White S, Blake C, Murphy P, Bramwell R. Depression in Chronic Pain Patients: Prevalence and Measurement. *Pain Pract.* 2009.
297. Sinikallio S, Aalto T, Airaksinen O, Lehto SM, Kroger H, Viinamaki H. Depression Is Associated With a Poorer Outcome of Lumbar Spinal Stenosis Surgery: A Two-Year Prospective Follow-up Study. *Spine (Phila Pa 1976).* 2010.
298. Sinikallio S, Aalto T, Airaksinen O, et al. Depression is associated with poorer outcome of lumbar spinal stenosis surgery. *Eur Spine J.* 2007;16(7):905-912.
299. Auerbach SM, Laskin DM, Frantsve LM, Orr T. Depression, pain, exposure to stressful life events, and long-term outcomes in temporomandibular disorder patients. *J Oral Maxillofac Surg.* 2001;59(6):628-633; discussion 634.
300. Sinikallio S, Aalto T, Lehto SM, et al. Depressive symptoms predict postoperative disability among patients with lumbar spinal stenosis: a two-year prospective study comparing two age groups. *Disabil Rehabil.* 2010;32(6):462-468.
301. Zimmer C, Florin I, Griss P, Matzen K, Basler HD. [Depressivity and successful outcome of spinal surgery]. *Schmerz.* 1996;10(2):71-79.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

302. Jungquist CR, O'Brien C, Matteson-Rusby S, et al. The efficacy of cognitive-behavioral therapy for insomnia in patients with chronic pain. *Sleep Med.* 2010;11(3):302-309.
303. Peyron R, Laurent B, Garcia-Larrea L. Functional imaging of brain responses to pain. A review and meta-analysis (2000). *Neurophysiol Clin.* 2000;30(5):263-288.
304. Daubs MD, Norvell DC, McGuire R, et al. Fusion versus nonoperative care for chronic low back pain: do psychological factors affect outcomes? *Spine.* 2011;36(21 Suppl):S96-109.
305. Sinikallio S, Aalto T, Koivumaa-Honkanen H, et al. Life dissatisfaction is associated with a poorer surgery outcome and depression among lumbar spinal stenosis patients: a 2-year prospective study. *Eur Spine J.* 2009;18(8):1187-1193.
306. Chanda ML, Alvin MD, Schnitzer TJ, Apkarian AV. Pain characteristic differences between subacute and chronic back pain. *The journal of pain : official journal of the American Pain Society.* 2011;12(7):792-800.
307. Kjellby-Wendt G, Styf JR, Carlsson SG. The predictive value of psychometric analysis in patients treated by extirpation of lumbar intervertebral disc herniation. *J Spinal Disord.* 1999;12(5):375-379.
308. Eisenberg E, Pultorak Y, Pud D, Bar-El Y. Prevalence and characteristics of post coronary artery bypass graft surgery pain (PCP). *Pain.* 2001;92(1-2):11-17.
309. Harris S, Morley S, Barton SB. Role loss and emotional adjustment in chronic pain. *Pain.* 2003;105(1-2):363-370.
310. Smith MT, Perlis ML, Haythornthwaite JA. Suicidal ideation in outpatients with chronic musculoskeletal pain: an exploratory study of the role of sleep onset insomnia and pain intensity. *Clin J Pain.* 2004;20(2):111-118.
311. Wesley AL, Gatchel RJ, Garofalo JP, Polatin PB. Toward more accurate use of the Beck Depression Inventory with chronic back pain patients. *Clin J Pain.* 1999;15(2):117-121.
312. Williams AC, Richardson PH. What does the BDI measure in chronic pain? *Pain.* 1993;55(2):259-266.
313. Beekman AT, Kriegsman DM, Deeg DJ, van Tilburg W. The association of physical health and depressive symptoms in the older population: age and sex differences. *Soc Psychiatry Psychiatr Epidemiol.* 1995;30(1):32-38.
314. Coyne JC, Brown G, Datto C, Bruce ML, Schulberg HC, Katz I. The benefits of a broader perspective in case-finding for disease management of depression: early lessons from the PROSPECT Study. *Int J Geriatr Psychiatry.* 2001;16(6):570-576.
315. Magni G, Rossi MR, Rigatti-Luchini S, Merskey H. Chronic abdominal pain and depression. Epidemiologic findings in the United States. Hispanic Health and Nutrition Examination Survey. *Pain.* 1992;49(1):77-85.
316. Atlantis E, Shi Z, Penninx BJ, Wittert GA, Taylor A, Almeida OP. Chronic medical conditions mediate the association between depression and cardiovascular disease mortality. *Soc Psychiatry Psychiatr Epidemiol.* 2012;47(4):615-625.
317. Cho MJ, Moscicki EK, Narrow WE, Rae DS, Locke BZ, Regier DA. Concordance between two measures of depression in the Hispanic Health and Nutrition Examination Survey. *Soc Psychiatry Psychiatr Epidemiol.* 1993;28(4):156-163.
318. Pincus T, Callahan LF. Depression scales in rheumatoid arthritis: criterion contamination in interpretation of patient responses. *Patient education and counseling.* 1993;20(2-3):133-143.
319. Berkman LF, Berkman CS, Kasl S, et al. Depressive symptoms in relation to physical health and functioning in the elderly. *Am J Epidemiol.* 1986;124(3):372-388.
320. Kukuk P, Lungenhausen M, Molsberger A, Endres HG. Long-term improvement in pain coping for cLBP and gonarthrosis patients following body needle acupuncture: a prospective cohort study. *Eur J Med Res.* 2005;10(6):263-272.
321. Magni G, Rigatti-Luchini S, Fracca F, Merskey H. Suicidality in chronic abdominal pain: an analysis of the Hispanic Health and Nutrition Examination Survey (HHANES). *Pain.* 1998;76(1-2):137-144.
322. Lefevre T, Singh-Manoux A, Stringhini S, et al. Usefulness of a single-item measure of depression to predict mortality: the GAZEL prospective cohort study. *European journal of public health.* 2012;22(5):643-647.
323. Fritzell P, Hagg O, Wessberg P, Nordwall A. 2001 Volvo Award Winner in Clinical Studies: Lumbar fusion versus nonsurgical treatment for chronic low back pain: a multicenter randomized controlled trial from the Swedish Lumbar Spine Study Group. *Spine.* 2001;26(23):2521-2532; discussion 2532-2524.
324. Penta M, Fraser RD. Anterior lumbar interbody fusion. A minimum 10-year follow-up. *Spine.* 1997;22(20):2429-2434.

**Colorado Division of Workers' Compensation**  
**COMPREHENSIVE PSYCHOLOGICAL TESTING**

325. Koho P, Aho S, Watson P, Hurri H. Assessment of chronic pain behaviour: reliability of the method and its relationship with perceived disability, physical impairment and function. *J Rehabil Med.* 2001;33(3):128-132.
326. Laslett M, Oberg B, Aprill CN, McDonald B. Centralization as a predictor of provocation discography results in chronic low back pain, and the influence of disability and distress on diagnostic power. *Spine J.* 2005;5(4):370-380.
327. Fritzell P, Hagg O, Wessberg P, Nordwall A. Chronic low back pain and fusion: a comparison of three surgical techniques: a prospective multicenter randomized study from the Swedish lumbar spine study group. *Spine.* 2002;27(11):1131-1141.
328. Hagg O, Fritzell P, Nordwall A. The clinical importance of changes in outcome scores after treatment for chronic low back pain. *Eur Spine J.* 2003;12(1):12-20.
329. Madan S, Boeree NR. Containment and stabilization of bone graft in anterior lumbar interbody fusion: the role of the Hartshill Horseshoe cage. *J Spinal Disord.* 2001;14(2):104-108.
330. Ng LC, Tafazal S, Sell P. The effect of duration of symptoms on standard outcome measures in the surgical treatment of spinal stenosis. *Eur Spine J.* 2006.
331. Neubauer E, Junge A, Pirron P, Seemann H, Schiltenswolf M. HKF-R 10 - Screening for predicting chronicity in acute low back pain (LBP): A prospective clinical trial. *Eur J Pain.* 2005.
332. Zoega B, Karrholm J, Lind B. Outcome scores in degenerative cervical disc surgery. *Eur Spine J.* 2000;9(2):137-143.
333. Donceel P, Du Bois M. Predictors for work incapacity continuing after disc surgery. *Scand J Work Environ Health.* 1999;25(3):264-271.
334. Arpino L, Iavarone A, Parlato C, Moraci A. Prognostic role of depression after lumbar disc surgery. *Neurol Sci.* 2004;25(3):145-147.
335. Trief PM, Grant W, Fredrickson B. A prospective study of psychological predictors of lumbar surgery outcome. *Spine.* 2000;25(20):2616-2621.
336. Carragee EJ. Psychological and functional profiles in select subjects with low back pain. *Spine J.* 2001;1(3):198-204.
337. Bassett DL, Gerke DC, Goss AN. Psychological factors in temporomandibular joint dysfunction: depression. *Aust Prosthodont J.* 1990;4:41-45.
338. Aragona M, Bancheri L, Perinelli D, et al. Randomized double-blind comparison of serotonergic (Citalopram) versus noradrenergic (Reboxetine) reuptake inhibitors in outpatients with somatoform, DSM-IV-TR pain disorder. *Eur J Pain.* 2005;9(1):33-38.
339. Greenough CG. Recovery from low back pain. 1-5 year follow-up of 287 injury-related cases. *Acta Orthop Scand Suppl.* 1993;254:1-34.
340. Hagg O, Fritzell P, Oden A, Nordwall A. Simplifying outcome measurement: evaluation of instruments for measuring outcome after fusion surgery for chronic low back pain. *Spine.* 2002;27(11):1213-1222.
341. Fuentes M, Hart-Johnson T, Green CR. The association among neighborhood socioeconomic status, race and chronic pain in black and white older adults. *J Natl Med Assoc.* 2007;99(10):1160-1169.
342. Field T, Peck M, Krugman S, et al. Burn injuries benefit from massage therapy. *J Burn Care Rehabil.* 1998;19(3):241-244.
343. Zanicchi M, Maero B, Nicola E, et al. Chronic pain in a sample of nursing home residents: prevalence, characteristics, influence on quality of life (QoL). *Arch Gerontol Geriatr.* 2008;47(1):121-128.
344. Villemure C, Bushnell MC. Cognitive modulation of pain: how do attention and emotion influence pain processing? *Pain.* 2002;95(3):195-199.
345. Bush C, Ditto B, Feuerstein M. A controlled evaluation of paraspinal EMG biofeedback in the treatment of chronic low back pain. *Health Psychol.* 1985;4(4):307-321.
346. Dworkin RH, Turk DC, Revicki DA, et al. Development and initial validation of an expanded and revised version of the Short-form McGill Pain Questionnaire (SF-MPQ-2). *Pain.* 2009;144(1-2):35-42.
347. Salter MW, Henry JL. Differential responses of nociceptive vs. non-nociceptive spinal dorsal horn neurones to cutaneously applied vibration in the cat. *Pain.* 1990;40(3):311-322.
348. McFadden IJ, Woitalla VF. Differing reports of pain perception by different personalities in a patient with chronic pain and multiple personality disorder. *Pain.* 1993;55(3):379-382.
349. Roth RS, Geisser ME. Educational achievement and chronic pain disability: mediating role of pain-related cognitions. *Clin J Pain.* 2002;18(5):286-296.
350. Cornwall A, Donderi DC. The effect of experimentally induced anxiety on the

**Colorado Division of Workers' Compensation  
COMPREHENSIVE PSYCHOLOGICAL TESTING**

- experience of pressure pain. *Pain*. 1988;35(1):105-113.
351. Seminowicz DA, Wideman TH, Naso L, et al. Effective treatment of chronic low back pain in humans reverses abnormal brain anatomy and function. *The Journal of neuroscience : the official journal of the Society for Neuroscience*. 2011;31(20):7540-7550.
352. Cook AJ, Roberts DA, Henderson MD, Van Winkle LC, Chastain DC, Hamill-Ruth RJ. Electronic pain questionnaires: a randomized, crossover comparison with paper questionnaires for chronic pain assessment. *Pain*. 2004;110(1-2):310-317.
353. Terry R, Brodie EE, Niven CA. Exploring the Phenomenology of Memory for Pain: Is Previously Experienced Acute Pain Consciously Remembered or Simply Known? *J Pain*. 2007.
354. Melzack R. From the gate to the neuromatrix. *Pain*. 1999;Suppl 6:S121-126.
355. Sorge RE, Trang T, Dorfman R, et al. Genetically determined P2X7 receptor pore formation regulates variability in chronic pain sensitivity. *Nat Med*. 2012;18(4):595-599.
356. Bosley BN, Weiner DK, Rudy TE, Granieri E. Is chronic nonmalignant pain associated with decreased appetite in older adults? Preliminary evidence. *Journal of the American Geriatrics Society*. 2004;52(2):247-251.
357. Knoop H, Stulemeijer M, Prins JB, van der Meer JW, Bleijenberg G. Is cognitive behaviour therapy for chronic fatigue syndrome also effective for pain symptoms? *Behav Res Ther*. 2007;45(9):2034-2043.
358. Wilson KG, Eriksson MY, D'Eon JL, Mikail SF, Emery PC. Major depression and insomnia in chronic pain. *Clin J Pain*. 2002;18(2):77-83.
359. Melzack R. The McGill pain questionnaire: from description to measurement. *Anesthesiology*. 2005;103(1):199-202.
360. Melzack R. The McGill Pain Questionnaire: major properties and scoring methods. *Pain*. 1975;1(3):277-299.
361. Fitzcharles MA, Ste-Marie PA, Gamsa A, Ware MA, Shir Y. Opioid use, misuse, and abuse in patients labeled as fibromyalgia. *The American journal of medicine*. 2011;124(10):955-960.
362. Katz J, Melzack R. Pain 'memories' in phantom limbs: review and clinical observations. *Pain*. 1990;43(3):319-336.
363. Melzack R. Pain and the neuromatrix in the brain. *J Dent Educ*. 2001;65(12):1378-1382.
364. Melzack R. Pain: past, present and future. *Can J Exp Psychol*. 1993;47(4):615-629.
365. De Koninck Y, Henry JL. Peripheral vibration causes an adenosine-mediated postsynaptic inhibitory potential in dorsal horn neurons of the cat spinal cord. *Neuroscience*. 1992;50(2):435-443.
366. Herrero AM, Ramirez-Maestre C, Gonzalez V. Personality, cognitive appraisal and adjustment in chronic pain patients. *The Spanish journal of psychology*. 2008;11(2):531-541.
367. Tota-Faucette ME, Gil KM, Williams DA, Keefe FJ, Goli V. Predictors of response to pain management treatment. The role of family environment and changes in cognitive processes. *Clin J Pain*. 1993;9(2):115-123.
368. Scott LE, Clum GA, Peoples JB. Preoperative predictors of postoperative pain. *Pain*. 1983;15(3):283-293.
369. Rintala DH, Holmes SA, Fiess RN, Courtade D, Loubser PG. Prevalence and characteristics of chronic pain in veterans with spinal cord injury. *J Rehabil Res Dev*. 2005;42(5):573-584.
370. Tang NK, Wright KJ, Salkovskis PM. Prevalence and correlates of clinical insomnia co-occurring with chronic back pain. *J Sleep Res*. 2007;16(1):85-95.
371. Dzioba RB, Doxey NC. A prospective investigation into the orthopaedic and psychologic predictors of outcome of first lumbar surgery following industrial injury. *Spine*. 1984;9(6):614-623.
372. Burchiel KJ, Anderson VC, Brown FD, et al. Prospective, multicenter study of spinal cord stimulation for relief of chronic back and extremity pain. *Spine*. 1996;21(23):2786-2794.
373. McCreary CP, Clark GT, Merrill RL, Flack V, Oakley ME. Psychological distress and diagnostic subgroups of temporomandibular disorder patients. *Pain*. 1991;44(1):29-34.
374. Ndao-Brumblay SK, Green CR. Racial differences in the physical and psychosocial health among black and white women with chronic pain. *J Natl Med Assoc*. 2005;97(10):1369-1377.
375. Goldberg RT, Pachas WN, Keith D. Relationship between traumatic events in childhood and chronic pain. *Disabil Rehabil*. 1999;21(1):23-30.
376. Holzberg AD, Robinson ME, Geisser ME. The relationship of cognitive distortion to depression in chronic pain: the role of



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- ambiguity and desirability in self-ratings. *Clin J Pain*. 1993;9(3):202-206.
377. Marin R, Cyhan T, Miklos W. Sleep disturbance in patients with chronic low back pain. *American journal of physical medicine & rehabilitation / Association of Academic Physiatrists*. 2006;85(5):430-435.
378. Smith MT, Edwards RR, Robinson RC, Dworkin RH. Suicidal ideation, plans, and attempts in chronic pain patients: factors associated with increased risk. *Pain*. 2004;111(1-2):201-208.
379. Koumantakis GA, Watson PJ, Oldham JA. Trunk muscle stabilization training plus general exercise versus general exercise only: randomized controlled trial of patients with recurrent low back pain. *Phys Ther*. 2005;85(3):209-225.
380. Abbott FV, Fraser MI. Use and abuse of over-the-counter analgesic agents. *J Psychiatry Neurosci*. 1998;23(1):13-34.
381. Petzke F, Gracely RH, Park KM, Ambrose K, Clauw DJ. What do tender points measure? Influence of distress on 4 measures of tenderness. *J Rheumatol*. 2003;30(3):567-574.
382. Manchikanti L, Singh V, Falco FJ, Cash KA, Pampati V, Fellows B. Comparative effectiveness of a one-year follow-up of thoracic medial branch blocks in management of chronic thoracic pain: a randomized, double-blind active controlled trial. *Pain physician*. 2010;13(6):535-548.
383. Manchikanti L, Singh V, Falco FJ, Cash KA, Pampati V. Evaluation of lumbar facet joint nerve blocks in managing chronic low back pain: a randomized, double-blind, controlled trial with a 2-year follow-up. *Int J Med Sci*. 2010;7(3):124-135.
384. Manchikanti L, Singh V, Falco FJ, Cash KA, Pampati V. Evaluation of the effectiveness of lumbar interlaminar epidural injections in managing chronic pain of lumbar disc herniation or radiculitis: a randomized, double-blind, controlled trial. *Pain physician*. 2010;13(4):343-355.
385. Manchikanti L, Cash KA, McManus CD, Pampati V, Benyamin RM. Preliminary results of a randomized, double-blind, controlled trial of fluoroscopic lumbar interlaminar epidural injections in managing chronic lumbar discogenic pain without disc herniation or radiculitis. *Pain physician*. 2010;13(4):E279-292.
386. Manchikanti L, Pampati V, Cash KA. Protocol for evaluation of the comparative effectiveness of percutaneous adhesiolysis and caudal epidural steroid injections in low back and/or lower extremity pain without post surgery syndrome or spinal stenosis. *Pain physician*. 2010;13(2):E91-E110.
387. Iverson GL, Le Page J, Koehler BE, Shojania K, Badii M. Test of Memory Malingering (TOMM) scores are not affected by chronic pain or depression in patients with fibromyalgia. *Clin Neuropsychol*. 2007;21(3):532-546.
388. Kumar K, Malik S, Demeria D. Treatment of chronic pain with spinal cord stimulation versus alternative therapies: cost-effectiveness analysis. *Neurosurgery*. 2002;51(1):106-115; discussion 115-106.
389. Block AR, Ohnmeiss DD, Guyer RD, Rashbaum RF, Hochschuler SH. The use of presurgical psychological screening to predict the outcome of spine surgery. *Spine J*. 2001;1(4):274-282.
390. American College of Occupational and Environmental Medicine. *Chronic pain treatment guidelines*. 2nd ed. Beverly Farms, Mass.: OEM Press; 2008.
391. Work Loss Data Institute. *Official Disability Guidelines*. Encinitas, CA: Work Loss Data Institute; 2009.
392. Colorado Division of Workers' Compensation. Rule 17, Exhibit 9: Chronic Pain Disorder Medical Treatment Guidelines. Colorado Department of Labor and Employment: Division of Worker Compensation 2012.
393. Bruns D, Mueller K, Warren PA. A Review of Evidence-based Biopsychosocial Laws Governing The Treatment of Pain and Injury. *Psychological Injury and Law*. 2010;3(3):169-181.
394. Bruns, D. (2014). Clinical and forensic standards for the psychological assessment of patients with chronic pain. *Psychological Injury and Law*, 7(4), 297-316.