

## ANXIETY & MMPI

Abell, TL; Cutts, TF, and Cooper, T. Effect of cisapride therapy for severe dyspepsia on gastrointestinal symptoms and quality of life. *Scand J Gastroenterol Suppl.* 1993; 195: 60-3; Discussion 63-4.

Abstract: Quality of life measures have received little attention in evaluation of therapy for dyspepsia. To examine the effect of cisapride on gastrointestinal symptoms and quality of life measures, we studied eight patients with chronic, severe dyspepsia, before and after therapy with cisapride (20 mg three times daily) for 12 months. Gastrointestinal (GI) Total Symptom Score (TSS), Overall Patient Assessment (OPA), and quality of life by both trait (Minnesota Multiphasic Personality Inventory (MMPI)) and physical function (Sickness Impact Profile (SIP)) were measured at base line and at month 12 of cisapride therapy. Results showed significant improvement in TSS, OPA, and the MMPI Depression and Anxiety scales (all,  $p < 0.05$ ). Improvement in the SIP physical dimension score approached significance ( $p = 0.065$ ). We conclude that, in this group of patients with severe dyspepsia, both GI symptoms and quality of life measures improved with 12 months of cisapride therapy. These quality of life measures may prove useful in evaluating the efficacy of drug treatment for dyspepsia.

Albrecht, NN; Talbert, FS; Albrecht, JW; Boudewyns, PA; Hyer, LA; Touze, J., and Lemmon CR. A comparison of MMPI and MMPI 2 in PTSD assessment. *J Clin Psychol.* 1994 Jul; 50(4): 578-85.

Abstract: A sample of 47 Vietnam veterans with the diagnosis of combat-related Post-Traumatic Stress Disorder (PTSD) was administered the MMPI and MMPI-2. Pairwise comparisons were performed on the clinical scales, Harris Lingoes subscales, and scales relevant to the assessment of PTSD. Correlational analyses were performed as well. Hit rates of high-point pairs were compared across the tests. The results suggest a high degree of congruence between tests. Differences were seen on evaluations of some scales between tests that may influence interpretation and treatment.

Allen, SN. Psychological assessment of post traumatic stress disorder. *Psychometrics, current trends, and future directions. Psychiatr Clin North Am.* 1994 Jun; 17(2): 327-49.

Abstract: As is clear from the foregoing, our knowledge of psychometric assessment of PTSD has expanded greatly. There are now many instruments with known psychometric properties that are helpful in elucidating aspects of PTSD, such as comorbidities with other psychiatric conditions and potential factors in PTSD vulnerability or resistance. The "old" standards, such as the SCID, IES, M-PTSD, PK-MMPI, have shown their utility and significantly advanced the field. Several newer measures (the Penn Inventory, CAPS, PTSD-I) will significantly improve clinical and research applications. Exploration of little quantified aspects of PTSD, e.g., cognitive functioning, with established techniques (WAIS-R, Wisconsin Card Sort, California Verbal Learning Test) and technology (Stroop interference, Rorschach, odor-induced EEG changes), holds promise for improving comprehensive assessment. Much work remains to be done, especially in adapting the instruments well known in a combat-related PTSD setting to civilian-related trauma. Normative data bases need to be developed. Further, efforts must be made to explore carefully possible gender and racial/cultural influences on the assessment of PTSD.

Archer, RP; Gordon, RA; Anderson, GL, and Giannetti, RA. MMPI special scale clinical correlates for adolescent inpatients. *J Pers Assess.* 1989 Winter; 53(4): 654-64.

Abstract: Little research has focused on the clinical correlates of adolescents' Minnesota Multiphasic Personality Inventory (MMPI) special scale responses. We investigated the clinical correlates of the MacAndrew Alcoholism Scale (MAC), Anxiety (A), Repression (R), and Ego Strength (Es) scales, based on self-reported data from 68 inpatient adolescents and ratings by their nursing staff and individual therapists. Parametric and nonparametric analyses revealed patterns of clinically relevant descriptors for these scales in a manner largely consistent with findings derived from studies of adult respondents. Results are discussed in terms of implications for interpretation of each of these special scales and in relation to a general approach to understanding adolescents' MMPI profiles.

Arque, JM; Segura, R., and Torrubia, R. Correlation of thyroxine and thyroid stimulating hormone with personality measurements: a study in psychosomatic patients and healthy subjects. *Neuropsychobiology.* 1987; 18(3): 127-33.

Abstract: A comparative study performed in psychosomatic patients and healthy subjects reveals different profiles of thyroxine (T4) and thyroid-stimulating hormone (TSH) correlations with personality measurements (Minnesota Multiphasic Personality Inventory (MMPI); Sensation-Seeking Scale (SSS), and Susceptibility to Punishment Scale (SP). Three distinct sets of results may be enumerated, namely: (1) a negative correlation between sensation-seeking and TSH; (2) a positive correlation between the most indicative scales predisposing to depression-anxiety (hypochondriasis, depression, social introversion, susceptibility to punishment) and T4, and (3) the Hypomania Scale (Ma) showed a significant negative correlation with T4 in the patient group and a positive but nonsignificant

relationship in the healthy group.

Bachiocco, V.; Morselli, AM, and Carli, G. Self control expectancy and postsurgical pain: relationships to previous pain, behavior in past pain, familial pain tolerance models, and personality. *J Pain Symptom Manage.* 1993 May; 8(4): 205-14.

Abstract: The importance of self-control expectancy on postsurgical pain was studied in 126 patients enrolled in a particular clinical setting. The contribution of previous pain experiences, past behaviors, vicarious experiences, and personality traits to self-control expectancy reported by patients was also investigated. To collect this information, a specific questionnaire and a semistructured interview were given before surgery. Minnesota Multiphasic Personality Inventory (MMPI), Eysenck Personality Inventory (EPI), and State-Trait Anxiety Inventory (STAI) personality tests were also administered. Postsurgical pain was assessed by measuring intensity (Visual Analogue Scale, VAS), latency (hr), and duration (days). Results show that expected emotional coping response is crucially related to the whole pain experience (intensity, latency, and duration). Self-control expectancy is associated with mastery behaviors in previous pains, vicarious experiences, and personality traits. These findings suggest that the knowledge of patients' beliefs about their ability to acquire and maintain control over impending pain is useful in predicting and managing postsurgical pain.

Bachiocco, V.; Morselli, Labate AM; Rusticali, AG; Bragaglia, R.; Mastrorilli, M., and CARli, G. Intensity, latency and duration of post thoracotomy pain: relationship to personality traits. *Funct Neurol.* 1990 Oct-Dec; 5(4): 321-32.

Abstract: The relationship between personality traits and post-surgical pain was studied in 126 patients submitted to a particular set of procedures. The personality was studied by MMPI, STAI, EPI tests before surgery. After surgery, pain intensity was positively related to duration, and pain latency negatively related to both intensity and duration. According to multiple regression analysis, pain intensity was found to be predictable from both the state anxiety and psychoasthenia scales, pain latency from state anxiety and masculinity/femininity, pain duration from aggressivity and hysteria. Results suggest that personality traits constitute strong modulatory factors of the overall pain experience.

Bachiocco, V.; Scesi, M.; Morselli, AM, and Carli, G. Individual pain history and familial pain tolerance models: relationships to post surgical pain. *Clin J Pain.* 1993 Dec; 9(4): 266-71.

Abstract: OBJECTIVES: (a) To investigate the influence of previous pain experience and familial pain tolerance models on postsurgical pain; (b) to investigate the effect of personality traits on vicarious learning. DESIGN: Before surgery, the patients completed the Minnesota Multiphasic Personality Inventory (MMPI), Eysenck Personality Inventory (EPI), and State-Trait Anxiety Inventory (STAI) personality tests. They also underwent a semi-structured interview to collect information on familial pain tolerance models and their own pain history. Postthoracotomy pain was assessed by measuring its latency (h), intensity (VAS 0-10), and duration (days). SETTING: A unique protocol to minimize the use of pain killers and encourage the adoption of coping strategies to face postsurgical pain was in use in the Thoracic Department. PATIENTS: A total of 126 patients who were free from chronic pain and undergoing thoracic surgery entered the study. OUTCOME: Most patients recalled a history of surgical or medical pain and good pain tolerance models in their original family. An almost equal number denied pain or had good pain tolerance models in their present family. Only a few patients reported poor tolerance models. RESULTS: Patients who had previously been subjected to medical pain experienced a greater intensity of pain. In addition, those who had reported poor tolerance in the original family experienced both earlier and more severe pain. Some patients' personality traits were related to familial pain tolerance models. CONCLUSIONS: We conclude that knowledge of an individual's pain history and familial pain tolerance models can be useful in predicting and managing postsurgical pain.

Ballegaard, S.; Karpatschoff, B.; Holck, JA; Meyer, CN, and Trojaborg, W. Acupuncture in angina pectoris: do psycho social and neurophysiological factors relate to the effect? *Acupunct Electrother Res.* 1995 Apr-Jul; 20(2): 101-16.

Abstract: We studied the effect of acupuncture in 49 patients with angina pectoris with focus on its relationship to psycho-social factors and changes in skin temperature, pain thresholds, and pain tolerance thresholds. No significant influence from patient expectation, social stress (strain) or profiles of the Minnesota Multiphasic Personality Inventory (MMPI) was found (all  $p > 0.1$ ). Acupuncture slightly increased exercise tolerance (median 7%), the difference in Systolic Blood Pressure-Heart Rate Product between rest and maximal exercise (delta PRP) (median 3%), and the time to onset of pain (median 10%); decreased nitroglycerin consumption (median 58%) and anginal attack rate (median 38%). Improvement in exercise tolerance was significantly correlated to an improvement in delta PRP (correlation coefficient = 0.7;  $p < 0.0001$ ) but not to time of myocardial ischemia (correlation coefficient = 0.1;

$p = 0.1$ ). Compared with 28 patients with a less pronounced anti-anginal effect, the 21 patients with a pronounced effect had a significant increase in local skin temperature, but had no significant change in distant skin temperature and pain thresholds. It is concluded that acupuncture, due to hemodynamic alterations, might have a specific effect on angina pectoris in addition to drug treatments.

Barefoot, JC; Beckham, JC; Peterson, BL; Haney, TL, and Williams, RB Jr. Measures of neuroticism and disease status in coronary angiography patients. *J Consult Clin Psychol.* 1992 Feb; 60(1): 127-32.

Abstract: A high percentage of patients who undergo diagnostic angiography because they have chest pain are found to be free of significant coronary artery disease. To examine the psychological characteristics of these patients, we used several Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943) measures to assess the relationships between different aspects of neuroticism and coronary artery disease severity (CADSEV) in a sample of 1,462 angiography patients. The Conversion V profile was inversely and most strongly related to CADSEV. Single high scores on hypochondriasis or hysteria were also inversely related to CADSEV, but psychasthenia and Taylor Manifest Anxiety Scale (TMA; Taylor, 1953) scores were not. Using measures derived by a factor analysis of the MMPI, items relating somatic complaints were inversely related to CADSEV, but a measure of general neuroticism was not. These results support the hypothesis that the association between neuroticism and angiographic findings may be specific to a particular aspect of neuroticism, somatic preoccupation. The implications for neuroticism measurement and clinical practice are discussed.

Ben, Porath YS; McCully, E., and Almagor, M. Incremental validity of the MMPI 2 Content Scales in the assessment of personality and psychopathology by self report. *J Pers Assess.* 1993 Dec; 61(3): 557-75.

Abstract: The incremental contribution of the MMPI-2 Content Scales to the prediction of scores on self-report measures of personality and psychopathology was investigated. The MMPI-2, Beck Depression Inventory, State-Trait Personality Inventory, and Symptom Checklist-90-Revised were administered to 596 subjects: 339 women and 257 men. Zero-order correlational analyses indicated that both clinical and Content Scales correlated with each of the criterion measures. In all but one case, an MMPI-2 Content Scale was found to have the highest correlation with the extratest variables. Combined hierarchical, stepwise regression analyses demonstrated that the MMPI-2 Content Scales possess incremental validity vis-a-vis the clinical scales for both genders in relation to all of the criterion measures. Additional analyses indicated that the MMPI-2 clinical scales also possess incremental validity vis-a-vis the Content Scales. However, the incremental contribution of the clinical scales was of lesser magnitude. Implications of these findings for test interpretation and future research with the MMPI-2 are discussed.

Berk, E.; Black, J.; Locastro, J.; Wickis, J.; Simpson, T., and Penk, W. Traumatogenicity: effects of self reported noncombat trauma on MMPIs of male Vietnam combat and noncombat veterans treated for substance abuse. *J Clin Psychol.* 1989 Sep; 45(5): 704-8.

Abstract: A recent review of the literature on Post-Traumatic Stress Disorder (PTSD) and the MMPI has shown that all previously published studies have been limited to clinical groups whose trauma occurred in Vietnam combat. The purpose of this study was to test hypotheses that predict higher MMPI and PTSD scale scores among combat veterans who differ in degrees of noncombat traumas. Results support predictions. Those who reported more noncombat traumas attain significantly higher MMPI scores for scales F, Hypochondriasis, Hysteria, Psychopathic Deviate, Psychasthenia, Schizophrenia, Mania, Social Introversion, and an MMPI PTSD score (Keane, Malloy, & Fairbank, 1984). Moreover, noncombat effects are manifested differentially: Combat veterans with higher noncombat trauma evidence greater social withdrawal, whereas noncombat veterans who report higher noncombat trauma are characterized by higher anxiety. MMPI elevations were progressively higher as groups increased in degrees of combat and noncombat trauma: noncombat and low combat trauma veterans were the better adjusted, and combat veterans with higher noncombat trauma were the worst adjusted. Results provide descriptive validity for PTSD as a construct and underscore the importance of assessing frequency and intensity, as well as types of traumas and stresses, in the background histories of substance abusers and other clinical groups as well.

Biondi, M.; Peronti, M.; Pacitti, F.; Pancheri, P.; Pacifici, R.; Altieri, I.; Paris, L., and Zuccaro, P. Personality, endocrine and immune changes after eight months in healthy individuals under normal daily stress. *Psychother Psychosom.* 1994; 62(3-4): 176-84.

Abstract: The impact of stress and its neuroendocrine correlates on immune function are well established and individual variations could be attributed to modulation by personality characteristics. To assess the influence of everyday life stress and personality on neuroendocrine and immune function, we administered, to 18 healthy adults, the Minnesota Multiphasic Personality Inventory (MMPI) to assess their personality, the State-Trait Anxiety Inventory to measure anxiety, the Reaction Scheme Test to assess their coping reaction style, the Life Events Survey

to assess the impact of stressful life events, and the Subjective Stress Questionnaire to assess perceived stress. The endocrine evaluation comprised prolactin, cortisol, and growth hormone plasma levels, while the immunological evaluation assessed T4, T8, and T11 lymphocyte percentages, as well as natural killer cell count and activity. All evaluations were made at baseline and after 8 months. We found a reduction of the T11 lymphocyte percentage to be accompanied by a reduction in the scores of the MMPI scale of Subtle Defensiveness and by an increase in the scores of the Social Introversion Scale. A positive correlation was found between prolactin and T4 lymphocyte percentage. These preliminary data show that some personality and endocrine measures correlate with immune function.

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Blake, DD; Penk, WE; Mori, DL; Kleespies, PM; Walsh, SS, and Keane, TM. Validity and clinical scale comparisons between the MMPI and MMPI 2 with psychiatric inpatients. *Psychol Rep.* 1992 Feb; 70(1): 325-32. Abstract: This study was designed to investigate the comparability of the original MMPI (1950) and the MMPI-2 (1989) with a psychiatric patient population. 34 male and 3 female patients, shortly after admission to one of two acute psychiatry units, completed the old and revised versions of the MMPI. Paired t tests indicated but scant differences for raw scores, while many more differences were found among T scores for validity, clinical, and supplemental scales. Analyses, however, showed all scales on the two forms to be highly correlated. Analysis of the high-point and two-point codes across the two administrations also showed relative stability, although the proportion of Scales 2 (Depression) and 8 (Schizophrenia) decreased, while those for Scales 6 (Paranoia) and 7 (Psychasthenia) increased markedly in the MMPI-2 protocols. Examination of each version's discriminability among mood- and thought-disordered subsamples suggested that the MMPI provides slightly better delineation between diagnostic classes. Discriminant function analyses showed that there were essentially no differences between the two forms in the accurate classification of clinical and nonclinical groups. The findings reported here provide support for the MMPI-2; despite modification, the newer form retains the advantages of the original MMPI. Differences found here may be unique to psychiatric patients and their patterns of MMPI/MMPI-2 equivalence and may not generalize to other special populations.

Blanchard, EB; Scharff, L.; Payne, A.; Schwarz, SP; Suls, JM, and Malamood, H. Prediction of outcome from cognitive behavioral treatment of irritable bowel syndrome. *Behav Res Ther.* 1992 Nov; 30(6): 647-50.

Abstract: The presence of a diagnosable Axis I psychiatric disorder predicted significantly (P less than 0.001) lower likelihood of significant improvement among 90 irritable bowel syndrome patients given cognitive and behavioral treatments to help the disorder. Other psychological tests, including the MMPI, BDI, STAI, as well as demographic variables, failed to yield significant prediction.

Block, P. Measurement and interrelations of psychiatric symptomatology in inpatients. *Psychol Rep.* 1991 Jun; 68(3 Pt 1): 1055-6.

Abstract: For 152 psychiatric inpatients scores on the Beck Depression Scale, State form of the State-Trait Anxiety Inventory, the Self-report Inventory, Hopelessness Scale and 3 MMPI scales, Hypochondriasis, Schizophrenia, and Hypomania, were factor analyzed. The two factors appeared to confirm Gotlib's 1984 suggestion that such questionnaires measure general distress, as responding endorses negative affect.

Bowler, RM; Mergler, D.; Huel, G., and Cone, JE. Aftermath of a chemical spill: psychological and physiological

sequelae. *Neurotoxicology*. 1994 Fall; 15(3): 723-9.

Abstract: Psychological, and psychophysiological sequelae were studied in a community which had experienced a railroad chemical spill of 19,000 gallons of the toxic pesticide metam sodium. Information was collected on 350 persons living in the area of the spill (spill residents) and 114 nonexposed controls, recruited using a randomized sampling strategy, from a nearby similar, but unexposed control town. Psychological measures used were the MMPI-2, POMS, IES Scale, Environmental Worry, Perceived Social Support and Perceived Control Scale. Physiological measurements were two measurements of blood pressure, pulse, and salivary cortisol level, taken both at the beginning and the conclusion of the study. Demographic and medical information was asked in a Questionnaire. Results indicate greater levels of depression, anxiety, and somatic symptoms in the spill residents in addition to greater environmental worry and lower perceived social support. Spill odor perception was related to increased psychological and physiological sequelae. The spill residents had higher blood pressure and less fluctuation of cortisol levels than the controls. Comparison of spill residents who were litigants and those who were not, indicates no differences for blood pressure, pulse, and cortisol, MMPI-2, Environmental Worry and the Control Scale. Litigants scored slightly higher on the IES, Intrusion and the POMS scales. No dose/response relationship between distance to the river and evacuation status was obtained. The chemical spills was associated with a wide variety of psychological and physiological reactions.

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Abstract: Psychological, psychosocial, and psychophysiological sequelae were studied in a community which had experienced a railroad chemical spill of 19,000 gallons of the toxic pesticide metam sodium. Two hundred twenty exposed residents were compared to 114 controls and paired on age, education, gender, race, and number of children. A clinical interview and physiological measurements (blood pressure, pulse, and cortisol level) were taken, the MMPI-2, IES Scale, Mood Scale, Environmental Worry, Perceived Social Support, and Perceived Control Scale and a questionnaire were administered. Results indicated greater levels of depression, anxiety, and somatic symptoms in the spill residents in addition to greater environmental worry and lower perceived social support. Spill residents had higher blood pressure and less fluctuation of cortisol levels than controls. No difference on litigation status was obtained except on the IES, Intrusion and the POMS scales. Chemical disasters are associated with a wide variety of psychological, psychosocial, and physiological distress.

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Bowler, RM; Mergler, D.; Rauch, SS; Harrison, R., and Cone, J. Affective and personality disturbances among female former microelectronics workers. *J Clin Psychol*. 1991 Jan; 47(1): 41-52.

Abstract: The production and manufacture of microelectronic components, carried out primarily by women workers, require extensive use of organic solvents. Affective and personality disturbances frequently have been associated with organic solvent toxicity. A group of women, former microelectronics workers (N = 70), primarily of Hispanic origin (77.1%) but raised in the United States, were evaluated for affective and personality disturbance with the MMPI. Profiles were analyzed, and diagnostic classification was performed blind. Results showed that (1) 85.7% of the profiles indicated abnormally high clinical elevations; and (2) MMPI profile classification revealed four clinical diagnostic groups: somatoform (24.3%), depression (15.7%), anxiety (28.6%), and psychotic (14.3%). These findings indicate significant psychopathology among these women, who formerly had worked in a microelectronics plant. The patterns of impairment present similarities to previous reports of organic solvent toxicity.

Brems, C. and Johnson, ME. Further exploration of the Egocentricity Index in an inpatient psychiatric population. *J Clin Psychol*. 1990 Sep; 46(5): 675-9.

Abstract: Using the Rorschach protocols from 129 adult psychiatric inpatients, the Egocentricity Index as calculated in the Exner Comprehensive System was investigated relative to MMPI standard and special scales, Beck Depression Inventory, and other Rorschach variables. Results indicate that rather than being a measure of self-focus and self-centeredness, the Index might be related to introversion and introspection. Additionally, the Index may have differential implications about mental health for males vs. females.

Brooks, WB; Jordan, JS; Divine, GW; Smith, KS, and Neelon, FA. The impact of psychologic factors on measurement of functional status. Assessment of the sickness impact profile [see comments]. *Med Care*. 1990 Sep; 28(9): 793-804.

Abstract: In this study the relationship between four psychologic health constructs (depression, anxiety, patient response bias, and hostility) and the Sickness Impact Profile (SIP) measurement of functional status was evaluated. The SIP, Carroll Depression Rating Scale (CDRS); and the Minnesota Multiphasic Personality Inventory (MMPI) were administered to 332 patients hospitalized for treatment of combined medical and psychiatric problems. Pearson's product-moment correlation was high between CDRS and SIP Total score ( $r = 0.67$ ) and between CDRS and SIP Psychosocial subscale ( $r = 0.72$ ); correlation was lower between CDRS and SIP Physical subscale ( $r = 0.44$ ). Six MMPI scales (depression, anxiety, psychasthenia, lie, K, hostility) correlated with SIP Total score ( $r = 0.18$  to  $0.50$ ), with SIP Psychosocial score ( $r = 0.28$  to  $0.65$ ) and less well with SIP Physical subscale ( $r = 0.07$  to  $0.25$ ). Factor analysis of the SIP categories showed two factors with eigenvalues greater than 1. Promax factor rotation showed all SIP Psychosocial categories and all measured psychologic variables loaded most heavily on factor 1. SIP Physical categories loaded most heavily on factor 2. Stepwise multiple regression analysis showed that psychologic variables account for 49% of the SIP total variance, 62% of SIP Psychosocial subscale variance, but only 19% of SIP Physical subscale variance. The CDRS accounts for the major portion of the explained variance with only minor additional contributions from the MMPI scales. We conclude that 1) the SIP discriminates psychosocial and physical dysfunction even in medical patients with extensive psychiatric comorbidity; 2) the SIP measures at least two dimensions of health, one of which is strongly related to depression; and 3) constructs measured by MMPI scales do not have substantial independent contribution to SIP variance.

Brophy, CJ; Norvell, NK, and Kiluk, DJ. An examination of the factor structure and convergent and discriminant validity of the SCL 90R in an outpatient clinic population. *J Pers Assess*. 1988 Summer; 52(2): 334-40.

Abstract: This study investigated the factor structure of the SCL-90R using an outpatient psychology clinic population. Six relatively homogeneous and stable factors were identified: Depression, Somatization, Anger-Hostility, Paranoid-Psychoticism, Phobic Anxiety, and Obsessive-Compulsive. However, a principal component analysis revealed that the first factor accounted for a large percentage of the variance, suggesting that this instrument measures a general dimension of psychopathology. In addition, significant correlations between the SCL-90R symptom dimensions and both the BDI and several MMPI scales were found. The results of the study lead to questions regarding the utility of the SCL-90R.

Brown, R.; Munjack, D., and McDowell, D. Agoraphobia with and without current panic attacks. *Psychol Rep*. 1989 Apr; 64(2): 503-6.

Abstract: MMPI and SCL-90-R profiles of agoraphobics with and without current panic attacks are presented. Agoraphobics with current panic attacks were more elevated on Psychopathic Deviate (4), Psychasthenia (7), and Social Introversion (0) scales of the MMPI. On the SCL-90-R agoraphobics with current panic attacks had higher scores on Interpersonal Sensitivity, Anxiety, Phobic Anxiety, and Total/90.

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Bulik, CM; Beidel, DC; Duchmann, E.; Weltzin, TE, and Kaye, WH. Comparative psychopathology of women with

bulimia nervosa and obsessive compulsive disorder. *Compr Psychiatry*. 1992 Jul-Aug; 33(4): 262-8.  
Abstract: Twenty women with bulimia nervosa (BN) and 20 women with obsessive-compulsive disorder (OCD) were compared on responses to the Minnesota Multiphasic Personality Inventory (MMPI), Symptom Checklist-90-Revised (SCL-90-R), and the Beck Depression Inventory (BDI). Multivariate analyses showed no significant differences between bulimic and OCD women on the MMPI, although a greater number of bulimic women showed significant elevations on several of the clinical scales. Analyses of SCL-90-R profiles indicated higher scores on somatization, interpersonal sensitivity, and psychoticism in the BN sample. Bulimic women did not differ significantly from OCD women on either obsessive-compulsive measures or other measures of anxiety. Similarities and differences in symptom profiles between these two groups are discussed, as well as their implications for alternative treatment approaches for BN.

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Cannon, DS; Bell, WE; Andrews, RH, and Finkelstein, AS. Correspondence between MMPI PTSD measures and clinical diagnosis. *J Pers Assess*. 1987 Winter; 51(4): 517-21.

Abstract: Correspondence of the Minnesota Multiphasic Personality Inventory (MMPI) posttraumatic stress disorder (PTSD) subscale and the clinical scale decision rules reported by Keane, Malloy, and Fairbank (1984) with clinical diagnoses of PTSD was measured on a sample of 595 veterans. The measures demonstrated good sensitivity and selectivity, but the false-positive rate was high. It is suggested the MMPI measures be used to rule out, but not to establish, the diagnosis of PTSD. The construct validity of the PTSD subscale was supported by the finding of a higher mean score in combat than noncombat veterans.

Chaleby, KS and Raslan, A. Delineation of social phobia in Saudia Arabians. *Soc Psychiatry Psychiatr Epidemiol*. 1990 Nov; 25(6): 324-7.

Abstract: Eighty Saudi Arabian males with social phobia who met DSMIII-R criteria, were evaluated psychiatrically and socially according to the MMPI social withdrawal scale standardized to the Saudi population. They were empirically grouped as mild, moderate or severe cases. They were also evaluated symptomatically according to the Leeds anxiety-depression scale to give ratings of depression and anxiety, separately and in combination. Thirty-seven and a half percent and 55% of the patients were mild-moderately and severely anxious respectively; 55% and 34% were mild-moderately and significantly depressed respectively. There was, however, no linear correlation between the level of anxiety or depression and the severity of social phobia. Social withdrawal ratings were matched with demographic variables, age of onset, perceived childhood adjustment, perceived parental behaviour, work adjustment, family history of psychiatric disorders, and the presence of other phobia. There was a negative correlation between social withdrawal scale and all of these variables except work adjustment, family history of psychiatric disorder and presence of other phobias. These results are discussed.

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Abstract: Eighty Saudi Arabian males with social phobia who met DSMIII-R criteria, were evaluated psychiatrically and socially according to the MMPI social withdrawal scale standardized to the Saudi population. They were empirically grouped as mild, moderate or severe cases. They were also evaluated symptomatically according to the Leeds anxiety-depression scale to give ratings of depression and anxiety, separately and in combination. Thirty-seven and a half percent and 55% of the patients were mild-moderately and severely anxious respectively; 55% and 34% were mild-moderately and significantly depressed respectively. There was, however, no linear correlation between the level of anxiety or depression and the severity of social phobia. Social withdrawal ratings were matched with demographic variables, age of onset, perceived childhood adjustment, perceived parental behaviour, work adjustment, family history of psychiatric disorders, and the presence of other phobia. There was a negative correlation between social withdrawal scale and all of these variables except work adjustment, family history of

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Ciesielska, Kopacz N. [Evaluation of selected personality factors in patients with bronchial asthma]. *Pol Tyg Lek.* 1992 Aug 18-31; 47(34-35): 745-6.

Abstract: Psychological factors an important role in the development and clinical course of the bronchial asthma. Therefore, an effect of the selected personality features on the course of the bronchial asthma have been studied. The study included 91 asthmatic patients and 30 persons of the control group. Three psychological tests have been used: Wiskad-MMPI. Cattell's Self-Cognition Chart, and Eysenck's Personality Inventory translated by Chojnowski. The study has shown, that asthmatic patients are characterized by the high level of anxiety and marked emotional imbalance, especially female patients. Emotions are suppressed and neglected by the asthmatic patients. These attitude should be considered in psychotherapy of such patients.

Clark, C. and Klonoff, H. Empirically derived MMPI profiles. Coronary bypass surgery. *J Nerv Ment Dis.* 1988 Feb; 176(2): 101-6.

Abstract: A cluster analysis of eight clinical scales of the MMPI-168 was performed on data from 129 subjects awaiting coronary bypass surgery. Four abnormal profiles were derived and these profiles were consistent with clinical expectancy. The five empirically derived profiles were labeled as a) normal--that is, no elevated scales; b) marginal distress--elevated Hs; c) conversion V--elevated Hs and Hy; d) neurotic--elevated Hs, D, Hy, and Pt; and e) generalized distress--elevated D, Hy, Pd, Pa, Pt, and Sc. Subsequent postsurgical follow-ups were done at 3-, 12-, and 24-month intervals. These data suggest that the profiles retained their characteristic shape and were still statistically different from each other, but the overall elevation decreased significantly after successful surgical intervention. To externally validate these profiles, the five derived groups were compared in terms of Beck Depression scores and the State/Trait Anxiety Inventory. These results were consistent with the MMPI. These data are discussed in terms of developing models for assessing the interaction of personality and specific stressors.

Clark, K.; Dinsmore, S.; Grafman, J., and Dalakas, MC. A personality profile of patients diagnosed with post polio syndrome. *Neurology.* 1994 Oct; 44(10): 1809-11.

Abstract: Post-polio syndrome (PPS) refers to the late development of new neuromuscular symptoms in previously stable poliomyelitis patients. Whether psychological disturbance plays a role in the manifestation of symptoms in these patients is unclear. We examined 22 patients fulfilling the clinical criteria for PPS with the Minnesota Multiphasic Personality Inventory-II (MMPI-II), Beck Depression Inventory, Spielberger State-Trait Anxiety Scales,

Chapman and Chapman Psychosis-Proneness Scales, Fatigue Scales, a neurobehavioral rating scale, and Cognitive Symptoms Self-Report Scales. The overwhelming majority of scale scores were within normal limits, and there was no indication that psychopathologic symptoms were associated with the development or severity of new muscle weakness in PPS patients. Women with PPS had significantly more somatic complaints, but were less socially isolated than men with PPS. This study confirms that the development or severity of new muscle weakness in carefully diagnosed PPS patients is not due to, or influenced by, underlying psychopathology.

Clark, SA; Velasquez, RJ, and Callahan, WJ. MMPI ER two point codes of industrially injured Hispanic workers by DSM III R diagnosis. *Psychol Rep.* 1992 Aug; 71(1): 107-12.

Abstract: The purpose of this study was to describe the MMPI-ER two-point codes of 492 Hispanic adults who had sustained work-related injuries and who had applied for workers' compensation benefits. More specifically, the focus was on whether there are unique MMPI two-point codes for Hispanic workers with three specific types of DSM-III-R diagnoses--adjustment disorder, anxiety disorder, and major depression. Analysis suggests that psychiatric condition or diagnosis may act as a moderator variable in Hispanic persons' MMPI performance, including MMPI two-point codes.

Cohen, K.; Auld, F., and Brooker, H. Is alexithymia related to psychosomatic disorder and somatizing? *J Psychosom Res.* 1994 Feb; 38(2): 119-27.

Abstract: The purpose of this study was to examine the relationship among alexithymia (as measured by the Toronto Alexithymia Scale--TAS and the scored version of the Archetypal 9 Test--SAT9), the presence or absence of classical psychosomatic disease, and the experience and expression of physical signs and symptoms. Subjects included thirty-two physical signs and symptoms. Subjects included thirty-two in-patients on a psychosomatic medicine unit (somatizing group), thirty-one out-patients who presented to a psychology clinic (psychiatric group), and thirty-four dental patients (comparison group). All subjects completed the TAS, the SAT9, the Hypochondriasis scale of the Minnesota Multiphasic Personality Inventory (MMPI Hs), the Physical Malfunctioning subscale of the MMPI (MMPI Physm), the Somatic Complaints subscale of the MMPI (MMPI Somc), the Hypochondriasis and Denial scales of the Basic Personality Inventory (BPI Hs and BPI Dn), and a demographic questionnaire. Age was significantly correlated with some of the TAS subscales ( $p < 0.001$ ). There was no significant differences in SAT9 or TAS scores among the three subject groups (SAT9  $F(2, 87) = 1.88, p = 0.16$ ; TAS  $F(2, 92) = 2.91, p = 0.06$ ). MMPI Hs, MMPI Physm, MMPI Somc, BPI Hs could significantly predict TAS ( $R = 0.46, F(4, 89) = 6.06, p = 0.0002$ ) but not SAT9 scores ( $R = 0.26, F(5, 84) = 1.54, p = 0.20$ ). Neither TAS ( $F(2, 92) = 2.13, p = 0.12$ ) or SAT9 ( $F(2, 87) = 0.095, p = 0.91$ ) scores differed significantly between subjects grouped according to whether they had none, one, or two or more classical psychosomatic disorders.(ABSTRACT TRUNCATED AT 250 WORDS)

Colligan, RC and Offord, KP. Changes in MMPI factor scores: norms for the Welsh A and R dimensions from a contemporary normal sample. *J Clin Psychol.* 1988 Mar; 44(2): 142-8.

Abstract: Welsh developed scales A (anxiety/maladjustment) and R (repression/control) as measures of two of the underlying dimensions of the MMPI. They are among the most frequently used of the supplemental scales for the MMPI. However, there have been significant changes in MMPI response patterns when profiles from contemporary normal people are compared with the original Minnesota normal sample from which the original MMPI norms were derived more than 40 years ago. Comparable changes are also apparent on scales A and R. New norms based on a large sample ( $N = 1,408$ ) of contemporary normal people are presented for clinicians and researchers who use scales A and R.

Colligan, RC; Offord, KP; Malinchoc, M.; Schulman, P., and Seligman, ME. CAVEing the MMPI for an Optimism Pessimism Scale: Seligman's attributional model and the assessment of explanatory style. *J Clin Psychol.* 1994 Jan; 50(1): 71-95.

Abstract: Research based on Seligman's model indicates that a pessimistic explanatory style predicts increased frequency of depression, poorer physical health, and lower levels of achievement. The data show that persons who have a pessimistic outlook on life are more frequent users of the medical and mental health care delivery systems. This paper describes the development of a bipolar MMPI Optimism-Pessimism (PSM) scale that is based on the results of a technique--Content Analysis of Verbatim Explanation (CAVE)--applied to the MMPI. Reliability and validity indices show that the PSM scale is highly accurate and consistent with Seligman's theory. Identification of the patient's explanatory style may lead to improved management because intervention measures can be directed more accurately according to the patient's personality style. The new scale also will allow researchers to use existing MMPI data to explore relationships between explanatory style and various outcome variables and behavioral

correlates.

Craig, R.J. Psychological functioning of cocaine free basers derived from objective psychological tests. *J Clin Psychol.* 1988 Jul; 44(4): 599-606.

Abstract: This paper reports on two separate studies that compared cocaine free-basers with opiate addicts on objective personality tests (Adjective Checklist and MMPI). Both groups showed a similar organization of needs. While opiate addicts were characterized by acting-out traits, rebelliousness, depression, anxiety, alienation, and hyperactivity, the cocaine free-basers were characterized by similar traits, but at modulated levels of severity. Implications for treatment programs and for pharmacodynamic theories, with emphasis on the relationship between underlying personality structure and drug of choice, were discussed.

Danjou, P.; Warot, D.; Weiller, E.; Lacomblez, L., and Puech, A.J. [Personality of healthy volunteers. Normality and paradox]. *Therapie.* 1991 Mar-Apr; 46(2): 125-9.

Abstract: The personality characteristics of 62 subjects to be screened for eligibility in psychopharmacology studies have been assessed. The psychological screening comprised the Cattell anxiety scale (CAS), the Eysenck Personality inventory (EPI) and the Minnesota Multiphasic Personality Inventory (MMPI) in its complete version (550 items). The comparison of the results to a population matched for age and status showed that the anxiety level was not different, extraversion factor was higher ( $p$  less than 0.001) and various personality traits were different. The most striking differences were observed on the factors: Psychopathic deviation, Mania, Schizophrenia greater than controls and social introversion lower than controls. These differences may evoke several biases, such as a recruitment bias or a specific personality pattern of young healthy subjects. In order to discuss these hypothesis, further comparisons with other centers are required to conclude.

Davis, B.; Krug, D.; Dean, RS, and Hong, BA. MMPI differences for renal, psychiatric, and general medical patients. *J Clin Psychol.* 1990 Mar; 46(2): 178-84.

Abstract: Renal failure has both medical and psychological implications. Indeed, various psychiatric problems related to end-stage renal disease have been reported in the literature; however, the focus has been on anxiety and depression. While previous research has dealt with the comparisons of patients with renal failure, few studies have investigated the comparison of renal patients with psychiatric and general medical patients. The present study compared renal patients ( $N = 24$ ) with a group of depressed psychiatric patients ( $N = 24$ ) and a group of general medical patients ( $N = 24$ ) on the MMPI. The results suggested that the renal group presented a psychological profile that more closely resembled that of the depressed psychiatric group than that of patients with other chronic medical conditions.

De, Benedittis G. and Lorenzetti, A. Minor stressful life events (daily hassles) in chronic primary headache: relationship with MMPI personality patterns. *Headache.* 1992 Jul; 32(7): 330-4.

Abstract: This study investigated the relationship between minor life events (i.e. daily hassles) and personality patterns from selected scales of MMPI in the persistence of primary headache in 83 patients. Comparisons between headache subgroups indicated that tension-type headache patients are much more likely than those with migraine to have experienced high level of microstress (hassles density), with mixed headache in between. Tension-type headache patients reported higher MMPI scores on scales 1, Hypochondriasis (somatic concern), scale 3, Hysteria (denial) and scale 7, Psychasthenia (anxiety), but not on scale 2 (Depression), than migrainous patients. In addition, individuals with high level of microstress appeared to be more depressed and anxious than low-stress headache patients, scoring significantly higher on MMPI scales 2 (Depression) and 7 (Psychasthenia). As no significant differences due to sex, age, headache history and status, except for the headache density (i.e. severity x frequency) appeared, it is likely that high-stress levels are due, at least in part, to greater density of pain, rather than to discrete headache syndromes. Our findings support the notion that depressed mood and anxiety may account for a third intervening variable in the relationship between chronic headache and life stress.

Denier, CA; Thevos, AK; Latham, PK, and Randall, CL. Psychosocial and psychopathology differences in hospitalized male and female cocaine abusers: a retrospective chart review. *Addict Behav.* 1991; 16(6): 489-96.

Abstract: While considerable amounts of psychological and pharmacological data have been collected on male substance abusers in public treatment facilities, relatively little information is available about the psychosocial characteristics of men in private treatment settings and of women presenting for substance abuse treatment. The present study reviewed the records of 100 male and female cocaine abusers admitted to a private substance abuse treatment program between 1987 and 1989. Patterns of cocaine use and levels of impairment were found to be similar for men and women, with male cocaine abusers more likely to abuse additional substances. Male cocaine

abusers were employed more frequently than women and held higher status jobs despite equivalent levels of education. Female cocaine abusers were more likely to be diagnosed with concurrent psychiatric disorders and were more likely to report family histories of substance abuse. Both groups produced elevations on MMPI scales indicating depression, anxiety, paranoid features, and acting-out tendencies. These data suggest that while male and female cocaine abusers show similarities on some measures, there are significant gender differences that may have implications for both research and treatment.

Der, DF and Lewington, P. Rational self directed hypnotherapy: a treatment for panic attacks. *Am J Clin Hypn.* 1990 Jan; 32(3): 160-7.

Abstract: A single-subject research design was employed to assess the efficacy of rational self-directed hypnotherapy in the treatment of panic attacks. Presenting symptoms were acute fear, dizziness, constricted throat, upset stomach, loss of appetite, loss of weight, insomnia, fear of doctors, and fear of returning to work. Treatment lasted 13 weeks plus a 2-week baseline and posttherapy period and a 6-month follow-up. Objective measurements (MMPI, TSCS, POMS) and self-report assessments (physiological symptoms and a subjective stress inventory) were implemented. Using hypnosis and guided imagery, the subject reviewed critical incidents identifying self-defeating components within a cognitive paradigm, revising and rehearsing these incidents. Results showed an increased sense of control, improved self-concept, elimination of pathological symptoms, and cessation of panic attacks.

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Devroede, G.; Girard, G.; Bouchoucha, M.; Roy, T.; Black, R.; Camerlain, M.; Pinard, G.; Schang, JC, and Arhan, P. Idiopathic constipation by colonic dysfunction. Relationship with personality and anxiety. *Dig Dis Sci.* 1989 Sep; 34(9): 1428-33.

Abstract: The personality of two groups of constipated women (by delayed colonic transit or by colonic inertia) was compared to that of two control groups of arthritic patients (rheumatoid or degenerative disease) with the Minnesota Multiphasic Personality Inventory (MMPI). All subjects suffered from chronic pain. Constipated women were found to have significantly higher scores on the hypochondria, hysteria, control, and low back pain scales and a lower score on the masculinity-femininity scale. Discriminant analysis permitted us to sort out constipated from arthritic patients in 83% of the cases, on the basis of only the personality data. In women with constipation by delayed colonic transit, multiple regression analysis demonstrated a close link ( $r = 0.90$ ;  $P$  less than 0.001) between transit time in the ascending colon and levels of anxiety. It is concluded that women with constipation of colonic origin have a different pattern of personality than arthritic women and that severe constipation may play the role of a defense mechanism, where psychophysiological responses to life stresses replace normal emotional reactions.

Di, Prima TM; De, Pasquale R.; Gilotta, SM, and Cravotta, A. [Preliminary approach to the mental component in dermatologic patients]. *G Ital Dermatol Venereol.* 1989 Apr; 124(4): 147-50.

Abstract: The aim of this study was to approach on a psychical point of view 27 patients suffering from chronic idiopathic urticaria (14), pruritus sine materia (6), alopecia areata (3), pathomimia (4), in order to examine the possibility that psychic disorders could act as triggering or aggravating the dermatological affection. Psychical assessment was evaluated by colloquy and by the administration of some psychodiagnostic tests: EPI, MMPI, Zung. The role of psychogenic factors in skin diseases is emphasized and the results obtained from the use of antidepressant and minor tranquilizer drugs are discussed.

Dunn, GE; Paolo, AM; Ryan, JJ, and Van, Fleet J. Dissociative symptoms in a substance abuse population. *Am J Psychiatry.* 1993 Jul; 150(7): 1043-7.

Abstract: OBJECTIVE: This study was intended to examine the extent of dissociative experiences that exist within a substance abuse population and to determine how demographic and clinical variables affect these experiences. METHOD: A total of 265 male veterans being treated on an inpatient substance abuse unit completed a standard test battery that included the MMPI-2, the Shipley-Hartford Institute of Living Scale, and the Dissociative Experiences

Scale. Additional demographic and clinical information was obtained from the patients' medical records. RESULTS: Over 41% of the cohort had scores on the Dissociative Experiences Scale that suggested the need for further evaluation of a dissociative disorder. A stepwise multiple regression analysis revealed that level of psychological discomfort, IQ, and race accounted for more than 24% of the variance in Dissociative Experiences Scale scores. CONCLUSIONS: Substance abuse populations may need to be routinely screened for dissociative symptoms just as they are for depression and anxiety.

Duran, V.; Jovanovic, M.; Mistic, Pavkov G.; Poljacki, M.; Novovic, Z.; Miloscin, S., and Golub, R. [The effect of stress and personality structure on the onset and severity of the clinical picture of psoriasis]. *Med Pregl.* 1993; 46(3-4): 120-3.

Abstract: On a sample of 38 psoriatic patients we tried to determine the relationship between neurotic disorders (operationalized MMPI) and the number and hazardous effects of stressful events on the one hand and the severity of the clinical picture and the time of the onset of psoriasis on the other. In our sample neurotic disorders are much commoner than in the general population indicating that they might represent one of the most significant factor of etiology, complications and prevention. The last hypothesis is based on the results showing that neurotic psoriatics develop psoriasis significantly later than non-neurotics. We haven't attained a profile of a typical neurotic person because neurotic disorders are manifested through different symptoms. The average number of stressful events was found significantly higher in more severe forms of psoriasis compared to the milder forms. Finally, a remark has been made about benefits of a multidisciplinary approach to the study of psoriasis and the inclusion of psychotherapy in the treatment of psoriatic patients.

Dutton, MA; Burghardt, KJ; Perrin, SG; Chrestman, KR, and Halle, PM. Battered women's cognitive schemata [published erratum appears in *J Trauma Stress* 1994 Jul;7(3):503]. *J Trauma Stress.* 1994 Apr; 7(2): 237-55.  
Abstract: This study examined battered women's cognitive schema in relation to their cognitions about violence (i.e., the "meaning" attached to the violence), post-traumatic reactions to violence, and sexual victimization histories. Seventy-two battered women seeking help from an outpatient family violence clinic were subjects. The meaning of the violence (e.g., expectations of recurrent violence and of severe/lethal violence, causal attribution) was found to explain variance in cognitive schemata about SAFETY, SELF, AND OTHER (McCann and Pearlman, 1990a). All measures of cognitive schemata were significantly related to various global and specific measures of posttraumatic stress (GSI, MMPI-PTSD, IES). No differences were found for cognitive schemata based on histories of sexual victimization. Results point to the importance of assessing the impact of traumatic experiences on core cognitive beliefs as a component in the constellation of post-traumatic sequelae.

Dutton, MA; Hohnacker, LC; Halle, PM, and Burghardt, KJ. Traumatic responses among battered women who kill. *J Trauma Stress.* 1994 Oct; 7(4): 549-64.

Abstract: This study compared levels of violence, social support, and post-traumatic stress between battered women charged with a violent crime against an abusive partner and those seeking help from a mental health clinic. Results indicated that forensic battered women were more likely than clinical battered women to report experiencing severe violence, including sexual abuse, in their relationships. Women in the forensic sample also reported less social support and greater post-traumatic stress than women in the clinical sample. However, when social support and level of violence were accounted for, levels of general post-traumatic stress indicators (MMPI-PTSD, CR-PTSD, GSI) were no longer different between groups, although levels of specific post-traumatic stress indicators (intrusion, avoidance) remained higher for battered women in the forensic sample. Implications for understanding battered women's response to violence and their post-traumatic reactions to it are discussed.

Fals, Stewart W. and Schafer, J. MMPI correlates of psychotherapy compliance among obsessive compulsives. *Psychopathology.* 1993; 26(1): 1-5.

Abstract: The purpose of this investigation was to examine the relationship between compliance with a behavior therapy program and personality characteristics of obsessive-compulsive disorder (OCD) outpatients (n = 169), as measured by the Minnesota Multiphasic Personality Inventory (MMPI). Compliance was defined as the number of scheduled behavior therapy sessions canceled or missed by patients. Standard multiple regression analysis revealed that higher scores on scales 8 (Schizophrenia), 2 (Depression), and 0 (Social Introversion) contributed significantly to the prediction of compliance among OCD patients engaged in behavior therapy.

Ferreira, MF; Sobrinho, LG; Pires, JS; Silva, ME; Santos, MA, and Sousa, MF. Endocrine and psychological evaluation of women with recent weight gain. *Psychoneuroendocrinology.* 1995; 20(1): 53-63.

Abstract: A group of 13 consecutive regularly menstruating women who gained at least 5 kg the previous year

(Group I) was compared to a control group of similar age, parity, and social class (Group II). The two groups were similar in estimated and observed food intakes; pre- and postprandial gastrin levels; hourly 24-h profiles of cortisol and insulin; urinary cortisol and 17-hydroxycorticosteroids. Group I had higher serum prolactin concentrations at all times than Group II (mean values 14.60 micrograms/l vs. 8.84 micrograms/l;  $p = .0121$ ). Galactorrhea was observed in 5 women from Group I and in none of the women from Group II ( $p < .05$ ). Group I also differed from Group II in a higher incidence of meaningful life-events the year preceding the study, higher prevalence of sexual dysfunction (9/13 vs. 4/13;  $p < .01$ ) and higher indexes ( $p < .05$ ) of several parameters in the MMPI and SCL 90. Median serum cortisol and prolactin concentrations were negatively correlated, both in Group I ( $R = -.669$ ;  $p = .012$ ) and in the whole sample ( $R = -.453$ ;  $p = .0298$ ). It is suggested that the rapid weight gain is part of a neuroendocrine response to environmental stimuli also characterized by hyperprolactinemia. The significant negative correlation between serum prolactin and cortisol indicates that this response differs from, and is possibly an alternative to, the sympathoadrenal "stress" response.

Fiedler, N.; Kipen, H.; Deluca, J.; Kelly, McNeil K., and Natelson, B. Neuropsychology and psychology of MCS. *Toxicol Ind Health*. 1994 Jul-Oct; 10(4-5): 545-54.

Abstract: Neurological symptoms are frequently reported by patients with multiple chemical sensitivities (MCS). Methods to compare the psychiatric, personality, and neuropsychological function of patients with MCS, chronic fatigue syndrome (CFS), and normal controls are described. Increased rates of Axis I psychiatric diagnoses are observed in the literature for MCS and CFS subjects relative to controls. Findings on the MMPI-2 and the Toronto Alexithymia Scale reveal profiles consistent with the tendency to report somatic rather than emotional symptoms in response to stress. However, many of the reported somatic symptoms also coincide with those found in neurologic disorders. The overall neuropsychological profile for MCS subjects does not reflect cognitive impairment. Relative to normal controls, the only difference in neuropsychological performance observed is reduced recognition of nontarget designs on a visual memory task. More fruitful areas for future psychological research will include measurement of the interaction between behavioral response styles and attentional processes in cognition, as well as observations under controlled challenge conditions.

Fife, B.; Norton, J., and Groom, G. The family's adaptation to childhood leukemia. *Soc Sci Med*. 1987; 24(2): 159-68.

Abstract: This baseline study obtained data measuring the specific effects of the stress of childhood leukemia on family life and on the lives of individual family members. Mothers, fathers, siblings, and patients were included in the data collection. Specific variables measured were marital adjustment, anxiety level, dynamics of family interaction, and the school behavior of patients and siblings. The data were collected at designated intervals over a one year period beginning at the time of diagnosis. In addition, the data were utilized to speculate on those families that appeared to be at risk for the development of long-term psychosocial problems secondary to, or aggravated by the illness. Results indicated that patterns of coping for families, as well as for individual family members, were relatively constant over time. Families with predominantly stable relationships and adequate support within the family unit were able to maintain their usual quality of life over an extended period of time despite the onset of acute stress. However, families with pre-existing problems prior to diagnosis for the most part experienced increased deterioration in family life and had difficulty coping. Results of the Spielberger State-Trait Anxiety Scale, the Locke-Wallace Marital Adjustment Test, the Moos Family Environment Scale, the MMPI, and school data supporting these conclusions are given.

Flanagan, DA and Wagner, HL. Expressed emotion and panic fear in the prediction of diet treatment compliance. *Br J Clin Psychol*. 1991 Sep; 30 ( Pt 3): 231-40.

Abstract: The 'expressed emotion' (EE) of the key relatives of 30 severely obese patients was assessed on intake to a calorie-restricted diet programme. At the same time the patients and 30 matched controls were administered the MMPI 'panic-fear' scale. After five months on the diet the weight of the patients was measured, and weight loss or gain in the five-month period was used as an indicator of compliance or non-compliance with the treatment. The results indicated that the obese patients showed more anxiety (measured by the panic-fear scale) than did the control subjects. Compliant patients had lower panic-fear scores than did non-compliant patients, and patients living with a high EE relative were much less likely to comply with treatment than were those living with a low EE relative. Patients with a high EE relative were more likely to have a high panic-fear score. The results suggest that dietary treatments for obesity need to be accompanied by both individual and family behavioural interventions.

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Fordyce, WE; Bigos, SJ; Batti'E, MC, and Fisher, LD. MMPI scale 3 as a predictor of back injury report: what does it tell us? *Clin J Pain*. 1992 Sep; 8(3): 222-6.

Abstract: Items and selected subscales of Scale 3 (Hysteria) of the MMPI were examined to pinpoint personality or emotional factors predictive of back injury reports in an industrial setting. Data were derived from a previous prospective-design study of back pain in volunteer hourly wage employees of an aircraft manufacturing company. After physical examination and completion of questionnaires pertaining to demographic, psychosocial (including the MMPI), and workplace factors, workers were followed for an average of 3 years. Those who subsequently reported back injury were compared with those who did not. In that study three variables predicted report of back injury, one of which was Scale 3 of the MMPI. Individual items, Ornduff et al. subscales of Psychological Denial and Body Concern, and the five Harris-Lingoes (1955) subscales of Scale 3 were analyzed. Three Harris-Lingoes subscales showed significant relationships to the criterion. Hy-3: Lassitude/Malaise; Hy-1: Denial of Social Anxiety; and, marginally, Hy-2: Need for Affection, significantly contributed to prediction effectiveness. Results and implications for the understanding of factors predicting back injury reports and for the medical evaluation of pain and the concept of pain are discussed.

Frueh, BC and Kinder, BN. The susceptibility of the Rorschach Inkblot Test to malingering of combat related PTSD. *J Pers Assess*. 1994 Apr; 62(2): 280-98.

Abstract: The ability of subjects to alter their responses on the Rorschach and self-report measures to fake the symptoms of combat-related Posttraumatic Stress Disorder (PTSD) was investigated. Subjects were 40 White male undergraduates, randomly assigned to either a control or role-informed malingerer group, and 20 White Vietnam veterans with PTSD. Subjects were administered the Rorschach, MMPI-2 validity scales, and Mississippi Scale for Combat-Related PTSD. Results indicated that malingerers were able to achieve scores similar to the PTSD patients on the Mississippi Scale and some Rorschach variables. However, they evidenced significant differences on the MMPI-2 validity scales and several important Rorschach variables. Malingerers typically gave responses that were overly dramatic and less complicated, less emotionally restrained, and indicated an exaggerated sense of impaired reality testing as compared to PTSD patients. Behavioral differences were also noted between the groups. Findings are discussed in the context of the study's limitations and the practical detection of malingered PTSD in clinical settings.

Frueh, BC; Leverett, JP, and Kinder, BN. Interrelationship between MMPI 2 and Rorschach variables in a sample of Vietnam veterans with PTSD. *J Pers Assess*. 1995 Apr; 64(2): 312-8.

Abstract: We examined interrelationships between theoretically related MMPI-2 and Rorschach variables in a sample of Veterans Affairs outpatients with Posttraumatic Stress Disorder (PTSD). Subjects were 20 White Vietnam combat veterans diagnosed with PTSD who completed the Rorschach and MMPI-2 as part of a comprehensive evaluation. Correlations were calculated for variables in three groups: validity, depression and anxiety, and thought disturbance. Results showed strong relationships between m, MOR, and the Dramatic special score of the Rorschach and MMPI-2 indices of distress. Positive relationships were also found for some indicators of thought disturbance, whereas correlations for other depressive indicators were not significant. Findings are discussed with regard to implications for the clinical assessment of combat-related PTSD and future directions for assessment research.

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Frueh, BC; Smith, DW, and Libet, JM. Racial differences on psychological measures in combat veterans seeking treatment for PTSD. *J Pers Assess.* 1996 Feb; 66(1): 41-53.

Abstract: In this article, we examined racial differences in psychometric data on 4 commonly used self-report inventories administered to a group of 206 combat veterans evaluated at a Veterans Affairs Medical Center outpatient posttraumatic stress disorder (PTSD) treatment program. Patients completed the Beck Depression Inventory, Mississippi Scale for Combat-Related PTSD, Dissociative Experiences Scale (DES), and Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Black veterans showed greater elevations than White veterans on the DES, and the F-K index and Scales 6 and 8 of the MMPI-2. In addition, normative data are presented for the entire sample on each measure. Results suggest that, consistent with studies using the original MMPI, these patients endorse severe levels of psychopathology across a broad range of symptoms, including depression and disturbed thinking. Implications for clinical practice and future research are addressed.

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Gass, CS; Ansley, J., and Boyette, S. Emotional correlates of fluency test and maze performance. *J Clin Psychol.* 1994 Jul; 50(4): 586-90.

Abstract: This study tested the hypothesis that depression, anxiety, and bizarre thought content, as measured by MMPI-2 scales, would show a negative relationship with performance on widely used measures of executive functioning. Subjects were 70 male psychiatric patients who were ostensibly free of any neurologic disease or history of substance abuse. Correlational analyses were performed between age and education-corrected scores on the Controlled Oral Word Association Test (FAS), Design Fluency, and WISC-R Mazes, and scores on MMPI-2 scales D, PT, Anxiety, Fears, Obsessional Thinking, Depression, and Bizarre Mentation. The findings suggest that fluency and maze performance is (1) largely independent of measures of depression (D, DEP) and bizarre mentation (BIZ); (2) mildly associated with a measure of generalized anxiety (ANX); and (3) strongly related to an MMPI-2 measure of fearfulness (FRS).

Gass, CS and Daniel, SK. Emotional impact on trail making test performance. *Psychol Rep.* 1990 Oct; 67(2): 435-8.

Abstract: This study assessed the effect of emotional factors on Trail Making Test Part B performance for a sample of 105 neuropsychological referrals for whom there was no neurodiagnostic evidence of brain damage. Trails B scores declined in relation to elevated MMPI scores on Scales 6, 7, and 8, though only nine patients performed within the impaired range. The results suggest that (a) Trails B performance is resilient to a variety of emotional influences, (b) psychotic symptoms and severe anxiety impede Trails B performance, though rarely to the extent

caused by brain damage, and (c) the MMPI provides objective criteria that help rule out emotional effects on Trails B performance.

Gass, CS and Russell, EW. MMPI correlates of performance intellectual deficits in patients with right hemisphere lesions. *J Clin Psychol.* 1987 Sep; 43(5): 484-9.

Abstract: This study investigated the emotional adjustment of 50 patients with focal brain damage in the right hemisphere (RHD). The impact of functional loss (as assessed by the WAIS Performance IQ) was assessed by a multivariate comparison of the composite MMPI profiles of these patients as classified into three groups: Below Average, Average, and Above Average Performance IQ. Regardless of the extent of decline in Performance-related abilities, right hemisphere impairment was associated with symptoms of mild depression, loss of initiative, anxiety, denial, and somatic preoccupations. MMPI scores were not correlated significantly with their WAIS Performance IQs. Implications for neuropsychological assessment are discussed.

Gauci, M.; King, MG; Saxarra, H.; Tulloch, BJ, and Husband, AJ. A Minnesota Multiphasic Personality Inventory profile of women with allergic rhinitis. *Psychosom Med.* 1993 Nov-Dec; 55(6): 533-40.

Abstract: The aim of this study was to explore relationships among perennial allergic rhinitis and personality traits in a nonpsychiatric female population of proven allergic status. Female subjects were assigned to the allergic (N = 22) or nonallergic group (N = 18) on the basis of skin prick test and self-reported allergic status. Analysis of MMPI profiles showed that allergic subjects scored significantly higher on the Hypochondriasis (Hs) and Social Introversion (Si) scales and significantly lower on the Correction (K) and Ego Strength (Es) scales. The results suggested that women with perennial allergic rhinitis show poorer psychological functioning than nonallergic women. In addition, the number of allergies was positively correlated with T scores on the Hs, Depression (D), Hysteria (Hy), Psychasthenia (Pt), Schizophrenia (Sc), Si, and Conscious Anxiety (A) scales, and negatively correlated with T scores on the K and Es scales. Skin reactivity to house dust mite and grass pollen allergens were positively correlated with scores on Si, whereas skin reactivity to grass pollen and mold allergens was positively correlated with D and Pt (grass) and Pd and Sc (grass and mold). Two possible mechanisms explaining the link between psychological factors and allergic rhinitis include (1) the effect of cortisol on IgE production or (2) the production of mediators during an allergic reaction which travel from the nose to the brain.

Germano, G.; Ferrucci, A.; Strano, S.; Molle, G.; Napoleoni, MG; Pecchioli, V.; Germano U., and Pistone, A. Pressor effects from daily events and laboratory complex stimuli relating personality factors. *Clin Cardiol.* 1987 Nov; 10(11): 659-64.

Abstract: Our preliminary research has attempted to establish a series of methods to study the complex interactions occurring between pressor reactivity and personality profile. Ten untreated mild hypertensives (age 42.9 +/- 8) without damaged target organs were recruited from an outpatient hypertension center along with an equal number of normotensive volunteers (age 38.2 +/- 8.1). We performed a sequence of stressor types under laboratory conditions (sensory perceptual activities, psychomotor responses, and cognitive behavior) following an order ranging from inferior levels to superior levels of systemic integration. The subjects also underwent a 24-h automatic noninvasive blood pressure recording which took into account the situational reactivity. They filled in MMPI and STAI questionnaires before and after the stressor batteries. Only the sensory-perceptual test (Stroop color test modified), the arithmetic test, and the psychomotor test provoked a significant increase in blood pressure and, in the latter test, also a significant increase of the heart rate. The test batteries' mean differences were not significant between the two groups. Similarly, the answers to the trait-anxiety questionnaires did not allow us to make a substantial division between normotensive and hypertensive subjects. On the contrary, the situational anxiety questionnaires showed a significant difference in the score reading preceding and following a task performed by the hypertensive subjects. We observed significant differences for both systolic and diastolic 24-h blood pressure data in transition from a working situation to the sleeping period. However, there was not a significant difference in hypertensive blood pressure readings recorded during work and at home. (ABSTRACT TRUNCATED AT 250 WORDS)

Glover, H.; Ohlde, C.; Silver, S.; Packard, P.; Goodnick, P., and Hamlin, CL. Vulnerability Scale: a preliminary report of psychometric properties. *Psychol Rep.* 1994 Dec; 75(3 Pt 2): 1651-68.

Abstract: This work describes assessment of the psychometric properties of a self-report instrument, the Glover Vulnerability Scale. This scale was administered to a total of 11 groups (N = 695). Six of the groups were Vietnam combat veterans diagnosed as having Posttraumatic Stress Disorder (n = 531). The estimate of internal consistency was .88; the test-retest correlation over 4 wk. was .81. Convergent and discriminant validations were satisfactory based on the pattern of the scale's correlations with relevant MMPI subscales and demographic data. Scale scores also discriminated levels of functioning within the population diagnosed with Posttraumatic Stress Disorder and

discriminated veterans diagnosed with Posttraumatic Stress Disorder from patients with major depressive disorder and anxiety disorder. Principal component factor analysis gave a 4-factor solution: social comfort, vulnerability, paranoia, and family trust. Over-all, the findings strongly support the clinical application of the Vulnerability Scale.

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Goldstein, G.; Van, Kammen W.; Shelly, C.; Miller, DJ, and Van, Kammen DP. Survivors of imprisonment in the Pacific theater during World War II. *Am J Psychiatry.* 1987 Sep; 144(9): 1210-3.

Abstract: Data were obtained from 41 survivors of imprisonment by the Japanese during World War II. Interview data suggested that these individuals, despite the 40 years that had passed since their prisoner of war experiences, showed manifestations of posttraumatic stress disorder, notably a sleep disturbance marked by recurrent nightmares. MMPI data suggested significant pathology, characterized as an anxiety state, in this group. Half of the subjects met the full set of DSM-III criteria for posttraumatic stress disorder.

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Grafman, J.; Cohen, LG, and Hallett, M. Is focal hand dystonia associated with psychopathology? *Mov Disord.* 1991; 6(1): 29-35.

Abstract: The purpose of this study was to determine if patients with focal hand dystonia have any significant psychopathology. We studied 20 patients with hand cramps who were participating in a therapeutic trial of botulinum toxin injections. Patients were interviewed and administered the Minnesota Multiphasic Personality Inventory (MMPI), Beck Depression Inventory, Spielberger State-Trait Anxiety Scale, a finger tapping test, and a choice serial reaction time test. Behavioral ratings were also obtained. Group statistics indicated that all personality scale scores and performances on motor tasks were within normal limits. Four out of 20 patients demonstrated mild depression. Trait anxiety scores were higher than state anxiety scores, suggesting that receiving medical treatment had a beneficial effect on mood. The number of depressive symptoms endorsed on the MMPI was correlated with reaction time speed but not finger dexterity. None of the 20 patients reported a remarkable psychiatric history. These results indicate that hand cramps are not associated with serious psychopathology.

Greenwald, DF. The Last and Weiss Rorschach Sum E in a normal sample. *Percept Mot Skills*. 1990 Jun; 70(3 Pt 1): 889-90.

Abstract: For 62 undergraduate women correlations of Rorschach Sum E with scores on 16 PF, Barron's MMPI Ego Strength Scale, the Ego Self-esteem Scale, Kaplan's Self-derogation Scale, and MAACL. Anxiety, depression, and hostility showed FC+ was the only Sum E component associated with adaptive functioning and so Sum E is of limited usefulness.

Greenwald, DF and Harder, DW. Sustaining fantasies and psychopathology in a normal sample. *J Clin Psychol*. 1994 Sep; 50(5): 707-10.

Abstract: This study tested the hypothesis that the types of sustaining fantasy (fantasy used as a source of comfort at times of high stress) previously found to be associated with inpatient status also would be related to indications of psychopathology in a college sample (N = 124). The Sustaining Fantasy Questionnaire (SFQ; Zelin et al., 1983) provided a measure of fantasies of power/vengeance, death/illness, withdrawal/protection, suffering, love/closeness, and restitution. The F scale of the MMPI and the number of MMPI clinical scales at or above 70 were used as the measures of general pathology. Results indicated that four of the hypothesized six types of fantasy—power/vengeance, death/illness, withdrawal/protection, and suffering—were related to psychopathology. No specific configuration of scores on the MMPI clinical scales was noted for any of these four types of fantasy.

Gregg, N.; Hoy, C.; King, M.; Moreland, C., and Jagota, M. The MMPI 2 profile of adults with learning disabilities in university and rehabilitation settings. *J Learn Disabil*. 1992 Jun-Jul; 25(6): 386-95.

Abstract: The primary purpose of this study was to compare the personality profiles of adults with learning disabilities attending a large state university (8 females, 8 males) to those participating in training programs in a rehabilitation setting (8 females, 18 males), in an attempt to identify affective variables that should be considered in transitional and postsecondary program planning. A secondary purpose of the study was to compare the performance of two groups of adults with learning disabilities (i.e., university and rehabilitation) to a normative group of college students. The mean age for all subjects was between 20 and 23 years. Findings from the study indicated that the personality profiles of individuals with learning disabilities in either a rehabilitation setting or seeking a university degree are significantly different from those of the normative population of normally achieving college students. The rehabilitation group in this study demonstrated feelings of social isolation, poor self-concept, self-doubt, and extreme restlessness. Somewhat different profiles were seen with the university group as they indicated feelings of fear, obsessive thoughts, lack of self-confidence, self-doubt, and extreme self-criticism. Both groups demonstrated profiles of individuals under extreme short- and long-term stress leading to anxiety. The study also reviewed the relevance and appropriateness of using the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) that will have direct application for the assessment and intervention of adults with learning disabilities either in a rehabilitation setting or seeking a university degree.

Gritsiuk, AI; Amosova, EN, and Morozov, SM. [Psychological characteristics of the personality in patients with dilated cardiomyopathy]. *Ter Arkh*. 1987; 59(9): 67-70.

Abstract: A total of 39 patients with dilated cardiomyopathy (DCMP) were examined using the MMPI method combined with methods of memory and attention investigation in order to study personality psychological features. Deviations in the psychic status were found in 82.1%. The most common were asthenic, anxiety, depressive, hypochondriac disorders, a decrease in mental efficiency. These deviations were enhanced in the course of disease. Peculiarities revealed in the status of the emotional and intellectual-mnemonic sphere required the incorporation of methods of psychological prevention and correction in therapy of DCMP patients.

Guidetti, V.; Fornara, R.; Ottaviano, S.; Petrilli, A.; Seri, S., and Cortesi, F. Personality inventory for children and childhood migraine. A case controlled study. *Cephalalgia*. 1987 Dec; 7(4): 225-30.

Abstract: The personality inventory for children (PIC), which is similar in structure to the MMPI and hence free from subjective interpretation, is applicable to children from 6 to 16 years of age. We used it in 40 children with common migraine aged 8 to 14 years and in 40 controls comparable in age, sex, and socioeconomic status. Although the migraine subjects did not emerge as globally different from the controls, they presented significantly higher scores on the Somatic concern, Depression, and Anxiety scales, irrespective of sex. These results underline the value of PIC in the diagnostic assessment of childhood migraine.

Gwyther, RE; Bentz, EJ; Drossman, DA, and Berolzheimer, N. Validity of the Family APGAR in patients with irritable bowel syndrome [see comments]. *Fam Med*. 1993 Jan; 25(1): 21-5.

Abstract: BACKGROUND: This study explores the validity of the Family APGAR (adaptability, partnership,

growth, affection, and resolve), a test of family function, in persons with irritable bowel syndrome (IBS). Previous studies have reported increased stress in persons with IBS in the form of marital and interpersonal relationships. METHODS: The Family APGAR and the MMPI were completed by 198 persons, including 58 who sought care for IBS, 67 with IBS who did not seek care, and 73 who did not have the disorder. Family APGAR scores were compared for the three groups using analysis of variance. Multiple regression analysis was used to compare Family APGAR scores with both IBS group status and MMPI K and L scales. An odds ratio was calculated for the two groups with IBS. RESULTS: Mean Family APGAR scores were in the normal range for all three groups and differed by less than 1 point among the groups. The Family APGAR score did not differentiate among persons with IBS but was strongly related to the MMPI K score, a measure of defensiveness in test taking. CONCLUSIONS: The failure of the Family APGAR to detect the family dysfunction found by psychological interviewing and the strong relationship with the MMPI K scale lead us to question the construct validity of the APGAR. More sophisticated test construction is necessary to measure family dysfunction in patients who may tend to respond defensively.

Hama, H.; Mine, H.; Mine, H., and Matsuyama, Y. [The sibling status effects and the personality scales of the MMPI]. *Shinrigaku Kenkyu*. 1987 Jun; 58(2): 105-8.

Abstract: The purpose of this study is to find out if the personalities of siblings are similar or different. Subjects used were Doshisha University students and members of their families, provided those families had only two children. Altogether 29 pairs of boys and their younger brothers, 47 pairs of boys and their younger sisters, 44 pairs of girls and their younger brothers, and 51 pairs of girls and their younger sisters were given the MMPI individually. Sibling status effects were found in many of the MMPI scores according to the type of sibling dyads and birth order, especially for the sibling dyad of elder brother and younger sister. Personality relationships between the first and second child showed that there were significant correlations in many MMPI scales: L, K, Pd, Pa, Pt, Sc, Si, Conflict resolution, Manifest anxiety, Repression-Sensitization, and Hostility. Among the four types of sibling dyad, the pairs of girls and their younger brothers showed the highest correlation in their personality.

Henrichs, TF and Beitman, BD. Further evaluation of the MMPI Pan scale in psychiatric and medical patients. *J Clin Psychol*. 1992 Mar; 48(2): 211-5.

Abstract: The efficiency of a recently developed MMPI scale (Pan) to identify panic disorder was assessed in samples of both psychiatric and medical patients. Particular attention was paid to base rates and cutting scores. The Pan scale was found to have utility in rule-out clinical decision making. Suggestions for further validation studies are discussed.

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Hillary, BE and Schare, ML. Sexually and physically abused adolescents: an empirical search for PTSD. *J Clin Psychol*. 1993 Mar; 49(2): 161-5.

Abstract: Recently, clinical manifestations of post-traumatic stress disorder (PTSD) in children and adolescents have been investigated, yet little is known about its assessment or diagnosis. Few empirically based studies appear in the PTSD literature on non-adult populations. Data were collected from 19 physically and sexually abused adolescents (aged 13-18 years) who were living in a group home setting. Subjects were administered the MMPI, Beck Depression Inventory (BDI), and Spielberger State Trait Anxiety Inventory (STAI). Results suggest that the subjects were moderately depressed and anxious, but that these adolescents did not manifest significant symptomatology of PTSD similar to that seen in adult, civilian PTSD populations using comparable MMPI measures. Implications of these findings for assessment purposes are discussed.

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were moderately depressed and anxious, but that these adolescents did not manifest significant symptomatology of PTSD similar to that seen in adult, civilian PTSD populations using comparable MMPI measures. Implications of these findings for assessment purposes are discussed.

Hovens, JE; Van, Der Ploeg HM; Bramsen, I.; Klaarenbeek, MT; Schreuder, JN, and Rivero VV. The development of the Self Rating Inventory for Posttraumatic Stress Disorder. *Acta Psychiatr Scand.* 1994 Sep; 90(3): 172-83.  
Abstract: In this study a newly developed Self-rating Inventory for Posttraumatic Stress Disorder (PTSD) is presented. The instrument consists of 47 items, reflecting DSM-III-R criteria, associated features and items corresponding to the disorder of extreme stress not otherwise specified. All items are phrased in a trauma-independent way and are measured on an intensity scale. The instrument was validated on 76 subjects with war-related trauma and 59 psychiatric outpatients, one third of whom were traumatized. Test-retest for the scale was 0.90. The coefficient alpha appeared to be 0.96 for the 47-items scale and 0.92 for the 22 DSM-III-R subscale. The scale correlated significantly with the Clinician Administered PTSD Scale, the Mississippi Scale for Combat-related PTSD, the MMPI PTSD subscale and the Impact of Event Scale. The overall efficiency of the Self-rating Inventory for PTSD was comparable to the overall efficiency of the Mississippi Scale and superior to the MMPI PTSD subscale. Factor analysis on the 22 DSM-III-R items showed 4 factors, representing numbing, intrusion, avoidance and sleeping problems. It is concluded that the Self-rating Inventory for PTSD is a powerful instrument for diagnosing PTSD in survey research. The instrument appears to be capable of differentiating not only between PTSD and non-PTSD subjects but also between traumatized non-PTSD subjects and non-traumatized psychiatric patients.

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Hovens, JE; Van, Der Ploeg HM; Klaarenbeek, MT; Bramsen, I.; Schreuder, JN, and Rivero VV. The assessment of posttraumatic stress disorder: with the Clinician Administered PTSD Scale: Dutch results. *J Clin Psychol.* 1994 May; 50(3): 325-40.

Abstract: The Clinician Administered PTSD Scale was employed with 76 traumatized Dutch subjects from different treatment centers and one social rehabilitation center. Subjects were traumatized either in childhood, in adolescence, or in early adulthood. The CAPS showed an overall agreement with clinical diagnosis of 79%, with a kappa coefficient of .58. Interrater agreement on the CAPS subscales of intensity (intrusion, avoidance, and hyperarousal) varied from .93 to .98. The internal consistency for all core symptoms of DSM-III-R at the CAPS intensity level for current PTSD was .89, and for lifetime PTSD .86. Concurrent validity was established by correlating the CAPS with the Mississippi Scale, the MMPI, and the Impact of Event Scale. All correlations were significant beyond .001. Finally, the CAPS items, both core symptoms and associative features, are discussed in detail at item level.

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Hryckowian, MJ and Gynther, MD. MMPI item subtlety: another look. *J Clin Psychol.* 1988 Mar; 44(2): 148-52.  
Abstract: This study examined the item subtlety-face validity issue by comparing MMPI Depression scale items rated in terms of psychopathology-in-general vs. specific depression criteria. The study also evaluated the influence of number of definitional descriptors and the meaning attributed to the neutral rating. Results showed substantial correlations among ratings obtained by different procedures, but many differences in subtle-neutral-obvious classifications. Number of descriptors did not effect ratings, although these results might not be found for less familiar constructs. Most raters took "neutral" to mean unrelated. These findings suggest that the inconsistencies in this research area are related to definitional problems and methodological ambiguities.

Hyer, L.; Boudewyns, PA; O'Leary, WC, and Harrison, WR. Key determinants of the MMPI PTSD subscale: treatment considerations. *J Clin Psychol.* 1987 May; 43(3): 337-40.  
Abstract: Seventy-five "in country" Vietnam combat psychiatric inpatients were given a battery of measures upon admission to the medical center. These included the MMPI, VETS Adjustment Scale, State-Trait Anxiety Scale, Rotter Locus of Control, Profile of Mood Scale, and a variation of the Figley Stress Scale that measures current stress. Post-traumatic stress disorder (PTSD) was determined by the MMPI-PTSD subscale. Ten of the battery variables were used as predictors for a multiple regression analysis on the MMPI-PTSD subscale. Results yielded a multiple R of .89 for two predictors, Figley Stress Scale and Rotter Locus of Control (external). Patients with PTSD, therefore, suffer most from perceived and experienced current stressors and a low sense of control. Arguments are made for more present-centered and interpersonal strategies in the treatment of PTSD combat veterans.

Hyer, L.; Davis, H.; Albrecht, W.; Boudewyns, P., and Woods, G. Cluster analysis of MCMI and MCMI II on chronic PTSD victims. *J Clin Psychol.* 1994 Jul; 50(4): 502-15.  
Abstract: A cluster analysis was used to identify groups of inpatients with confirmed post-traumatic stress disorder (PTSD) due to combat. In Study 1 the MCMI was administered to 256 subjects, in addition to the MMPI, PTSD measures, and background variables. Three clusters resulted: a Traumatic Personality (8-2), Schizoid Influence (8-2-1), and Antisocial Influence (8-6). Comparison on the MCMI symptom scales, MMPI, and PTSD scales showed that the Antisocial Influence cluster was "healthier" on all measures. The Schizoid Influence was most psychopathological. In Study 2 the MCMI-II was administered to 136 new subjects who met the same criteria as in Study 1. Four clusters resulted: Global (1-2-6A-6B-8A-8B), Subclinical (1), Aggressive (6A-6B-8A), and Detached/Self-defeating (1-2-8A-8B).

Hyer, L.; Gouveia, I.; Harrison, WR; Warsaw, J., and Coutsouridis, D. Depression, anxiety, paranoid reactions, hypochondriasis, and cognitive decline of later life inpatients. *J Gerontol.* 1987 Jan; 42(1): 92-4.  
Abstract: The relationships among the psychopathological states of depression, anxiety, hypochondriasis, paranoid reactions, and cognitive decline for later-life psychiatric inpatients were addressed. The relationship of these variables to life satisfaction, health, pain, and behavior was also considered. Sixty later-life (older than 55 years) psychiatric patients on an acute geropsychiatric unit were administered a battery of psychological scales; Mini Mental State, Beck Depression Inventory (somatic and psychological components), State-Trait Anxiety Scale, MMPI Paranoia scale (and Harris-Lingoes subscales), the Hypochondriasis Scale (Institutional Geriatric), Life Satisfaction Scale-Z, and self-rated pain responses. In addition, these patients were rated on the MACC-Behavioral Adjustment Scale and the Cumulative Illness Rating Scale. Results showed that there is a high degree of interrelationship among the psychopathological variables except cognition. Independent stepwise regression showed that life satisfaction was accounted for by hypochondriasis and anxiety; health, by depression; pain, by hypochondriasis; and behavior, by cognition.

Hyer, L.; Woods, MG; Summers, MN; Boudewyns, P., and Harrison, WR. Alexithymia among Vietnam veterans with posttraumatic stress disorder [see comments]. *J Clin Psychiatry.* 1990 Jun; 51(6): 243-7.  
Abstract: The authors studied 227 inpatients from a large Veterans Administration Medical Center to evaluate whether alexithymia is associated with posttraumatic stress disorder (PTSD) and to assess the validity of the Minnesota Multiphasic Personality Inventory (MMPI) alexithymia scale. Three groups--a carefully diagnosed PTSD group (N = 76), an alcohol abuse group (N = 76), and a general psychiatric group (N = 75)--were given a battery of psychological tests, including the MMPI, the Millon Clinical Multiaxial Inventory, and the Beck Depression Inventory, along with several cognitive measures. PTSD veterans were also evaluated on psychophysiological indices

(including a stressor) and on their subjective ratings to these indices. Results showed that alexithymia was more characteristic of PTSD patients than of the other groups. Also, alexithymia was inversely related to heart rate. Alexithymia was not significantly correlated with the subjective experience of stressors. The authors discuss the importance of the construct of alexithymia among PTSD patients and recommend the use of the alexithymia scale for these patients. The independence of this measure from the psychophysiological condition of hyperarousal and the subjective experience of this state were also addressed.

Hyer, LA; Albrecht, JW; Boudewyns, PA; Woods, MG, and Brandsma, J. Dissociative experiences of Vietnam veterans with chronic posttraumatic stress disorder. *Psychol Rep.* 1993 Oct; 73(2): 519-30.

Abstract: Interest in dissociation has been renewed, and its relationship to Post-traumatic Stress Disorder is especially intriguing. In this study 57 consecutively admitted chronic, combat-related Posttraumatic Stress Disorder sufferers were grouped by scores on a dissociative scale (Dissociative Experiences Scale). The three groups (high, medium, and low) were compared on personality measures (MMPI basic scales and subscales, and Millon's MCMI), Posttraumatic Stress Disorder measures, and a psychophysiological index of heart rate under baseline trauma conditions. The results showed that the survivors with more dissociative experiences show distinctive and higher symptom levels--excessive fearfulness, symptoms of strange experiences, and high tonic psychophysiological states--as well as greater severity of ratings of Posttraumatic Stress Disorder (on the Mississippi Scale). The discussion addressed the possible role of dissociation in Posttraumatic Stress Disorder.

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Abstract: Interest in dissociation has been renewed, and its relationship to Post-traumatic Stress Disorder is especially intriguing. In this study 57 consecutively admitted chronic, combat-related Posttraumatic Stress Disorder sufferers were grouped by scores on a dissociative scale (Dissociative Experiences Scale). The three groups (high, medium, and low) were compared on personality measures (MMPI basic scales and subscales, and Millon's MCMI), Posttraumatic Stress Disorder measures, and a psychophysiological index of heart rate under baseline trauma conditions. The results showed that the survivors with more dissociative experiences show distinctive and higher symptom levels--excessive fearfulness, symptoms of strange experiences, and high tonic psychophysiological states--as well as greater severity of ratings of Posttraumatic Stress Disorder (on the Mississippi Scale). The discussion addressed the possible role of dissociation in Posttraumatic Stress Disorder.

Irving, JB; Coursey, RD; Buchsbaum, MS, and Murphy, DL. Platelet monoamine oxidase activity and life stress as predictors of psychopathology and coping in a community sample. *Psychol Med.* 1989 Feb; 19(1): 79-90.

Abstract: The present study, using a diathesis-stress model, attempted to confirm prior findings with platelet monoamine oxidase (MAO) activity and stress in a middle-aged, non-clinic population. One hundred and seventy-eight adult males from a statewide community club were tested for platelet MAO activity and stressful life events and were also given a variety of psychological measures of both psychopathology and psychosocial coping. The data were examined both for correlations across the total sample and for a comparison of high-risk groups (top and bottom 15% of MAO activity) with a middle MAO group. Low platelet MAO activity was related to a higher incidence of contact with mental health professionals, and more frequent use of alcohol and cigarette smoking. High MAO activity was related to higher levels of anxiety and somatization. High levels of stress were related to increased psychosocial problems reported for female and family members, higher scores on two schizophrenia-related MMPI scales (schizophrenia and paranoia subscales), but fewer idiosyncratic associations, elevated hypomanic, depression, and anxiety scores, increased alcohol use, and increased use of prescribed antianxiety and sedative medication. Neither MAO nor stress were related to current levels of psychosocial coping. Moreover, no interaction effects were uncovered for MAO activity and stress combined.

Ito, LM; Gorenstein, C.; Gentil, V., and Miyakawa, E. Minnesota Multiphasic Personality Inventory correlates of panic disorder with agoraphobia: changes with treatment. *Braz J Med Biol Res.* 1995 Sep; 28(9): 961-5.

Abstract: Forty-seven patients meeting DSM-III-R criteria for panic disorder with agoraphobia (PAG) were assessed by the Minnesota Multiphasic Personality Inventory (MMPI) at baseline and after 8 weeks of treatment with imipramine, clomipramine and placebo. At pre-treatment patients had higher MMPI scores than the local normative data, the highest scores being for depression, hypochondria and hysteria. At week 8 the scores of most MMPI scales were significantly reduced. In addition, patients who showed clinical improvement had pre- and post-treatment scores lower than the unimproved patients. The results suggest that the abnormal MMPI profile found in PAG patients reflects the clinical state and that personality pathology relates to treatment outcome. The reduction in MMPI scores was associated with response to active treatment. We conclude that therapeutic interventions that

successfully reduce PAG symptoms also modify personality scores.

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Jackson, DN and Hoffmann, H. Common dimensions of psychopathology from the MMPI and the Basic Personality Inventory. *J Clin Psychol.* 1987 Nov; 43(6): 661-9.

Abstract: The MMPI and the Basic Personality Inventory (BPI) were administered to 235 male hospitalized psychiatric patients who were undergoing treatment for alcoholism. The 13 validity and clinical scales from the MMPI and the 12 scales from the BPI were subjected to principal axes factor analysis and Varimax rotation. The five factors retained for interpretation, which accounted for more than 96% of the common variance, each had loadings from both the MMPI and the BPI. Factors were identified as Inadequate Impulse Control, Generalized Anxiety, Depression and Somatization, Psychotic Processes, and Depressed Withdrawal. Given the high percentage of variance accounted for by the factors, it was concluded that the MMPI and BPI measure the same broad domain of psychopathology.

Janczur, Bidzan M. [The influence of infertility on women's personality]. *Psychiatr Pol.* 1995 Jul-Aug; 29(4): 471-8.

Abstract: The purpose of this investigation was to analyze several personality dimensions including several psychopathological symptoms of women experiencing infertility. 70 females experiencing infertility and 50 healthy women were examined using psychological methods: MMPI and the State-Trait Anxiety Inventory by Spielberger, Gorsuch and Lushene. Personality profiles did not differ significantly for the two groups (remained within normal limits). In comparison with healthy women, women treated because of infertility displayed significantly higher level of anxiety as a state.

Jess, P. Gastric acid secretion in relation to personality, affect and coping ability in duodenal ulcer patients. A multivariate analysis. *Hvidovre Ulcer Project Group. Dan Med Bull.* 1994 Feb; 41(1): 100-3.

Abstract: The role of personality, mood state (affect) and coping ability (ego strength) on basal and stimulated gastric acid secretion were assessed in 56 duodenal ulcer patients using the Minnesota, Multiphasic Personality Inventory. The patients had high scores on most MMPI scales, but basal acid output was related significantly only to the hypochondriasis scale and the validity scale L. Peak acid output was related significantly only to the validity scale L. Both basal and peak acid output were related significantly, but positively to coping ability. No relations were found to mood state. The personality disorders found in peptic ulcer patients may evidently be consequences of the disease rather than causal factors.

Jess, P. and Eldrup, J. The personality patterns in patients with duodenal ulcer and ulcer like dyspepsia and their relationship to the course of the diseases. *Hvidovre Ulcer Project Group. J Intern Med.* 1994 Jun; 235(6): 589-94.

Abstract: OBJECTIVES. To compare personality characteristics in duodenal ulcer patients and patients with ulcer-like dyspepsia from the primary health sector with duodenal ulcer patients from a hospital and to evaluate the relationship of the personality characteristics to the course of the diseases. DESIGN. A prospective study using the Minnesota Multiphasic Personality Inventory (MMPI) with retesting of a subgroup of patients after a median observation period of 14 months. SETTING. Departments of Medical and Surgical Gastroenterology, Hvidovre University Hospital, and the primary health sector in Roskilde County, Denmark. SUBJECTS. Sixty hospital patients with duodenal ulceration and 17 patients with duodenal ulceration plus 25 patients with ulcer-like dyspepsia from the primary health sector. MAIN OUTCOME MEASURES. MMPI scores. RESULTS. The hospital patients differed from the two other groups of patients by having higher scores of depression and anxiety ( $P < 0.05$ ). Twenty-eight of the patients were retested with MMPI. Contrary to the patients with persisting complaints, abnormal personality characteristics disappeared in patients without complaints ( $P < 0.05-0.001$ ). CONCLUSIONS. The results indicate that abnormal personality characteristics in patients with functional and organic upper dyspepsia are

consequential rather than causal factors.

Jones, BP; Duncan, CC; Brouwers, P., and Mirsky, AF. Cognition in eating disorders. *J Clin Exp Neuropsychol.* 1991 Sep; 13(5): 711-28.

Abstract: Cognitive functions were investigated in four groups of women: 30 underweight anorexics, 38 normal-weight bulimics, 20 long-term weight-restored anorexics, and 39 normal controls. A MANOVA was used to examine performance on five neuropsychological domains derived from prior principal components analyses of a comprehensive neuropsychological battery. Underweight anorexics performed more poorly than normal controls in four of five neuropsychological domains (focusing/execution, verbal, memory, and visuospatial), while normal-weight bulimics showed poorer performances only in focusing/execution. The absolute differences in scores between eating disorder groups and normal controls were for the most part small, suggesting subtle rather than frank cognitive difficulties. Poorer neuropsychological test performance was associated with anxiety but not depression as measured by the Tryon, Stein, and Chu Tension scale and scale 2 of the MMPI respectively. The findings support previous reports of attentional difficulties in eating disorders but do not support the hypothesis of differential right-hemisphere dysfunction in eating disorders.

Kalichman, SC. Psychopathology and personality characteristics of criminal sexual offenders as a function of victim age [published erratum appears in *Arch Sex Behav* 1992 Apr;21(2):215]. *Arch Sex Behav.* 1991 Apr; 20(2): 187-97.

Abstract: The affective, personality and psychopathological characteristics of incarcerated adult sex offenders was studied. Subjects were 144 men divided into three groups based on the age of their victims: prepubescent children, postpubescent adolescents, and adults. Results indicated significant differences between groups in trait anxiety and anger, self-esteem, and 7 of 13 MMPI scales. Results suggest a linear relationship between victim age and psychopathology, with child offenders displaying the greatest affective and thought disturbance. Adolescent offenders scored between child and adult offenders on most measures. Results are discussed in the context of theoretical explanations for sexual aggression and treatment.

Kaplan, RF; Meadows, ME; Vincent, LC; Logigian, EL, and Steere, AC. Memory impairment and depression in patients with Lyme encephalopathy: comparison with fibromyalgia and nonpsychotically depressed patients. *Neurology.* 1992 Jul; 42(7): 1263-7.

Abstract: Lyme encephalopathy, primarily manifested by disturbances in memory, mood, and sleep, is a common late neurologic manifestation of Lyme disease. We compared 20 patients with Lyme encephalopathy with 11 fibromyalgia patients and 11 nonpsychotically depressed patients using the California Verbal Learning Test, Wechsler Memory Scale, Rey-Osterrieth Complex Figure Test, Minnesota Multiphasic Personality Inventory (MMPI), and Beck Depression Inventory. Compared with patients with fibromyalgia or depression, the Lyme encephalopathy group showed mild, but statistically significant, memory deficits on two of the three memory tests. In contrast, the patients with fibromyalgia scored significantly higher than both other groups on the MMPI scale most sensitive to somatic concerns (scale 1), while the depressed patients scored higher than the Lyme patients on the scales most sensitive to depression (scale 2) and anxiety (scale 7). Physical complaints and depression were not major factors in memory performance among Lyme patients. These data support the hypothesis that Lyme encephalopathy is caused by CNS dysfunction and cannot be explained as a psychological response to chronic illness.

Kataeva, NG; Krasik, ED, and Komandenko, NI. [Neuropsychological syndromes in hereditary neuromuscular pathology]. *Zh Nevropatol Psikhiatr Im S S Korsakova.* 1992; 92(4): 31-5.

Abstract: Clinical and experimental psychological studies (MMPI, Eisenks's questionnaire, methods by Luria and Kraepelin, types of attitude toward disease) carried out in 157 adults and children with progressive myodystrophies and amyotrophies revealed alterations in the neuropsychic sphere in 134 patients (85%). In the structure of borderline disorders, depressive disturbances prevailed (54.5%), and the asthenic and psychopathlike symptomatology could be seen. The use of the psychopharmacological and psychotherapeutic correction promoted regression of the psychopathological symptomatology in 76% of adults and in 84% of children.

Khan, FI; Welch, TL, and Zillmer, EA. MMPI 2 profiles of battered women in transition. *J Pers Assess.* 1993 Feb; 60(1): 100-11.

Abstract: Domestic violence is a widespread problem in our society that has not been extensively studied using psychological assessment tools. In this investigation, the psychological functioning of battered women in transition was examined through the use of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Thirty-one women (M age = 30 years, M education = 11.5 years) were evaluated as residents in a confidential shelter operated by

Women Against Abuse. All subjects were asked to complete the MMPI-2 as well as information on their history of length, severity, and types of abuse (i.e., physical and/or psychological). Results indicated elevated MMPI-2 profiles in 90% of the subjects with the most frequent code type being a combination of Scales F, 4, 6, and 8. Scales 2 and 7, which are often associated with depression, anxiety, and other forms of subjective distress, were not consistently elevated. Supplementary MMPI-2 scales revealed elevations on scales MAC-R, Mt, PK, and PS. Regression analysis indicated significant relationships between length and severity of psychological forms of abuse and overall levels of psychological distress (i.e., F scale and average clinical T-score). Age and physical forms of abuse were not related to MMPI indices of psychological disturbance. Theoretical issues of domestic violence, intervention strategies with battered women, and the dangers of misdiagnosis are discussed.

Kim, CH; Hsu, JJ; Williams, DE; Weaver, AL, and Zinsmeister, AR. A prospective psychological evaluation of patients with dysphagia of various etiologies. *Dysphagia*. 1996 Winter; 11(1): 34-40.

Abstract: We hypothesized that patients who complain of dysphagia without demonstrable organic abnormality may have an underlying psychological dysfunction. We thus conducted a comprehensive assessment in three groups of patients with dysphagia. Dysphagia was classified as obstructive (Obst) when an obstructive lesion was present on esophagoscopy or barium swallow, motility-related (Mot) when abnormal motility was shown on esophageal manometry in the presence of normal esophagoscopy or barium swallow, or nonobstructive, nonmotility-related (NONM) when manometry and esophagoscopy or barium swallow were both normal. We prospectively evaluated 71 patients with Obst-dysphagia, 15 patients with Mot-dysphagia and 10 patients with NONM-dysphagia with a battery of standardized psychological tests including the Minnesota Multiphasic Personality Inventory (MMPI), the Symptom Checklist-90-Revised (SCL-90-R), and the Millon Behavioral Health Inventory (MBHI). The results indicate that patients with NONM-dysphagia have psychological attributes similar to those found in patients with Obst-dysphagia or Mot-dysphagia. Combination of scores for parameters such as somatization, depression, and anxiety could not distinguish among the three groups of dysphagia patients. We thus conclude that patients with NONM-dysphagia, as a group, have similar psychological profiles compared to patients with dysphagia due to organic causes.

Kinder, BN; Curtiss, G., and Kalichman, S. Affective differences among empirically derived subgroups of headache patients. *J Pers Assess*. 1992 Jun; 58(3): 516-24.

Abstract: We (Kinder, Curtiss, & Kalichman, 1991) reported four distinct subgroups of male and female headache patients based on the results of a cluster analysis of the Minnesota Multiphasic Personality Inventory (MMPI). We extended these results by providing further descriptive information of the subgroups. The MMPIs of 229 (52 males and 177 females), composing the second cohort in our (Kinder et al., 1991) study of headache patients, were reclassified into subgroups. Differences between subgroups on independent measures of anxiety, anger, anger expression, and depression were investigated. Significant differences were found among the empirically derived subgroups. Results are discussed in the context of previous research on headache and back pain patients.

Klieser, E. and Lehmann, E. Experimental examination of trazodone. *Clin Neuropharmacol*. 1989; 12 Suppl 1: S18-24.

Abstract: To establish the differential indication of trazodone and to find the predictors of its efficacy, we conducted a study in which 45 patients with major depressive disorder and 75 patients with acute schizophrenia were randomly assigned under double-blind conditions to either 400 mg trazodone daily, 150 mg amitriptyline daily, 20 mg haloperidol daily, or placebo daily. At the beginning of the investigations, numerous variables (basic data, MMPI, AMDP, HAM-A, HAM-D) were documented and evaluated on days 3, 7, 14, and 21. In our study, trazodone proved to be as effective an antidepressant drug as amitriptyline. In group comparison, no antipsychotic action of trazodone in schizophrenic patients could be proved. Yet the trazodone treatment was clearly of less risk than the amitriptyline treatment. Under trazodone, provocation of schizophrenic symptoms, which occurred numerous under amitriptyline, was found only in one patient out of 17 schizophrenics. Related to anamnesis and characteristics of the schizophrenic patient, a predictor-variable concerning the antipsychotic effect was not found. It can be assured, however, that patients with depressive symptoms (regarding the entity classification) respond to trazodone. After only 7 days of trazodone treatment, a relatively reliable decision can be established as to whether a therapeutical success can be expected if treatment is continued.

Klonoff, H.; Fleetham, J.; Taylor, DR, and Clark, C. Treatment outcome of obstructive sleep apnea. Physiological and neuropsychological concomitants. *J Nerv Ment Dis*. 1987 Apr; 175(4): 208-12.

Abstract: This study examines the cognitive and emotional changes associated with successful surgical treatment of patients with obstructive sleep apnea (OSA). By comparing the OSA patients with patients undergoing coronary

artery bypass surgery before (2 weeks) and after (3 months) surgical intervention on a comprehensive psychological battery, it was determined that both groups exhibited anxiety and depression before surgery and these elevations (MMPI) were significantly lower after surgery. However, no differences were found between groups on any emotional or cognitive variable before or after surgical treatment.

Koretzky, MB and Peck, AH. Validation and cross validation of the PTSD subscale of the MMPI with civilian trauma victims. *J Clin Psychol.* 1990 May; 46(3): 296-300.

Abstract: The 49-item MMPI PTSD Subscale, developed and validated with Vietnam combat veterans, was administered to validation and cross-validation samples of Posttraumatic Stress Disorder (PTSD) patients who had experienced non-military traumatic events and to psychiatric controls (total N = 69). Using a cutting score of 19, derived from the validation sample only, the PTSD subscale correctly classified 87% of all validation subjects and 88% of all cross-validation subjects. Results strongly support the utility of MMPI assessment of PTSD with civilian trauma victims as one component of a broad assessment strategy.

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Koretzky, MB and Rosenoer, AS. MMPI assessment of posttraumatic stress disorder among alcoholic Vietnam veterans. *Psychol Rep.* 1987 Apr; 60(2): 359-65.

Krupitsky, EM; Burakov, AM; Ivanov, VB; Krandashova, GF; Lapin, IP, and Grinenko, AJaBorodkin YuS. Baclofen administration for the treatment of affective disorders in alcoholic patients. *Drug Alcohol Depend.* 1993 Sep; 33(2): 157-63.

Abstract: Ninety alcoholic patients with the secondary affective disorders (anxiety, depression) were divided into four groups. Patients in the first group received GABAB receptor ligands (baclofen), those in the second group, diazepam, those in the third group, amitriptyline and those in the fourth group, placebo. The results of clinical, psychological (tests of Spielberger, Zung and MMPI), and electrophysiological (superslow omega-potential) investigations showed that baclofen is an effective drug for affective disturbances in alcoholic patients, with efficacy superior to placebo and equal to diazepam and amitriptyline. At the same time baclofen does not have the side-effects and complications of the latter. Significant changes in platelet MAOB activity and the dopamine, serotonin and GABA concentrations in blood after treatment were not found in the four patient groups. The peripheral metabolism of GABA and monoamines do not seem to be related to the development of secondary affective disorders in alcoholic patients. This investigation encourages the search for drugs acting on the affective psychopathology of GABAB receptor ligands.

Kuhne, A.; Orr, S., and Baraga, E. Psychometric evaluation of post traumatic stress disorder: the Multidimensional Personality Questionnaire as an adjunct to the MMPI. *J Clin Psychol.* 1993 Mar; 49(2): 218-25.

Abstract: Two groups of Vietnam veterans--Post-traumatic stress disorder (PTSD, n = 17) and non-PTSD (n = 80)--were developed from a sample of treatment-seeking alcohol abusers. The subjects completed a Combat Experiences Questionnaire, a PTSD Symptom Scale, the MMPI, and the Multidimensional Personality Questionnaire (MPQ). The MPQ proved to be a useful adjunct to the MMPI in describing the major manifestations of PTSD among alcohol-abusing veterans.

Leont'Eva, IV; Metel'Skaia, VA; Sipiagina, AE; Dobrynina, MV, and Aingorn, ED. [The psychological characteristics of adolescents with ischemic heart disease in their anamnesis and their linkage to the lipoprotein spectrum indices]. *Zh Nevropatol Psikhiatr Im S S Korsakova.* 1994; 94(3): 51-5.

Abstract: A psychological survey (MMPI, Wolff, Rosenzweig, Spielberger, Eysenck tests) of 70 adolescents with family history of coronary heart disease established the following personality traits in them: activity, leadership inclinations, extroversion, impulsiveness, heteroaggressiveness coupled with inner strain, anxiety. The anxiety, heteroaggression, extroversion correlated with atherogenic changes in lipoprotein spectrum.

Levenstein, S.; Prantera, C.; Varvo, V.; Spinella, S.; Arca, M., and Bassi, O. Life events, personality, and physical risk factors in recent onset duodenal ulcer. A preliminary study. *J Clin Gastroenterol.* 1992 Apr; 14(3): 203-10.  
Abstract: To clarify the interactions between stressful life events and other risk factors in the development of duodenal ulcer disease, we studied 33 patients with active ulcer, symptomatic for less than or equal to 6 months and untreated during the previous year, using the Paykel Interview for stressful life events, the Minnesota Multiphasic Personality Inventory (MMPI), and Zung's Anxiety and Depression scales. MMPIs were abnormal in 64% of the patients, and 61% showed some degree of depression. The 16 patients whose symptoms had been preceded by severe stress and more pathological MMPIs, especially on paranoia and dependency scales; were more depressed; and had used less nonsteroidal anti-inflammatory drugs than those without ( $p$  less than 0.05). They were somewhat more likely to be single, to be of low social class, and to have recently increased use of cigarettes, alcohol, or coffee (though their absolute level of alcohol consumption was low). Anxiety levels did not differ between stress and nonstress groups. Correspondence analysis yielded four clusters of patients, characterized by (a) alcohol/cigarette use, personality disorder, chronicity; (b) early onset, neurosis; (c) depression, life events; (d) late onset, psychosocial stability. The analysis changed little according to whether life events were or were not considered in cluster formation. We conclude that ulcer patients who become ill under stress from a distinct subgroup, that depressed mood and stress-related increases in use of alcohol and cigarettes may mediate between stress and ulcer formation, and that life events are a quantitatively minor factor in ulcerogenesis.

Litz, BT; Penk, WE; Walsh, S.; Hyer, L.; Blake, DD; Marx, B.; Keane, TM, and Bitman, D. Similarities and differences between MMPI and MMPI 2 applications to the assessment of posttraumatic stress disorder. *J Pers Assess.* 1991 Oct; 57(2): 238-53.

Abstract: The purpose of this study was to address the question: Is the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) comparable to the original MMPI in its applicability to the assessment of posttraumatic stress disorder (PTSD) among Vietnam combat veterans? The question was addressed by administering both the original MMPI and MMPI-2 to 29 subjects classified as meeting Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.; DSM-III-R) criteria for PTSD and comparing MMPI and MMPI-2 scores in terms of: degree of association, code-type congruence, diagnostic hit rates (when compared to two other clinical samples, and one normal sample), and congruence of the Keane PTSD Scale (PK). Results reveal highly significant correlations between MMPI and MMPI-2 basic scales for the PTSD sample as well as congruence in 2-point codes comparable to previous studies. The MMPI-2 was found to identify effectively PTSD subjects from the other groups. Results also showed a high degree of association between the MMPI and MMPI-2 in regard to PK scores, although minor differences were found in PK raw scores between the two tests. Overall, the findings suggest a high degree of comparability between the MMPI and MMPI-2 in the assessment of PTSD.

Lobstein, DD; Ismail, AH, and Rasmussen, CL. Beta endorphin and components of emotionality discriminate between physically active and sedentary men. *Biol Psychiatry.* 1989 May; 26(1): 3-14.

Abstract: Differences between physically active and sedentary men were tested by profile comparison. The study identifies the relative importance of circulating beta-endorphin (BE), atherosclerotic disease risk (ADR) index, and selected components of emotionality in discriminating between physically active and sedentary men. The subjects were psychologically normal and medically healthy middle-aged men. Jogging activity was the subject classification criterion. The data were collected on selected physiological (treadmill), biochemical (blood collected from resting subjects), and psychological (Eysenck and MMPI) variables. The physical fitness score (PFS) was used as an index of fitness. Physically active men with a high PFS ( $n = 21$ ), when compared to the sedentary men with a low PFS ( $n = 15$ ), exhibited lower basal plasma BE, lower ADR, lower anxiety index (AI), and lower MMPI depression score (D). Canonical correlation analysis showed that PFS and BE in one set were correlated with D and neuroticism (NS) in another set of variables. Discriminant function analysis showed that the AI was the most powerful discriminator between the physically active and sedentary men, followed by BE and NS. Interestingly, BE and NS exhibited the same magnitude of discrimination power. The ADR exhibited less discrimination power, relative to AI, BE, and NS. In conclusion, the physically active men, compared to the sedentary men in this study, exhibited lower basal plasma BE, which appeared to be associated with less atherosclerotic disease risk, less neuroticism, less anxiety, and less depression.

Long, R.; Wine, P.; Penk, W.; Keane, T.; Chew, D.; Gerstein, C.; O'Neill, J., and Nadelson, T. Chronicity. Adjustment differences of Vietnam combat veterans differing in rates of psychiatric hospitalization. *J Clin Psychol.* 1989 Sep; 45(5): 745-53.

Abstract: The study focuses on the frequency of inpatient care for patients with Posttraumatic Stress Disorder (PTSD). This factor, termed "chronicity," is, perhaps surprisingly, largely overlooked in many PTSD studies. The

significance of chronicity was addressed through administration of Minnesota Multiphasic Personality Inventory (MMPI) to Vietnam Theater and Era veterans in an inpatient psychiatry service. MMPI scores were analyzed for two main effects: combat exposure and chronicity (i.e., number of inpatient psychiatry admissions). The results replicated research showing combat exposure is associated with greater maladjustment (i.e., higher MMPI scores). Moreover, chronicity also emerged as a significantly important variable: of all groups compared, Vietnam combat veterans higher in chronicity scored higher on MMPI clinical scales, particularly on scales Paranoia, Psychasthenia, and Schizophrenia, thereby (a) empirically establishing (a) the methodological point that number of admissions must be controlled and (b) the substantive point that chronicity is important in studies of PTSD.

Lubin, B.; Rahaim, S.; Rinck, CM, and Nickel, EJ. MMPI experimental scale correlates of the MAACL R with male alcoholics. *Psychol Rep.* 1991 Oct; 69(2): 460-2.

Abstract: Concurrent and discriminative validity of the MAACL--R scales were studied by means of correlations with selected MMPI experimental scales (AR, DR, HOS, Poor Morale, and ES) for a sample of 88 male VA alcoholics. Concurrent validity of Anxiety, Depression, Hostility and PASS, and discriminative validity of the Anxiety scale were confirmed.

MacMillan, JS and Valliant, PM. Occupational stress and behavioral change. *Percept Mot Skills.* 1987 Jun; 64(3 Pt 2): 1061-2.

Abstract: For 25 secretaries employed at Laurentian University, scores on the MMPI Depression Scale, State-Trait Anxiety Questionnaire, Self-esteem Inventory, Jenkins Activity Survey, and Occupational Stress Questionnaires showed no significant change in behavior associated with occupational stress. Characteristics 'hard-driving' and 'speed-impatience' were predictors of Type A behavior.

Malow, RM; West, JA; Corrigan, SA; Pena, JM, and Lott, WC. Cocaine and speedball users: differences in psychopathology. *J Subst Abuse Treat.* 1992 Fall; 9(4): 287-91.

Abstract: Affective distress and related symptoms associated with co-injected cocaine and opioid ("speedball") use are incompletely explored, and the extent to which they diverge from problems shown by cocaine abusers who do not prefer opioids is unknown. This investigation compared groups of speedball and non-speedball cocaine users on global measures of depression and anxiety and modal groupings of personality characteristics measured by the MMPI. Compared to men who use cocaine without opioids, compulsive speedball users evidenced significantly greater problems with depression, trait anxiety, and related symptomatology, and were more uniformly characterized by modal profiles reflecting severe psychopathology and maladjustment. These results agree with descriptions of severe pathology associated with speedball use.

Mann, BJ. The North Carolina Dissociation Index: a measure of dissociation using items from the MMPI 2. *J Pers Assess.* 1995 Apr; 64(2): 349-59.

Abstract: The development of a new measure of dissociation using items from the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is described. In Experiment 1, 525 college students were administered a measure of hypnotic susceptibility and completed several specialized measures of dissociation or dissociation-like experiences. The new measure, the North Carolina Dissociation Index (NCDI) demonstrated adequate internal consistency and good convergent validity. In Experiment 2, the NCDI demonstrated adequate internal consistency and test-retest reliability with a different sample of college students. Moreover, NCDI scores showed a relatively strong correlation with an interview-based measure of dissociative symptoms. In addition, a small sample of students with dissociative disorders had significantly higher NCDI scores than students with anxiety disorders and normal control subjects. In Experiment 3, 19 gang combat veterans were administered a semistructured diagnostic interview and the MMPI-2. Subjects who were diagnosed with Posttraumatic Stress Disorder (PTSD) scored significantly higher on the NCDI than subjects who did not have PTSD. The NCDI is intended primarily as a tool in settings where the MMPI-2 is routinely administered.

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Marmar, CR; Weiss, DS; Schlenger, WE; Fairbank, JA; Jordan, BK; Kulka, RA, and Hough, R. L. Peritraumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *Am J Psychiatry.* 1994 Jun; 151(6): 902-7. Abstract: OBJECTIVE: The aim of this study was to determine the reliability and validity of a proposed measure of peritraumatic dissociation and, as part of that effort, to determine the relationship between dissociative experiences during disturbing combat trauma and the subsequent development of posttraumatic stress disorder (PTSD). METHOD: A total of 251 male Vietnam theater veterans from the Clinical Examination Component of the National Vietnam Veterans Readjustment Study were examined to determine the relationship of war zone stress exposure, retrospective reports of dissociation during the most disturbing combat trauma events, and general dissociative tendencies with PTSD case determination. RESULTS: The total score on the Peritraumatic Dissociation Experiences Questionnaire--Rater Version was strongly associated with level of posttraumatic stress symptoms, level of stress exposure, and general dissociative tendencies and weakly associated with general psychopathology scales from the MMPI-2. Logistic regression analyses supported the incremental value of dissociation during trauma, over and above the contributions of level of war zone stress exposure and general dissociative tendencies, in accounting for PTSD case determination. CONCLUSIONS: These results provide support for the reliability and validity of the Peritraumatic Dissociation Experiences Questionnaire--Rater Version and for a trauma-dissociation linkage hypothesis: the greater the dissociation during traumatic stress exposure, the greater the likelihood of meeting criteria for current PTSD.

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criteria for current PTSD.

Marsh, DT; Stile, SA; Stoughton, NL, and Trout, Landen BL. Psychopathology of opiate addiction: comparative data from the MMPI and MCMI. *Am J Drug Alcohol Abuse*. 1988; 14(1): 17-27.

Abstract: The MMPI and MCMI were administered to 163 former opiate addicts who were being maintained in a methadone program affiliated with an urban hospital. Highest group mean MMPI scores were found for Psychopathic Deviate, Depression, Hypomania, and Hysteria. For the MCMI, highest group mean clinical syndrome scores were found for Drug Abuse, Alcohol Abuse, Anxiety, and Dysthymia; highest personality disorder scores were found for Antisocial, Narcissistic, Histrionic, and Paranoid. The MCMI Drug Abuse Scale identified only 49% of subjects as having a recurrent or recent history of drug abuse. Frequency and factor analyses documented the heterogeneity of the population with respect to clinical syndromes, as well as the prevalence of personality disorders (86% had elevations on MCMI Personality Scales). Factor and correlational analyses did not provide strong evidence of similar factor structure or convergent validity of the MMPI and MCMI with this population.

Mazzetti, M.; Mozzetta, A.; Soavi, GC; Andreoli, E.; Foglio, Bonda PG; Puddu, P., and DecaMinada, F. Psoriasis, stress and psychiatry: psychodynamic characteristics of stressors. *Acta Derm Venereol Suppl Stockh*. 1994; 186: 62-4.

Abstract: The aim of this investigation was to learn how a stressful event, often very mild, can determine a relapse of psoriasis. The research was carried out with clinical interviews and with the administration of Rorschach Psychoreactive, MMPI and H-T-P tests to 80 in-patients. Our data revealed a high prevalence of psychic disorders: 71.2% of patients showed symptoms which allowed a precise psychiatric diagnosis based on DSM-III-R criteria. 35% had personality disorders, 17.5% were moody, 12.5% were anxious and 6.25% had a schizophrenic trait. The analysis of the stressful events enabled us to determine the presence of a specific event in 88.7% of cases. For the majority of patients, the stressful event was felt as very mild: 67.6% of patients reported the existence of a low-impact stressful event according to the DSM-III-R classification. The average evaluation of the stressful event for all patients, based on a five-stage rating (ranging from 2 'light' to 6 'catastrophic') was 2.56. In conclusion, the analysis of the psychic conditions of in-patients showed that the importance in inducing an acute episode of psoriasis is the meaning of a stressful event as experienced by the patient, i.e. the questioning of his own identity, rather than the intensity of the aforementioned stressful event. In this case, the disease appears to be an attempt to express a defensive somatic response to a possible identity crisis.

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McCaffrey, RJ and Bellamy, Campbell R. Psychometric detection of fabricated symptoms of combat related post traumatic stress disorder: a systematic replication. *J Clin Psychol*. 1989 Jan; 45(1): 76-9.

Abstract: Vietnam veterans with post-traumatic stress disorder (n = 11) and two other groups of Vietnam veterans (n = 24) instructed to fabricate symptoms of post-traumatic stress disorder completed the MMPI. A discriminant function analysis that used scale F and the post-traumatic stress disorder subscale correctly classified 91% of the subjects. This systematic replication supports the utility of the MMPI as a component in evaluating the validity of self-reported symptoms of post-traumatic stress disorder in Vietnam veterans.

McCaffrey, RJ; Hickling, EJ, and Marrazzo, MJ. Civilian related post traumatic stress disorder: assessment related issues. *J Clin Psychol*. 1989 Jan; 45(1): 72-6.

Abstract: The psychological characteristics of civilians (N = 26) with a post-traumatic stress disorder (PTSD) were investigated in order to determine whether the assessment and diagnostic decision rules developed using the MMPI with combat-related PTSD apply to civilian-related PTSD. The results indicate that there are substantial differences between the two PTSD populations and that further research is warranted to delineate other qualitative and quantitative aspects.

McCormack, JK; Patterson, TW; Ohlde, CD; Garfield, NJ, and Schauer, AH. MMPI configural interpretation as applied to posttraumatic stress disorder in Vietnam veterans. *J Pers Assess.* 1990 Summer; 54(3-4): 628-38.  
Abstract: This study investigated the systems of Minnesota Multiphasic Personality Inventory (MMPI) configural interpretation of Skinner and Jackson (1978) and Kuncie (1979) with Vietnam veterans with posttraumatic stress disorder (PTSD). MMPI profiles of four groups differing in combat exposure were compared on four MMPI configural variables from Kuncie (1979) and Skinner and Jackson (1978). The four groups were (a) PTSD sufferers, (b) Vietnam combat veterans without PTSD, (c) Vietnam noncombat veterans, and (d) Vietnam era veterans. All groups were further divided into hospitalized versus nonhospitalized subgroups. Dependent variables were Skinner and Jackson's (a) sociopathic modal profile, (b) neurotic profile, (c) psychotic profile, and (d) Kuncie's emotional expression (enthusiastic-reserved) dimension. Results indicated that hospitalized PTSD subjects had significantly higher scores on Skinner and Jackson's neurotic profile; both hospitalized and nonhospitalized PTSD subjects had higher scores on the psychotic profile and were more "reserved" on Kuncie's emotional expression dimension. Results were interpreted in terms of configural MMPI interpretation systems and the adjustment of Vietnam veterans with PTSD. PTSD was viewed as exhibiting cognitive, somatic, and affective features.

McCranie, EW and Brandsma, JM. Personality antecedents of burnout among middle aged physicians. *Behav Med.* 1988 Spring; 14(1): 30-6.  
Abstract: Utilizing a prospective design, this study addressed the question of whether vulnerability to burnout among physicians is associated with certain longstanding, maladaptive personality tendencies that predate entrance into medical training and subsequent exposure to the intrinsic stresses of medical practice. Subjects were 440 practicing physicians whose personality traits and psychological adjustment had been assessed with the Minnesota Multiphasic Personality Inventory (MMPI) shortly before entering medical school who were followed up by mail questionnaire an average of 25 years later to evaluate current symptoms of burnout with the Tedium scale. Results revealed that higher burnout scores were significantly correlated with a number of standard and special MMPI scales measuring low self-esteem, feelings of inadequacy, dysphoria and obsessive worry, passivity, social anxiety, and withdrawal from others. In contrast, burnout scores exhibited no significant associations with demographic or practice characteristics, including sex, age, medical specialty, practice arrangement, hours worked per week, or percentage of work time spent in direct contact with patients. Alternative interpretations of these findings and their potential implications for reducing the risk of burnout among physicians are discussed.

McCranie, EW and Hyer, LA. Self critical depressive experience in posttraumatic stress disorder. *Psychol Rep.* 1995 Dec; 77(3 Pt 1): 880-2.  
Abstract: Consistent with prior research, 73 hospitalized male Vietnam veterans with combat-related Posttraumatic Stress Disorder (PTSD) reported high scores on Self-criticism as measured by the Depressive Experiences Questionnaire. Self-criticism scores predicted greater severity of PTSD (Mississippi scale) after controlling for symptomatic depression (MMPI-D scale), suggesting that the nature of depression in Posttraumatic Stress Disorder differs from that in major depressive disorder.

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McCreary, CP; Clark, GT; Merrill, RL; Flack, V., and Oakley, ME. Psychological distress and diagnostic subgroups of temporomandibular disorder patients. *Pain.* 1991 Jan; 44(1): 29-34.  
Abstract: This study examined the nature and extent of psychological differences among diagnostic subgroups of temporomandibular disorder (TMD) patients. Three subgroups were identified and labeled as: (1) primary myalgia, (2) primary temporomandibular joint (TMJ) problems, or (3) combination myalgia and TMJ problems. Patients' (n = 112) levels of pain and distress were measured using a VAS pain scale, the McGill Pain Questionnaire, the Beck

Depression Inventory, the State-Trait Anxiety Scale and the MMPI. Patients with primary myalgia had the highest scores on the pain and distress measures while patients in the combination group scored between the myalgia and TMJ problem subgroups. When differences in pain levels were controlled, the differences among groups on measures of anxiety and depression were attenuated while the differences on measures of somatic overconcern remained significant. Discriminant function analysis using psychological variables to predict diagnostic grouping produced correct identification of 74% of the structural patients and 46% of the myalgia patients. Implications for different etiological factors among the 3 groups are discussed.

McFall, ME; Moore, JE; Kivlahan, DR, and Capestany, F. Differences between psychotic and nonpsychotic patients on content dimensions of the MMPI Sc scale. *J Nerv Ment Dis.* 1988 Dec; 176(12): 732-6.

Abstract: This study examined elevated MMPI Sc scores among psychotic and nonpsychotic patients to determine whether homogeneous item-content dimensions could clarify the precise meaning of elevations on scale Sc. A total of 45 psychotic patients were compared with 56 nonpsychotic psychiatric patients on the Harris and Lingoes subscales of the Sc scale. All subjects had T-score elevations on scale Sc greater than or equal to 70. The two criterion groups did not differ on overall scale Sc scores, but a distinctive pattern of subscale scores emerged that discriminated the samples. Psychotic patients obtained significantly higher scores on subscales measuring bizarre thinking and perceived loss of control over impulses and emotions. Conversely, nonpsychotics endorsed significantly more items on subscales concerned with symptoms of depression, anxiety, and thinking difficulties. These data suggest that homogeneous item-content dimensions of the Sc scale provide a means for distinguishing between psychotic and nonpsychotic patients who otherwise appear similar on overall scale Sc.

Meisner, S. Susceptibility of Rorschach distress correlates to malingering. *J Pers Assess.* 1988 Fall; 52(3): 564-71.

Abstract: This study examined whether faking depression can affect Rorschach variables associated with distress. Fifty-eight nondepressed undergraduates were randomly assigned to experimental and control groups of 29 subjects each. All subjects took the Minnesota Multiphasic Personality Inventory (MMPI) Depression Scale, Rorschach Inkblot Test, and Beck Depression Inventory (BDI) under standard administration procedures. Immediately before taking the Rorschach and BDI, experimental group subjects were: (a) instructed to fake depression, (b) provided with a clinical description of the disorder, and (c) offered a cash incentive for the most convincing test display of depression. These conditions increased scores on the BDI,  $p$  less than .0001, Morbid Special Score,  $p$  less than .05, BI,  $p$  less than .005, and reduced R,  $p$  less than .05, but affected no determinants. Power to detect a clinically significant effect of faking on the sum of gray-black determinants was .99 ( $\alpha = .05$ ). Major implications are: (a) abnormal frequencies of determinants should not be attributed to malingering, and (b) Rorschach content measures of depression are affected by impression management strategies.

Miller, TW; Martin, W., and Spiro, K. Traumatic stress disorder: diagnostic and clinical issues in former prisoners of war. *Compr Psychiatry.* 1989 Mar-Apr; 30(2): 139-48.

Abstract: Examined are a variety of clinical issues in the diagnosis and treatment of Posttraumatic Stress Disorder (PTSD) of former prisoners of war (POWs). Difficulties and complexities in understanding and diagnosing PTSD in former POWs presenting symptomatic complaints associated with this disorder are explored. Data collected on former POWs complaining of PTSD and diagnosed by DSM-III-R criteria revealed Minnesota Multiphasic Personality Inventory (MMPI) and Millon Clinical Multiaxial Inventory (MCMI) clinical profiles appropriate for clinical application. Comparative data between German-held and Japanese-held POWs experiencing PTSD and adjustment-related stressors are discussed. Import on clinical strategies with diagnosed patients suggests both behavioral approaches to treatment and future directions in research.

Molinari, E.; Morosin, A., and Riva, G. [Alexithymia and psychopathology in a clinical sample of obese subjects]. *Minerva Psichiatr.* 1995 Sep; 36(3): 133-8.

Abstract: The study examines the relationship between obesity and alexithymia, focusing on relations with the level of psychopathology. The Toronto Alexithymia Scale (TAS) was performed in 200 women (100 obese subjects and 100 normal weight individuals). In obese subjects TAS was accompanied by a series of tests including the Minnesota Multiphasic Personality Inventory (MMPI), Ipat Anxiety Scale (ASQ) and the Eating Attitude Test (EAT). The results obtained show that from a psychopathological point of view obesity cannot be considered a single phenomenon, and that it is possible to identify at least 3 groups with different psychopathological phenomenon as a whole, but it appears to be present, in association with other psychological traits, only on the subgroup (35% of the total) of subjects with borderline personalities.

Mongini, F.; Ibertis, F., and Ferla, E. Personality characteristics before and after treatment of different head pain

syndromes. *Cephalalgia*. 1994 Oct; 14(5): 368-73; Discussion 319.

Abstract: In order to examine whether, in patients with different types of headache and craniofacial pain, MMPI and STAI scores are significantly different before and after treatment, 114 patients with tension-type headache (n = 34), atypical facial pain (n = 20), temporomandibular joint dysfunction (n = 36), migraine (n = 16), cluster headache (n = 4), chronic paroxysmal hemicrania (n = 2), trigeminal neuralgia (n = 2) were examined. A pain index was calculated (0-10) which quantified pattern, duration and frequency of pain. The Italian MMPI (356 item abbreviated version) and the STAI tests were administered before and after treatment. A paired t-test was used to assess pre- and post-treatment differences, and multiple regression analysis was employed to examine whether such differences correlated with the improvement in the pain index. In the total group after treatment, there was a significant reduction of certain MMPI scores (Hs, D, Hy, Pa, Pt, Sc, Si) and of STAI 1 and 2 scores. Separate analysis confirmed this among women but not among men. No relation was found between MMPI and STAI changes and the degree of improvement as assessed through the pain index. Clinical improvement leads to normalization of MMPI profiles and STAI scores in women. The psychometric data before treatment were not predictive for treatment outcome.

Munley, PH; Bains, DS; Bloem, WD, and Busby, RM. Post traumatic stress disorder and the MMPI 2. *J Trauma Stress*. 1995 Jan; 8(1): 171-8.

Abstract: This study compared the MMPI-2 profiles of 27 veterans diagnosed with post-traumatic stress disorder with a non-PTSD comparison group of 27 veteran patients receiving inpatient treatment for other mental disorders. Three multivariate analyses of variance were conducted comparing the two groups on the 10 traditional clinical scales, the 12 supplemental scales and the 15 new content scales on the MMPI-2. The PTSD group obtained a mean profile with peak elevations on the F validity scale and on clinical Scales 2 (D) and 8 (Sc). The multivariate analysis of variance comparing the PTSD and non-PTSD groups across the 10 traditional clinical scales was not significant. The multivariate analyses of variance comparing the two groups on the 12 supplemental scales and the 15 content scales were significant. Significant univariate supplemental scale differences were found on the Keane PTSD scale (PK) and the Post-Traumatic Stress Disorder (PS) scale with the PTSD group scoring higher on PK and PS. Significant univariate content scale differences were found for the Anger (ANG) scale with the PTSD group scoring higher. A cut-off score of 28 on the PK scale correctly classified 76% of the overall sample, 67% of the PTSD group and 85% of the non-PTSD-comparison group.

Munley, PH; Bains, DS; Frazee, J., and Schwartz, LT. Inpatient PTSD treatment: a study of pretreatment measures, treatment dropout, and therapist ratings of response to treatment. *J Trauma Stress*. 1994 Apr; 7(2): 319-25.

Abstract: Pretreatment measures including demographic variables, adjustment index variables and psychological testing variables were studied in relationship to treatment dropout and therapist ratings of overall response to treatment among PTSD veterans in an inpatient PTSD program. Analysis comparing a group of fourteen veterans who dropped out of treatment early and a random sample of fourteen who successfully completed treatment showed no significant differences. Analysis comparing a group of 35 veterans who received the highest therapist ratings on response to treatment with a group of 35 veterans receiving the lowest ratings on response to treatment also showed no significant differences. Analysis of subgroups of patients who had completed the Millon Clinical Multiaxial Inventory (MCMI) and received high versus low therapist ratings showed one significant difference on the hypomania scale. Overall findings on the MMPI and MCMI appeared similar to other investigations of PTSD.

Muramatsu, Y. [Psychosomatic aspects of chronic respiratory failure managed with home oxygen therapy (HOT)]. *Nippon Kyobu Shikkan Gakkai Zasshi*. 1994 Apr; 32(4): 293-301.

Abstract: Thirty-eight patients with chronic respiratory failure, including 28 patients receiving HOT, were studied from the psychosomatic viewpoint. Assessment of psychological state was based on the following 5 psychometrical tests; Cornell Medical Index (CMI), Self Rating Questionnaire for Depression (SRQ-D), State Trait Anxiety Inventory (STAI), Minnesota Multiphasic Personality Inventory Alexithymia Scale (MMPI-Alexithymia scale) and egogram Check List (ECL). Twelve HOT patients were also interviewed individually over a three-year period. The ECL showed overadaptation of non-HOT female patients, as compared with their HOT counterparts. There was an inverse correlation between PaO<sub>2</sub> (room air) and the SRQ-D score. A significant correlation was also found between age and the SRQ-D score in both HOT and non-HOT patients. HOT patients were observed for 3 years (1-4 years after HOT introduction). Depressive state was observed in 16.6-36.4% of the patients throughout this observation period. Alexithymia was noted in 25.0% only 1 year after the initiation of HOT. However, the average scores for SRQ-D, STA-I and the MMPI-Alexithymia scale remained unchanged for 3 years. PaCO<sub>2</sub> (room air, O<sub>2</sub>, inhalation) was significantly related to the STAI-1 score up to 2 years after starting HOT. Furthermore, a significant correlation was seen between HOT duration and MMPI-Alexithymia scales in HOT patients. Blood gas analysis parameters

(delta PaO<sub>2</sub>, PaCO<sub>2</sub> and pH) correlated significantly with respiratory scores on CMI somatic profiles. These results suggest that blood gas status (PaO<sub>2</sub>, PaCO<sub>2</sub>) may have an effect on the psychological states of patients early in the course of HOT. However, social factors, such as familial or economical problems, seem to have a greater influence in later stages. Thus, more attention must be given to psychosomatic treatment in the care of HOT patients.

Nasilowska, Barud A. and Markiewicz, M. The personality and psychosomatic syndrome in patients with acquired valvular heart diseases. *Mater Med Pol.* 1991 Oct-Dec; 23(4): 251-3.

Abstract: Fifty patients (36 women and 14 men) aged 16-51 with valvular heart diseases qualified from surgical treatment were studied. For determination of personality traits the Self Knowledge Card by R. B. Cattell, The Minnesota Multiphasic Personality Inventory MMPI-WISKAD by Hathaway and McKinley and The Adjectives Test ACL by Gough and Heilbrun. Using these methods it was shown that patients with acquired valvular heart diseases had a much lower tolerance threshold for frustration and stressful situations and had a tendency for autoaggressive behaviour. Somatic symptoms in these patients cause a constant feeling of danger and anxiety and difficulties in adaptation to everyday life conditions with a tendency for self-effacement. Predominating needs were demonstrated in three sets: a) defense attitudes and strong self-control, b) needs connected with goal achievement and strivings, c) needs connected with normal relations with other people. A statistical comparison of the results obtained in patients with valvular heart diseases and in healthy controls showed very significant differences between them.

---. [Psychologic problems in patients with diabetes mellitus and myocardial infarction]. *Wiad Lek.* 1993 Mar; 46(5-6): 167-72.

Abstract: A group was studied of 20 patients with diabetes mellitus treated in the Department of Cardiology for acute myocardial infarction. The duration of diabetes mellitus in these patients was from 5 months to 6 years, and in all patients this was the first myocardial infarction. For the study of personal features of the patients with diabetes mellitus and myocardial infarction R.B. Cattell's Self-Perception Sheet, H. Gough's ACL Adjective Test, and Multi-symptomatic Diagnostic Scale MMPI-WISKAD were used. The studied showed that the group of patients with diabetes mellitus and myocardial infarction was characterized by greater intensity of depression symptoms, excessive interest in own organism and its fitness with significant manifestation of hypochondriac-hysterical features and high level of restlessness and anxiety. The results of our study revealed many common features (great similarity) in the personality of patients with diabetes mellitus and myocardial infarction and patients with only diabetes but less common features with non-diabetic patients with myocardial infarction.

Neal, LA; Busuttill, W.; Rollins, J.; Herepath, R.; Strike, P., and Turnbull, G. Convergent validity of measures of post traumatic stress disorder in a mixed military and civilian population. *J Trauma Stress.* 1994 Jul; 7(3): 447-55.

Abstract: The authors evaluated the validity of the Post-Traumatic Stress Disorder (PTSD) subscale of the Minnesota Multiphasic Personality Inventory (MMPI), the Impact of Event Scale (IES) and the Symptom Check List 90 (SCL-90) as continuous and dichotomous measures of PTSD in a mixed military and civilian group of 70 subjects in the United Kingdom. The MMPI-PTSD and the IES are designed specifically as measures of PTSD and the Global Symptom Index of the SCL-90 is a general measure of neurosis. All measures produced significant positive correlations with scores from the Clinician Administered Post-Traumatic Stress Disorder Scale (CAPS-1) and with each other. The IES was the most useful dichotomous measure. The optimum cut-off score for the IES producing the highest Positive Predictive Value and the lowest Apparent Total Misclassification Error Rate has been determined.

Noblitt, JR. Psychometric measures of trauma among psychiatric patients reporting ritual abuse. *Psychol Rep.* 1995 Dec; 77(3 Pt 1): 743-7.

Abstract: Increasing reports by psychiatric patients of ritual abuse have provoked a debate about the appropriate interpretation of such allegations. Some authors contend that these claims represents fantasy material, dissimulation, or delusions. Others maintain that patients' descriptions of ritualized trauma may constitute a newly identified psychiatric syndrome. The present investigation compared psychometric measures of trauma, the MMPI-2 PK and PS scales, in a group of patients reporting ritual abuse and another group with no such accounts of ritual abuse. Comparisons were statistically significant with mean PK and PS scores of 86.3 and 85.8, respectively, for the 34 reporting ritual abuse and 58.3 and 58.7 for the 31 not reporting ritual abuse. Further, 91% of the patients alleging ritual abuse had scores on at least one of the two scales within the clinical range, i.e., T score > or = 65. It was concluded that patients reporting histories of ritual abuse also showed significantly elevated scores on these scales and their scores were higher than those obtained for a sample of patients not reporting ritual abuse.

Overholser, JC. Differentiation between schizoid and avoidant personalities: an empirical test [see comments]. *Can J*

Psychiatry. 1989 Nov; 34(8): 785-90.

Abstract: A number of authors have questioned the rationale for subdividing the DSM-II schizoid diagnosis into three separate personality disorders in DSM-III, the schizoid, avoidant, and schizotypal. The present study was designed to explore differences between psychiatric patients with schizoid and avoidant personalities as compared to psychiatric controls with no personality disorder. Differences were examined on demographic data, self-report measures, and clinical information. A Multivariate Analysis of Variance (MANOVA) revealed a significant overall effect for groups across MMPI subscales. However, subsequent univariate Analyses of Variance (ANOVA's) revealed that almost all differences were between the two personality disorder groups as compared to the psychiatric controls. Contrary to expectations, schizoid and avoidant personalities were found to display equivalent levels of anxiety, depression, and psychotic tendencies as compared to psychiatric control patients. No meaningful distinctions were found between the avoidant and the schizoid personalities. Results are discussed in terms of problems with the assessment methods and the diagnostic criteria.

Pailhous, E.; Benoit, O.; Goldenberg, F.; Bouard, G., and Payant, C. Psychological profile and sleep organization in young subjects with poor quality of sleep. *Psychiatry Res.* 1988 Dec; 26(3): 327-36.

Abstract: The personality traits defined by the Minnesota Multiphasic Personality Inventory (MMPI) and sleep data were analyzed in 45 young subjects with poor quality of sleep. The subjects were divided into three groups: Group 1 had no T score greater than or equal to 70, Group 2 had one or more single T scores greater than or equal to 70, and Group 3 had T scores greater than or equal to 70 in one or more specific groups of scales. The first 2 nights of sleep were polygraphically recorded. Subjects in Group 1 were considered to be normal, those in Group 2 were characterized by depression and anxiety, and those in Group 3 had psychopathic personality traits and somatic disorders. Differences in sleep data were noted among groups. The severity of the sleep disorders was related to the degree of the psychological problems.

Parmer, JC. Bulimia and object relations: MMPI and Rorschach variables. *J Pers Assess.* 1991 Apr; 56(2): 266-76.

Abstract: Rorschach and Minnesota Multiphasic Personality Inventory (MMPI) responses from persons vomiting to manage body weight and fat phobia were compared to those from a matched control group to determine the levels of personality structure. These responses were also contrasted with those of representative groups from normal and personality disordered populations. Findings were that the bulimic group's test protocols differed significantly from those of the control group, displaying evidence of serious cognitive slippage and dramatic, emotional and erratic personality structures arrested at the differentiation subphase of ego development. The clinical importance of timely developmental diagnosis and interventions designed to promote object constancy was discussed in light of these findings.

Perconte, ST and Goreczny, AJ. Failure to detect fabricated posttraumatic stress disorder with the use of the MMPI in a clinical population. *Am J Psychiatry.* 1990 Aug; 147(8): 1057-60.

Abstract: The authors attempted to replicate previous studies that used the Frequency (F) scale and the posttraumatic stress disorder (PTSD) subscale of the MMPI to discriminate Vietnam veterans with PTSD from well-adjusted veterans and mental health professionals who feigned symptoms of PTSD. Profiles of veterans with PTSD were compared to those of veterans with non-PTSD psychiatric disorders and veterans with fabricated PTSD symptoms who sought treatment. Discriminant analysis of F scale and PTSD subscale scores correctly identified only 43.59% of the subjects, thus failing to support use of the MMPI in detecting fabricated symptoms of PTSD in a clinical population.

Perconte, ST and Griger, ML. Comparison of successful, unsuccessful, and relapsed Vietnam veterans treated for posttraumatic stress disorder. *J Nerv Ment Dis.* 1991 Sep; 179(9): 558-62.

Abstract: The present study investigated the differences between veterans who benefited from intensive treatment for posttraumatic stress disorder (PTSD) and those who either relapsed or showed no improvement following treatment. Data from 45 combat veterans with PTSD completing at least 6 weeks of treatment in a partial hospitalization program were utilized. Veterans who had improved following treatment and had maintained a positive adjustment 18 months following treatment were found to have had lower rates of alcohol consumption and greater program participation than those who were unimproved or relapsed. These veterans also obtained lower scores on the MMPI-PTSD subscale, the global indices of the SCL-90-R, and seven of nine individual symptom scales of the SCL-90-R. These results were consistent with other recent reports concerning the existence and characteristics of Vietnam veteran symptom overreporters in studies using the MMPI, and suggest possible treatment outcome predictors for these groups.

Persinger, MA. Neuropsychological profiles of adults who report "sudden remembering" of early childhood memories: implications for claims of sex abuse and alien visitation/abduction experiences. *Percept Mot Skills*. 1992 Aug; 75(1): 259-66.

Abstract: Six adults, who had recently experienced sudden recall of preschool memories of sex abuse or alien abduction/visitation, were given complete neuropsychological assessments. All experiences "emerged" when hypnosis was utilized within a context of sex abuse or New Age religion and were followed by reduction in anxiety. As a group, these subjects displayed significant (T greater than 70) elevations of childhood imaginings, complex partial epileptic-like signs, and suggestibility. Neuropsychological data indicated right frontotemporal anomalies and reduced access to the right parietal lobe. MMPI profiles were normal. The results support the hypothesis that enhanced imagery due to temporal lobe lability within specific contexts can facilitate the creation of memories; they are strengthened further if there is also reduction in anxiety.

Persinger, MA and Makarec, K. Temporal lobe epileptic signs and correlative behaviors displayed by normal populations. *J Gen Psychol*. 1987 Apr; 114(2): 179-95.

Abstract: With regard to epileptic signs and correlative behaviors, one hypothesis is that the experiences and nonconvulsive behaviors of patients with electrical foci within the temporal lobe are also displayed, but with less intensity, by normal people. If this is correct, then there should be quantitative relationships between the numbers of major complex partial epileptic signs (CPES) and the occurrence of other frequent clinical experiences and behaviors. An inventory to answer this question was developed. Over a 3-year period, 414 (6 groups) university students were administered an inventory that included themes of CPES as well as control and information items. Strong correlations were consistently found between CPES scores and reports of paranormal (mystical, with religious overtones) experiences and "a sense of presence." Results from three personality (CPI, MMPI, and IPAT anxiety) inventories clearly demonstrated similar profiles. In addition to being more anxious, people who displayed higher CPES scores were more suspicious, aloof, stereotyped in their behavior, ruminative (overthinking), intellectually inefficient, and overly judgmental. CPES scores were significantly ( $p$  less than .001) correlated with the schizophrenia and mania subscales of the MMPI. The results suggest that functional hyperconnectionism of cortical-limbic systems within the brain may be more prevalent in the normal population than previously suspected.

Pitchot, W.; Hansenne, M.; Moreno, AG; Von, Frenckell R., and Anseau, M. Psychopathological correlates of dopaminergic disturbances in major depression. *Neuropsychobiology*. 1990-91; 24(4): 169-72.

Abstract: In a recent report, we confirmed the role of dopamine in the pathophysiology of depression by demonstrating a blunted response of growth hormone (GH) to apomorphine, a selective dopaminergic agonist, in endogenous depressive patients. Few data are available on the possible psychopathological correlates of disturbances in the apomorphine test. In this study, we assessed the relationship between GH response to apomorphine and the Minnesota multiphasic personality inventory (MMPI) scales in a sample of 20 major depressive inpatients. The GH response (area under the curve) after apomorphine injection was positively correlated with the social introversion scale scores ( $r = 0.56$ ,  $df = 19$ ,  $p$  less than 0.01) and the anxiety scale scores ( $r = 0.45$ ,  $df = 19$ ,  $p = 0.04$ ). These results suggest dopaminergic overactivity in anxious psychopathology rather than in depressive psychopathology. The relationship between the social introversion scale score and the apomorphine test is in agreement with the dopaminergic hypothesis of schizophrenic disorders.

Piubello, W.; Aimo, GP; Superti, G.; Raggi, GC; Pistoro, S.; Max, G., and Romanini, M. [The psychological characteristics of dyspepsia. A controlled study with gastroscopic follow up]. *Minerva Gastroenterol Dietol*. 1994 Mar; 40(1): 27-30.

Abstract: It's known that some psychologic factors could be implicated in dyspepsia. Therefore, the psychologic aspects of 38 dyspeptic patients (17 males, 21 females, aged 18-65 years), who underwent digestive endoscopy, were evaluated by means of Rorschach and MMPI test. Patients with previous peptic ulcer history, with chronic ethanol or NSAID intake, operated on digestive tract and patients with behavioural problems were excluded. The results of psychological tests enhanced two main groups: anxiety patterns (17 patients--49%) and normal patterns (21 patients--55%). Endoscopic and histological findings moreover showed: "anxious" group--12 patients with chronic gastritis (HP+ 50%), 5 patients with normal endoscopy; "normal" group--16 patients with chronic gastritis (HP+ 87.5%), 5 patients with normal endoscopy. This study suggests that in about 50% of dyspeptic patients anxious pattern is present. Moreover chronic gastritis is more frequently associated to *Helicobacter pylori* in non-anxious patients.

Polozhentsev, SD; Rudnev, DA; Chizh, VA, and Maklakov, AV. [Psychological characteristics of patients with ischemic heart disease and behavioral risk factor (type A personality)]. *Kardiologiia*. 1990 Apr; 30(4): 73-5.

Abstract: Psychological features were examined in 64 coronary heart disease (CHD) patients with type A behavioral risk factor. CHD was diagnosed after all the patients had undergone selective coronary angiography. To study personality traits, traditional psychological methods were used such as MMPI, the Spilberger questionnaire, Jenkins' questionnaire scores. According to the scores of MMPI (5MF, 8 Sc, Osi, F), type A behavior subjects were demonstrated to have lower ratings than type B behavior ones. No differences in anxiety shown by people were found. The findings suggest that Type A persons are inclined to have intrapersonal contacts, socially active, emotionally responsive on the one hand, and exhibit a provoked hostility, on the other hand. This leads to the formation of an emotional conflict which may be a factor causing a long-term emotional stress and predisposing to a more frequent development of CHD.

Rahe, RH; Karson, S.; Howard, NS Jr; Rubin, RT, and Poland, RE. Psychological and physiological assessments on American hostages freed from captivity in Iran. *Psychosom Med.* 1990 Jan-Feb; 52(1): 1-16.

Abstract: Medical evaluations of 52 Americans held hostage in Iran for 444 days included psychological testing and physiological measurements. Psychological testing utilized the Minnesota Multiphasic Personality Inventory (MMPI) and the 16 Personality Factor Questionnaire (16-PF) and focused on the stress management capabilities of the group upon their arrival at Wiesbaden, West Germany. Physiological testing utilized plasma and urinary cortisol along with plasma and urinary catecholamine levels to help document former hostages' stress responses following their release from captivity. Saliva cortisol and testosterone were measured over the first three hospital days to assess the group's psychophysiological recovery. Psychological testing indicated that the former hostages, as a group, were generally well defended, appearing to have endured their ordeal well. In contrast, plasma and saliva cortisol, urinary catecholamines, and saliva testosterone were seen to be highly elevated. These physiological measures appeared to reflect three strong affects: distress, anxiety, and elation. Saliva cortisol was the only physiological measurement that demonstrated a significant correlation with psychiatrists' ratings of the released hostages' psychological disturbance. Psychiatrists' disturbance ratings appeared to be a valid psychometric estimate, as adduced from their correlations with MMPI and 16-PF major scales.

Ramos, Platon MJ and Espinar, Sierra J. Changes in psychopathological symptoms in sleep apnea patients after treatment with nasal continuous positive airway pressure. *Int J Neurosci.* 1992 Feb; 62(3-4): 173-95.

Abstract: To evaluate the psychological disturbances associated with obstructive sleep apnea (OSA) and the effect of nasal continuous positive airway pressure (NCPAP) treatment on these alterations, personality patterns and psychosocial adjustment were assessed in patients hypnopolygraphically diagnosed with OSA before and after different periods of NCPAP therapy. Prior to treatment, MMPI results for 23 patients showed significant elevations ( $p < .01$ ) on five clinical scales compared to those of 17 normal controls. Apneics' personality patterns were predominantly of a "neurotic-mixed" type, indicating an anxiety reaction with paranoid features. Depression, schizophrenia, and hypochondriasis were the highest scales. Most patients had severe psychosocial maladjustment. In the follow-up study during the NCPAP treatment, there was a progressive reduction of the psychopathological signs along with a generalized improvement in psychosocial adaptation. These changes were remarkably significant after about a year's treatment, in particular for depression ( $p < .01$ ) and total adjustment degree ( $p < .01$ ). It was concluded that severe OSA is associated with serious psychosocial alterations that improve gradually with NCPAP.

Raskin, R. and Novacek, J. An MMPI description of the narcissistic personality. *J Pers Assess.* 1989 Spring; 53(1): 66-80.

Abstract: This study developed a Minnesota Multiphasic Personality Inventory (MMPI) description of the narcissistic personality in a nonclinical population. The Narcissistic Personality Inventory (NPI) and the MMPI were administered to two samples of 57 and 173 subjects. A correlational analysis produced a cross-validated positive relationship between narcissism and MMPI mania (Ma) and cross-validated negative relationships between narcissism and MMPI depression (D), psychasthenia (Pt), social introversion (Si), anxiety (A), repression (R), and ego control (Ec). A correlational analysis of the 7-factor components of the NPI (Authority, Exhibitionism, Superiority, Vanity, Exploitativeness, Entitlement, and Self-Sufficiency) and the MMPI validity, clinical, commonly scored, and content scales suggests that the seven NPI components reflect different levels of psychological maladjustment. Narcissistic Entitlement and Exploitativeness reflect the most maladjustment, whereas narcissistic Authority reflects the least maladjustment. In addition, a profile analysis of the high NPI scorers suggest that a 98/89 MMPI profile with an elevated F score is most representative of the narcissistic personality in nonclinical samples.

Rocco, A.; Mori, F.; Baldelli, R.; Aversa, A.; Munizzi, MR; Nardone, MR; Fabbrini, A., and Falaschi, P. Effect of chronic bromocriptine treatment on psychological profile of patients with PRL secreting pituitary adenomas. *Psychoneuroendocrinology.* 1993; 18(1): 57-66.

Abstract: Hyperprolactinaemic patients are characterized by an altered psychological profile, positively modified by the administration of dopaminergic drugs. This would suggest that the same neurochemical disorder is responsible for both hyperprolactinaemia and abnormal psychological profile in these patients. To identify depression, anxiety, and aggressiveness, nine women affected by prolactin (PRL)-secreting pituitary adenomas were studied before and after 6 and 12 mo of bromocriptine therapy, by the use of different psychometric tests (Mean Minnesota Multiphasic Personality Inventory [MMPI], State-Trait Anxiety Inventory [STAI], and State and Trait Aggressiveness Scale [STAS]). As a group, the patients did not show any depressive, anxious, or aggressive tendencies. Furthermore, no significant modifications were observed during dopaminergic treatment. Patients bearing PRL adenomas seem to be characterized by a dopaminergic background different from that found in functional hyperprolactinaemia. This hypothesis could explain the different psychological configuration and behavior in response to the administration of dopaminergic compounds.

Romoli, M. and Giommi, A. Ear acupuncture in psychosomatic medicine: the importance of the Sanjiao (triple heater) area. *Acupunct Electrother Res.* 1993 Jul-Dec; 18(3-4): 185-94.

Abstract: A group of 50 patients with possible psychosomatic disorders of the cardiovascular, respiratory and digestive systems were treated with Ear acupuncture. Together with a control group of 20 symptomless volunteers they received 4 weekly treatments and a final check of the therapy after 6 weeks. All subjects were examined with the MMPI test, Paykel's scale for stressful life events, and with the SRT scale (Symptom Rating Test) for measuring at each treatment the variations of anxiety, depression and somatisation levels. The results show a similar trend of response to Acupuncture in both groups, which was significantly more pronounced in the stress group for the reduction of the SRT score and the number of Ear acupuncture points. The outer ear was sensitized by stress response in certain recurrent areas, especially of the cavum conchae. The area with the highest relative density of Ear acupoints was the Sanjiao or Triple Heater area.

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Rotenberg, VS and Schattenstein, AA. Neurotic and psychosomatic disorders. Interdependence in terms of the search activity concept. *Pavlov J Biol Sci.* 1990 Apr-Jun; 25(2): 43-7.

Abstract: There are no correlations between MMPI Hysteria (Hs) and Depression (D) scales in psychosomatic patients in contrast to other patients with somatic disturbances, neurotic disturbances, and in healthy subjects. The roles of depression and hypochondria in the dynamics of psychosomatic disturbances are discussed according to the search activity concept. It is suggested that hypochondriacal complaints are prognostically favorable in comparison with anxiety-depression complaints.

Rozhanets, RV; Petrova, MM, and Kononova, LI. [Prognostic value of psychological characteristics in the evolution of borderline arterial hypertension]. *Kardiologija.* 1988 Dec; 28(12): 13-6.

Abstract: Psychodiagnostic screening, using the MMPI test, was carried out in 130 individuals with marginal arterial hypertension (MAH) and 87 normotensive subjects. Individuals with MAH showed anxiety, inner tension, rigidity, a tendency to absorption in disease, and fixation on health. Lowered SMAL fourth-scale profile in MAH individuals may serve as a psychological indicator of a risk of essential hypertension.

Rugh, JD; Woods, BJ, and Dahlstrom, L. Temporomandibular disorders: assessment of psychological factors. *Adv Dent Res.* 1993 Aug; 7(2): 127-36.

Abstract: Factors such as psychological stress, anxiety, depression, oral habits, and chronic pain behaviors have been found in subgroups of Temporomandibular Disorders (TMD) patients. This paper reviews the current status of diagnostic methods and instruments designed to identify various psychological factors. The authors offer the following general conclusions: Although the DSM-III-R has significant limitations, it is currently the most common

gold standard with which other psychological instruments are compared. There are several specific assessment instruments, such as the Beck Depression Inventory and the Zung Self-Rating Depression Scale, which have been found to have acceptable sensitivity and specificity scores. In addition, certain simple screening questions may be cost-effective for the identification of psychological factors. Because of studies indicating that the dentists' recognition of psychological factors is inaccurate, a brief screening questionnaire may be useful in TMD patients. The literature does not support the routine use of the MMPI. A major conclusion of this review is that there are several psychological instruments available which have demonstrated reasonable validity through a blind comparison with a gold standard. There is need for further development and testing of brief screening instruments using clinical decision methods.

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Sanz, Carrillo C.; Garcia, Campayo JJ, and Sanchez, Blanque A. [Personality in patients with panic disorder]. *Actas Luso Esp Neurol Psiquiatr Cienc Afines.* 1993 Nov-Dec; 21(6): 243-9.

Abstract: Forty-five patients diagnosed ad Panic Disorder and forty-five control patients are studied. Personality traits are assessed by Cattel's 16 PF. Test and several subscales derived from MMPI (dependence, repression, hypersensibility, etc.). Anxiety is measured by Zung's Anxiety Scale. Panic disorder patients show higher "dependence", "inferiority", "hypersensibility", low "ego strength", "parmia", "shrewdness", "self-sentiment integration" and high "ergic tension". In addition, male patients show significative differences in "affectothymia", "self-sufficiency", "self-sentiment integration" and "invia".

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Schnurr, PP; Friedman, MJ, and Rosenberg, SD. Premilitary MMPI scores as predictors of combat related PTSD symptoms [see comments]. *Am J Psychiatry.* 1993 Mar; 150(3): 479-83.

Abstract: OBJECTIVE: The authors used data collected before military service to assess predictors of combat-related lifetime symptoms of posttraumatic stress disorder (PTSD). METHOD: The subjects were 131 male Vietnam and Vietnam-era veterans who had taken the MMPI in college and who were interviewed as adults with the Structured Clinical Interview for DSM-III-R. Scores on the basic MMPI scales were used to predict combat exposure, lifetime history of any PTSD symptoms given exposure, and lifetime PTSD classification (symptoms only, subthreshold PTSD, or full PTSD). RESULTS: Group means on the MMPI scales were within the normal range. No scale predicted combat exposure. Hypochondriasis, psychopathic deviate, masculinity-femininity, and paranoia scales predicted PTSD symptoms. Depression, hypomania, and social introversion predicted diagnostic classification among subjects with PTSD symptoms. The effects persisted when amount of combat exposure was controlled for. CONCLUSIONS: Pre-military personality can affect vulnerability to lifetime PTSD symptoms in men exposed to combat.

Schnurr, PP; Rosenberg, SD, and Friedman, MJ. Change in MMPI scores from college to adulthood as a function of military service. *J Abnorm Psychol.* 1993 May; 102(2): 288-96.

Abstract: We examined changes in Minnesota Multiphasic Personality Inventory scores from adolescence to adulthood in a longitudinal study of 540 men who attended college during the Vietnam War. Using change scores that were adjusted for initial values, we compared civilians to veterans who were grouped according to combat exposure: none, peripheral, or direct. In cross-sectional analyses, the groups differed only as adults. Groups were similar in relative stability but differed by multivariate analysis in absolute change on the clinical scales. Only veterans with peripheral exposure differed from civilians in multivariate contrasts, even after controlling for premilitary variables. Effect sizes were small. Results suggest that combat exposure does not produce uniformly negative outcomes and may have positive effects in select populations.

Schotte, C.; De, Doncker D.; Maes, M.; Cluydts, R., and Cosyns, P. Low MMPI diagnostic performance for the DSM III R obsessive compulsive personality disorder. *Psychol Rep.* 1991 Dec; 69(3 Pt 1): 795-800.

Abstract: This study investigated the diagnostic performance of the MMPI validity and clinical scales, and especially of Scale 7 (Pt), for the DSM-III--R obsessive-compulsive personality disorder by comparing the MMPI variables for 24 obsessive-compulsive with those for 58 nonobsessive-compulsive inpatients. Both groups were diagnosed by semistructured interview (SCID-II). The obsessive-compulsive group obtained for the mean MMPI profile a 2-(6-1) (D-Pa-Hs) code, with a tendency for a lowered Scale 4 (Pd) score, compared to the nonobsessive-compulsive group. Neither the ROC analysis of the individual MMPI scales, including Scale 7 (Pt), nor the analyses of frequency of two-point codes and elevated (T greater than 69) scales showed any clear indications of good diagnostic performance for the DSM-III--R obsessive-compulsive personality disorder.

Schuckit, MA; Klein, J.; Twitchell, G., and Smith, T. Personality test scores as predictors of alcoholism almost a decade later. *Am J Psychiatry.* 1994 Jul; 151(7): 1038-42.

Abstract: OBJECTIVE: Comparisons of alcoholic and control subjects have revealed potential differences on a variety of personality tests. However, these results are difficult to interpret because subgroups of alcoholic subjects with antisocial personality disorder were often included in the overall analyses, and because testing was usually carried out while alcoholic subjects were in withdrawal. This article evaluates whether individuals' personality test scores at approximately age 20 predict their risk of subsequent development of alcohol abuse or dependence by about age 30. METHOD: As part of a larger prospective study of sons of alcoholic and control subjects, subsets of up to 78 subjects (39 matched pairs) out of a sample of 223 men took various personality tests that included the Eysenck Personality Inventory, subtests of the MMPI, and evaluations of locus of control and anxiety. An average of more than 9 years later, the incidence of alcohol abuse or dependence in these 223 subjects was determined by structured interviews. RESULTS: The 55 men who subsequently went on to develop alcohol abuse or dependence did not differ on any of the personality tests from the 168 men who did not develop alcoholism. CONCLUSIONS: These data are consistent with prospective studies indicating that except for antisocial personality disorder, it is difficult to identify a reliable personality profile associated with an individual's risk of alcoholism.

Schwartz, SM; Gramling, SE, and Mancini, T. The influence of life stress, personality, and learning history on illness behavior. *J Behav Ther Exp Psychiatry.* 1994 Jun; 25(2): 135-42.

Abstract: Previous research has suggested that prior learning experiences and current reinforcement contingencies account for a substantial portion of the variance in illness behaviors. The present study examined the role of other variables (e.g., stimulus and organismic variables). Two hundred and sixty four college students completed questionnaires that included the Life Events Survey, Hassles Scale, Hypochondriasis Scale (MMPI), Illness Attitude Scale, and a Medical Problems Survey. It emerged that social learning variables accounted for significant portions of variance in symptom reporting behavior even after other demographic, current stressor, and personality variables were accounted for. The advantages of using behavioral assessment models for conceptualizing influential variables is highlighted and directions for future research discussed.

Shea, SJ. Personality characteristics of self mutilating male prisoners. *J Clin Psychol.* 1993 Jul; 49(4): 576-85.

Abstract: Self-mutilating behavior (SMB) in prisons has long been recognized as a problem. MMPI data were obtained from 30 mutilating and 30 non-mutilating male inmates. Analyses of MMPI scores revealed significant differences on nine of the clinical and validity scales. Mutilators also had more frequent elevations over 70. Interpretation of scale and subscale configurations indicates that mutilators have more somatic complaints, subjective distress, alienation, immature defenses, and acting out tendencies than controls. This is consistent with descriptions of SMB in the literature. SMB is conceptualized as a form of aggression in a population of impulsive and alienated individuals in a high-stress environment. The frustration-aggression model is proposed as a model for

understanding and further investigating this phenomenon.

Sherwood, RJ; Funari, DJ, and Piekarski, AM. Adapted character styles of Vietnam veterans with Posttraumatic Stress Disorder. *Psychol Rep.* 1990 Apr; 66(2): 623-31.

Abstract: A total of 189 male Vietnam veterans who were admitted to a specialized inpatient treatment program were evaluated using the Millon Clinical Multiphasic Personality Inventory to assess character styles. The veterans were assessed for Posttraumatic Stress Disorder by using a subscale of the Minnesota Multiphasic Personality Inventory (MMPI) and 72% of the patients were classified as having Posttraumatic Stress Disorder. The character styles of passive-aggressive, schizoid, avoidant, and borderline were significantly associated with these patients. The most common 2-point profile was passive-aggressive and avoidant (8-2 or 2-8) and was significantly related to the diagnosis. While drug and alcohol abuse were common problem areas for the entire sample, the profile of patients with Posttraumatic Stress was different from those of substance abusers. These results indicate that treating Vietnam veterans with this disorder requires adopting strategies which include a character style focus as well as a symptom focus.

Shirley, MC and Windle, M. Alcoholic subtypes: psychosocial functioning in Vietnam era men. *J Subst Abuse.* 1994; 6(3): 279-93.

Abstract: Data from the Vietnam Experience Study (Centers for Disease Control [CDC], 1988a) were used to investigate differences in sociodemographic characteristics, psychological functioning, and social support among five groups: (a) controls; (b) alcohol use disorder only; (c) alcohol use disorder and major depression; (d) alcohol use disorder and generalized anxiety, and (e) alcohol use disorder and antisocial personality (ASP). Consistent with prior findings, alcoholics with co-occurring disorders were more pervasively dysfunctional across the domains measured than the controls, and in some instances, than the alcohol use disorder only group. Differences among alcohol-comorbid groups also were found. The alcohol-depression group had the highest number of elevated MMPI scores, the highest levels of negative affect, and along with the alcohol-ASP group, the lowest levels of perceived social support. The alcohol-ASP group had the highest school dropout rate and, along with the alcohol-depression group, the earliest onset of problem drinking. Results were discussed regarding the importance of identifying distinctive psychosocial variables associated with alcoholic subtypes that may enhance perspectives on etiology, prevention, and treatment.

Shulman, E. Predicting postcombat PTSD by using premilitary MMPI scores [letter; comment]. *Am J Psychiatry.* 1994 Jan; 151(1): 156-7.

Silberman, EK; Sussman, N.; Skillings, G., and Callanan, M. Aura phenomena and psychopathology: a pilot investigation. *Epilepsia.* 1994 Jul-Aug; 35(4): 778-84.

Abstract: We investigated a possible relation between aura phenomena and psychopathology in patients with seizure disorders. Twenty-one patients with a variety of seizure types (90% with generalized seizures, 72% with complex partial seizures, CPS) were studied. Aura phenomena were evaluated with the Silberman-Post Psychosensory Phenomena Scale; psychopathology was assessed with the Schedule for Affective Disorders and Schizophrenia-Lifetime Version (SADS-L), the Minnesota Multiple Personality Inventory (MMPI), and the Washington Psychosocial Seizure Inventory (WPSI). Psychosensory symptoms occurring in the absence of frank seizures, but not those occurring with seizures, were related to increased psychopathology (primarily mood and anxiety related) and greater time in psychiatric treatment. Psychosensory symptoms may reflect ongoing neurophysiologic dysfunction related to epilepsy and may therefore be a useful subject for further study.

Sinnett, ER. Clinical note on MMPI Posttraumatic Stress Disorder Scale (PK). *Psychol Rep.* 1993 Dec; 73(3 Pt 1): 893-4.

Abstract: An MMPI scale for the detection of Posttraumatic Stress Disorder has been altered in MMPI-2. The entire scale, not readily retrievable, is presented for the MMPI group form.

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Abstract: An MMPI scale for the detection of Posttraumatic Stress Disorder has been altered in MMPI-2. The entire scale, not readily retrievable, is presented for the MMPI group form.

---. Note on the PTSD S scale of the MMPI. *Psychol Rep.* 1994 Jun; 74(3 Pt 1): 1041-2.

Abstract: Although PTSD-S was developed in 1987, it was evolved using the MMPI-2. The 53-item subset for the

MMPI is presented in tabular form.

Sinnett, ER; Holen, MC, and Albott, WL. MMPI scores of female victims. *Psychol Rep.* 1995 Feb; 76(1): 139-44.  
Abstract: Samples of MMPIs of women who were victims of abuse or manifested a Posttraumatic Stress Disorder were drawn from two private practice settings, one urban and one in a small town. Each PTSD sample included 21 persons. For comparison, two contrast samples of 15 persons each were drawn from the same populations. A cut-off point of T = 65 for PK yielded a 69% hit rate for classifying PTSD and contrast subjects. Since scores on PS and PK were so highly correlated, no independent analyses were warranted. Although the PTSD group yielded a more elevated mean profile, there were no characteristic 2-point codes. Therefore, PK is more useful in identifying Posttraumatic Stress Disorder than either profile elevation or configuration.

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Slawinska, JB. [The risk of alcohol abuse among college students]. *Psychiatr Pol.* 1989 Mar-Apr; 23(2): 111-6.  
Abstract: Using MMPI and A. Ruth Engs, questionnaire 493 female and male college students were evaluated. It was found that the alcohol abuse was accompanied by factors like: anxiety, impulsiveness, weak self-control, and low self-esteem. The high negative variability exists between all scales of risk, the attitude towards oneself, and educational achievements.

Sloan, P.; Arsenaull, L.; Hilsenroth, M.; Harvill, L., and Handler, L. Rorschach measures of posttraumatic stress in Persian Gulf War veterans. *J Pers Assess.* 1995 Jun; 64(3): 397-414.

Abstract: The effectiveness of the Rorschach in detecting acute posttraumatic stress (PTS) in Persian Gulf War veterans was investigated. Subjects were 30 U.S. Marine Reservists who reported experiencing symptoms of PTS after 3 months of active duty in Operation Desert Storm. Subjects were administered the Rorschach and MMPI-2 soon after their return from the Persian Gulf War. Results showed acute distress, a vulnerable capacity for coping and control, and a tendency to be overwhelmed by internal and external stimulation. Selected Rorschach variables were significantly related in a conceptually valid manner to MMPI-2 scales associated with defensiveness, coping ability, and PTS. These findings are discussed in relation to the assessment, understanding, and treatment of PTS symptomatology and posttraumatic stress disorder.

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Sobesky, WE; Pennington, BF; Porter, D.; Hull, CE, and Hagerman, RJ. Emotional and neurocognitive deficits in fragile X. *Am J Med Genet.* 1994 Jul 15; 51(4): 378-85.

Abstract: We have studied the neurocognitive deficit in premutation and full mutation women as compared to control women and to explore the relationship between those deficits and the incidence of emotional problems. Four groups of women were examined: two fragile X (fra(X)) negative control groups, one of which grew up in fra(X) families and one not; and two DNA positive groups, one with a premutation (CGG repeats < 200) and one with an expanded mutation (CGG repeats > 200). All women were assessed using the MMPI-2, the SADS-L, and a battery of neuropsychological tests. Full mutation women had lower scores on composite measures of executive function and nonverbal function. There was no difference between the groups in terms of the lifetime incidence of depressive

and anxiety disorders on the SADS-L. Full mutation women displayed Lie scales higher than the other groups on the MMPI-2. Neurocognitive measures were not related to SADS-L diagnoses but were related to the Lie scale on the MMPI-2. Finally, number of CGG repeats was related to the neuropsychological variables and the Lie scale.

Somer, E. and Klein, E. MMPI profiles of patients with panic disorder and generalized anxiety disorder: relationship to diagnosis and time since onset. *Isr J Psychiatry Relat Sci.* 1992; 29(2): 120-7.

Abstract: Ten patients with generalized anxiety disorder (GAD) and 10 patients with panic disorder (PD) were given the Minnesota Multiphasic Personality Inventory (MMPI). The 2 groups were not found to be statistically different on any of the sub-scales. Elevated anxiety and depression scores were noted in both groups. Time since onset (TSO) of symptoms was found to be inversely correlated with MMPI scores so that patients with long duration of illness had better scores than those with a short duration of symptoms. These findings are discussed in light of possible factors affecting improvement in chronic anxiety disorders.

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Stawar, TL and Stawar, DE. Kinetic Family Drawings and MMPI diagnostic indicators in adolescent psychiatric inpatients. *Psychol Rep.* 1989 Aug; 65(1): 142-6.

Abstract: Correlations among Kinetic Family Drawings and MMPI indicators of depressive, anxiety, behavioral, and thought disorders and diagnostic category were estimated for a group of 52 adolescent psychiatric inpatients. No statistically significant values were found between test indicators and corresponding MMPI scales or diagnoses, although MMPI D and Sc scales were significantly related to diagnosis. Results do not support the concurrent or construct validity of the drawings.

Stepanchenko, AV; Puzin, MN, and Nekrasova, EM. [Personality characteristics of patients with prosopalgias]. *Zh Nevropatol Psikhiatr Im S S Korsakova.* 1992; 92(1): 118-21.

Abstract: The MMPI test, Hornblow and Kidson's visual-analog anxiety scale and two types of the painful "questionnaires" suggested by the authors were used to examine the status of emotional personality sphere in 61 patients with prosopalgias due to typical trigeminal neuralgia (n = 39), dental plexalgia (n = 13) and pulpitis (n = 9). It has been revealed that patients with typical trigeminal neuralgia demonstrate the predominance of the depressive syndrome, whereas dental plexalgia is mostly characterized by anxiety. Analysis of the semantic tests is very instrumental in helping the physician to deepen the idea of the structure of subjective sensations in facial pain. Meanwhile the indicators of the "daily pain scale" promote administration of the drugs from the standpoint of chronotherapy.

Sullivan, M.; Toshima, M.; Lynn, P., and Roy, Byrne P. Phenobarbital versus clonazepam for sedative hypnotic taper in chronic pain patients. A pilot study. *Ann Clin Psychiatry.* 1993 Jun; 5(2): 123-8.

Abstract: A randomized, double-blind controlled trial is reported comparing phenobarbital and clonazepam for the purpose of sedative-hypnotic taper in inpatients with chronic, nonmalignant pain. After receiving the Minnesota Multiphasic Personality Inventory (MMPI) and a standardized psychiatric diagnostic interview, patients' baseline sedative-hypnotic use was assessed over 48 hours. Baseline use was converted into phenobarbital or clonazepam equivalents and administered in four doses daily using a blinded liquid pain cocktail. Baseline dose was maintained for two days and then tapered by 10% per day. Over the first week of taper, differences in mean and maximum Beck Anxiety and Benzodiazepine Withdrawal scores were not significant. However, when scales 1, 3, or 8 of the MMPI were taken as covariates, differences on the Withdrawal Scale only increased to a trend level for mean scores and to a significant level for maximum scores. These findings support the superiority of benzodiazepines over barbiturates for sedative-hypnotic taper for symptoms of withdrawal but not of recurrent or rebound anxiety.

Suslova, EA and Aleksandrova, VYu. Psychological correlates of elevated arterial pressure and smoking in adolescents. *Cor Vasa.* 1988; 30(4): 257-62.

Abstract: Psychological characteristics of adolescents with risk factors of cardiovascular disease (elevated arterial

pressure - EAP - and smoking) were examined in Moscow secondary school pupils aged 12-14 years, using an abridged variant of the psychodiagnostic MMPI questionnaire. The following characteristics were found to differentiate these youngsters from a comparable control group of youngsters without the mentioned risk factors: increased anxiety, insufficient self-confidence, deficient understanding of the motives of their own behaviour, and a tendency to deny their own psychological problems. These characteristics are most pronounced in youngsters with neurocirculatory asthenia of hypertensive type. There were also found specific psychological characteristics differentiating youngsters with EAP from smokers without EAP. The authors point to the possibility of working out differentiated methods of psychological intervention in EAP and smoking in adolescents.

Sutker, PB and Allain, AN Jr. MMPI profiles of veterans of WWII and Korea: comparisons of former POWs and combat survivors. *Psychol Rep.* 1991 Feb; 68(1): 279-84.

Abstract: MMPI profile patterns were compared between combat veteran groups of 168 POW survivors and 67 servicemen who were not war captives in WWII and the Korean Conflict. Results confirm previous reports that the scales, Hypochondriasis (Hs), Depression (D), and Hysteria (Hy), are characteristically elevated among former POWs. Findings also point to the contribution of scales, Psychasthenia (Pt), Paranoia (Pa), and Ego Strength (Es), in differentiating groups, suggesting that negative ruminations, heightened anxiety, interpersonal anger and suspiciousness, and low self-esteem contribute significantly to group differentiation.

Svanum, S. and Ehrmann, LC. Screening for maladjustment in college students: an application of receiver operating characteristic curve to MMPI scales. *J Pers Assess.* 1993 Apr; 60(2): 397-410.

Abstract: The ability of two scales derived from the Minnesota Multiphasic Personality Inventory (MMPI) to identify emotional maladjustment in a college setting was examined. The scales were the College Maladjustment scale (Mt) developed by Kleinmuntz (1961) and the Health Opinion Survey based Emotional Disorder scale (Ed). Emotional maladjustment was defined by criteria established in the Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev. [DSM-III-R]; American Psychiatric Association, 1987) and assessed through a computerized Diagnostic Interview Schedule. Subjects were 94 female and 62 male students, 51 of whom (33%) met criteria for at least one DSM-III-R disorder. Substance use disorders were most frequent (13.5%), followed by anxiety disorders (11.5%) and depressive disorders (7.1%). Both Mt and Ed had no relationship to substance use disorders but were moderately related to nonsubstance use maladjustment ( $r$  approximately .47); receiver operating characteristic (ROC) analysis was employed, and Mt and Ed proved to be a fair-to-good indicator of nonsubstance use maladjustment. Types of decision errors are discussed, and tables provide information concerning predictive accuracy across the entire range of scores.

Svanum, S. and McAdoo, WG. Predicting rapid relapse following treatment for chemical dependence: a matched subjects design. *J Consult Clin Psychol.* 1989 Apr; 57(2): 222-6.

Abstract: Explored the prognostic significance of treatment and posttreatment variables on rapid relapse following residential treatment for chemical dependence. 54 persons were identified as 3-month treatment failures by the criteria of 1-3 months of alcohol/drug use in combination with alcohol/drug-related consequences and poor life adjustment. To limit heterogeneity, these persons were matched on MMPI scores with persons who were 3-month outcome successes. Additionally, these MMPI patterns were classified as near normal or indicative of psychiatric symptoms. Multivariate statistics revealed a high level of outcome predictability; continued emotional turmoil (depression, anxiety, and sleep problems) posttreatment was strongly related to failure among the psychiatric MMPI group. Failure to engage in a continuing posttreatment aftercare plan was associated with failure among persons in the near-normal MMPI group. Research approaches that attempt to limit heterogeneity among alcoholics appear to have promise in uncovering powerful prognostic indicators.

Swanson, SC; Tmepler, DI; Thomas, Dobson S.; Cannon, WG; Streiner, DL; Reynolds, RM, and Miller, HR. Development of a three scale MMPI: the MMPI TRI. *J Clin Psychol.* 1995 May; 51(3): 361-74.

Abstract: A 60-item short form of the MMPI with very high content validity and items that appear on both the MMPI and MMPI-2 was developed and named the MMPI-TRI. It contains three 20-item scales--the Subjective Distress, Acting-Out, and Psychosis scales. These three scales have excellent internal consistency and sufficient independence from each other. An anxiety and depression group of patients, prison inmate group, and a schizophrenic and other psychotic group had the highest mean scores on Subjective Distress, Acting-Out, and Psychosis, respectively. Correlations with the 13 regular scales of the MMPI and MMPI-2, their content and supplementary scales, and four other psychometric instruments provided very strong evidence for validity. Norms are provided.

Talbert, FS; Albrecht, NN; Albrecht, JW; Boudewyns, PA; Hyer, LA; Touze, JH, and LemmoN CR. MMPI profiles in PTSD as a function of comorbidity. *J Clin Psychol.* 1994 Jul; 50(4): 529-37.

Abstract: A sample of 135 Vietnam veteran inpatients with combat-related PTSD was sorted into three groups, depending upon the presence of concurrent psychiatric disorders: Depression (n = 68), Psychosis (n = 31), and Other (n = 36). Pairwise comparisons were made on the MMPI with respect to the validity indicators, clinical scales, four relevant Harris-Lingoes subscales, the Psychoticism content scale, and the MMPI-PTSD subscale. Results indicate variations in scale elevations as a function of comorbid diagnosis. Various items and scales appear to differentiate the Psychosis group due to greater psychopathology. In general, the results spotlight the heterogeneous aspects that comorbidity brings to PTSD assessment.

Tamura, T. and Furnham, A. Comparison of adaptation to the home culture of Japanese children and adolescents returned from overseas sojourn. *Int J Soc Psychiatry.* 1993 Spring; 39(1): 10-21.

Abstract: A questionnaire based on the MMPI was administered to Japanese children aged between 6 and 18 years who had returned from an overseas sojourn of more than one year's duration (N = 1941) and a matched control group who had no overseas experiences (N = 1354). Overall females had more difficulty with friends, and scored higher on both psychological and physical symptoms. The older children had more complaints about life in Japan, difficulty with friends and physical and psychological problems. The differences between the returnee and control group were less in the age range between 7 and 9, but the overseas experience seemed to have positive effects between the ages of 10 to 15. The longer the children stayed overseas, the more they had complaints about life in Japan and difficulty with friends, and less negative attitudes towards overseas life. Children who had multiple overseas experiences had more problems such as anxiety, depression and mental complaints. Children's developmental stages and the amount of exposure to the foreign culture are therefore important determinants of their readjustment. The expectations of parents and the home culture to the returnee children, gender, and emphasis on academic achievement, must also be taken into account.

---. Re adjustment of Japanese returnee children from an overseas sojourn. *Soc Sci Med.* 1993 May; 36(9): 1181-6.

Abstract: A questionnaire survey which was devised from the MMPI which was administered to Japanese children aged between 6 and 18 who had returned from an overseas sojourn for the duration of no less than one year (n = 1941) and matched control groups from the same schools who had no overseas experiences (n = 1354). Returnee children showed more dissatisfaction with their lives in Japan, but there was no indication that returnee children had more adjustment difficulties than their counterparts. In fact, they were less worried about their academic achievement and interpersonal relationships. Positive effects of the transcultural relocation were discussed as well as the adjustment.

Taylor, GJ; Parker, JD; Bagby, RM, and Acklin, MW. Alexithymia and somatic complaints in psychiatric out patients. *J Psychosom Res.* 1992 Jul; 36(5): 417-24.

Abstract: This study investigated the prevalence of alexithymia and its relationship with somatic complaints in a sample of 118 general psychiatric out-patients. Of the sample 39.8% scored in the alexithymic range of the Toronto Alexithymia Scale. Compared with the non-alexithymic patients, the alexithymic patients scored significantly higher on several Minnesota Multiphasic Personality Inventory (MMPI) scales that collectively measure a diverse and extensive range of somatic symptoms and bodily concerns. In addition, the alexithymic patients had significantly higher levels of anxiety, depression, and general psychological turmoil. Although the alexithymic and non-alexithymic patients did not differ on the MMPI Repression and overall Hysteria Scales, which reflect the defenses of denial and repression, the alexithymic patients had significantly less ego strength and were significantly more dependent and more likely to engage in impulsive and acting out behaviours. The overall pattern of results is consistent with the view that alexithymic individuals are prone to both 'functional' somatic symptoms and symptoms of emotional turmoil because they are not well equipped psychologically.

Tiul'Pin, IuG. [Complex analysis of the data of clinico psychological examination of patients with alcoholism for predicting early recurrences]. *Zh Nevropatol Psikhiatr Im S S Korsakova.* 1990; 90(2): 62-6.

Abstract: To have a more comprehensive depiction of 95 patients with stage II alcoholism, the primary result according to the MMPI procedure was transformed to a comparatively seldom used indicator of difference between the individual mean and indicators from the scales in T marks. Analysis of that indicator made it possible to distinguish values specific for an early relapse and long remission according to each of the scales. A significant difference in distributions according to the assessment scales and scales 1, 2, 3, 4, 7 was demonstrated. The hypothesis of the nonlinearity of the existing relations was proved. Analysis of the patients' distribution within the space of 5 most significant factors has shown the key importance of the level of anxiety and personal anxiety in the

relapse occurrence. A reliable system of predicting early relapses is suggested.

Trief, PM; Elliott, DJ; Stein, N., and Frederickson, BE. Functional vs. organic pain: a meaningful distinction? *J Clin Psychol.* 1987 Mar; 43(2): 219-26.

Abstract: This study examined the statistical and clinical validity of the distinction frequently made between "functional" pain and "real" pain. Earlier work has relied on the MMPI exclusively and results have been inconclusive, yet the distinction continues to be made and treatment is recommended on the basis of the label. Sixty-seven chronic back pain patients were administered questionnaires that assessed quantity and quality of depression, dimensions of illness behavior, and psychogenic attitudes. Scores of chronic pain patients were compared to normal subjects, and results indicate that the pain subjects experienced high levels of depression, anxiety, and social alienation. However, organic pain subjects did not differ from subjects with no organic findings. The authors suggest that the distinction between organic and functional pain be discarded in favor of an approach that assesses current emotional stressors and available coping mechanisms.

Trivedi, S. and Raghavan, R. Multi phasic Questionnaire profile of alcoholics and related factors. *Drug Alcohol Depend.* 1991 Dec; 29(1): 1-4.

Abstract: Thirty alcoholics treated as inpatients were administered the Multi-phasic Questionnaire (MPQ), a short version of MMPI, to study their personality pattern. Results showed highest loading on depression (85%) and lowest on anxiety (3%). A significant correlation was found between scales of psychopathic deviance and hysteria. Age of problem drinking under 35 years and poor PQ level were found to be associated with depression and psychopathic deviance. Clinical diagnosis was corroborated by the findings of the MPQ. The findings of the present study may be utilised to screen adolescents from alcoholic families for preventive measures.

Tyson, GM and Range, LM. Gestalt dialogues as a treatment for mild depression: time works just as well. *J Clin Psychol.* 1987 Mar; 43(2): 227-31.

Abstract: In a treatment analogue design, 44 moderately depressed volunteer subjects were divided randomly into four groups: attention-placebo; Gestalt empty chair dialogues designed to be personally relevant and high in affect; dialogues designed to be personally irrelevant and neutral in affect; and groups in which strong affect was encouraged, but no dialogues enacted. Groups met 1 hour per week for 4 weeks. Each group was pretested, post-tested, and follow-up tested with an abbreviated MMPI, the Depression Adjective Check List, and experimenter questionnaires. A series of 4 X 3 ANOVAs indicated significant main effects for time across all dependent variables. Also, anxiety and social introversion decreased over time in all groups. No other main or interactional effects were significant. These results suggest that mild depression, as well as anxiety and social introversion, dissipated over time and remained lower regardless of whether the subject had any treatment.

Usenko, GA. [Psychosomatic status and the quality of the piloting in flyers during geomagnetic disturbances]. *Aviakosm Ekolog Med.* 1992 Jul-Aug; 26(4): 23-7.

Abstract: After using the psychological tests, namely Minnesota Multiphasic Personality Inventory (MMPI) and Luchaire 8-color test, a large group of pilots was divided into the individuals with high and low levels of anxiety. The highly anxious persons as opposed to those with a low level of anxiety are characterized by a more anxious level of operating during the quiet days free from magnetic disturbances. On heliogeomagnetic exposures, the pilots with a high level of anxiety unlike those with a low anxiety level operate at a new, even more intensive homeostatic level which is accompanied by a decreased functional activity of the central nervous system. The latter leads to a sharp decline in flying skills. Since there have been no significant changes in the physiological status and flying skills of the pilots with a low anxiety level during magnetic disturbances, it should be considered that the high level of anxiety is the risk of heliometeorability and flight safety. The ways to correct the high level of anxiety are developed.

Valliant, PM and Blasutti, B. Personality differences of sex offenders referred for treatment. *Psychol Rep.* 1992 Dec; 71(3 Pt 2): 1067-74.

Abstract: Personalities of 64 sex offenders (rapists, molesters, and incestuous types) referred for treatment were compared. No significant differences on MMPI scores or IQ were noted among subgroups of molesters. Significant trait anxiety indicated that molesters of both males and females had higher anxiety than incestuous offenders. Also, a significant difference was noted on state anxiety; all groups decreased scores over treatment. A significant effect of brief therapy also occurred for trait anxiety. All groups but incestuous offenders decreased on trait anxiety over 5-wk. therapy. Male and female molester groups decreased in self-esteem whereas incestuous types and rapists

increased in self-esteem. Implications are provided for these results.

Vanderploeg, RD; Sison, GF Jr, and Hickling, EJ. A reevaluation of the use of the MMPI in the assessment of combat related posttraumatic stress disorder. *J Pers Assess.* 1987 Spring; 51(1): 140-50.

Abstract: This study attempts to validate previously developed, empirically based Minnesota Multiphasic Personality Inventory (MMPI) decision rules (Keane, Malloy, & Fairbank, 1984) to aid in the diagnosis of combat-related posttraumatic stress disorder (PTSD). Four groups of 21 subjects each were identified: PTSD, psychotic, depressed, and chronic pain. A decision rule based on the standard clinical scales resulted in a correct classification rate (PTSD vs. non-PTSD) of 81% across the four-group sample. An empirically derived MMPI PTSD scale resulted in a correct classification rate of 77%. However, 43% of the PTSD subjects were incorrectly classified as non-PTSD by these rules. Independent, blind sorting of the 84 MMPI profiles by two doctoral-level clinical psychologists resulted in "hit rates" similar to the MMPI decision rules. The present results suggest that the previously derived, empirically based MMPI decision rules for PTSD do scarcely better than chance on correct classification of individuals with PTSD. We suggest that the differential diagnosis of PTSD is difficult because of the wide variety of symptoms in common with other diagnostic groups, and hence the variability of PTSD subjects on psychometric measures. We also suggest that the MMPI decision rules of Keane et al. (1984) may have utility in identifying subgroup(s) of combat-related PTSDs.

Vinogradov, MV; Cherkashina, II, and Perel'Man, MI. [Mental state of patients with restricted forms of pulmonary tuberculosis]. *Probl Tuberk.* 1991(10): 41-3.

Abstract: The procedure of the multimodality personality investigation (MMPI) to examine the mental status and personality traits of 61 patients with newly diagnosed pulmonary tuberculosis of limited extent. The clinical and psychodiagnostic examination has revealed the following general types of a response to the disease: alienation from the people around, depressive reaction (18%), negative attitude to treatment (16.1% of the patients refused treatment and 13.1% refused surgical treatment), social adaptation impairment, neglect of the generally accepted behaviour patterns and schizoid personality traits. Along with this, the individual forms of a response to disease detection were determined. They were manifested by a number of symptom complexes: hypochondriac (13.6%), anxiety-depressive (18.4%) and paranoid (9.1%). These mental disorders gravely affected the patients and made treatment of the basic disease more complicated. A long-term conservative treatment aggravated depression and hysterical and schizoid personality traits. The mental status and the types of response were shown to differ from the same reactions in somatic patients with other abnormalities.

Wade, JB; Dougherty, LM; Hart, RP, and Cook, DB. Patterns of normal personality structure among chronic pain patients. *Pain.* 1992 Jan; 48(1): 37-43.

Abstract: Fifty-nine chronic pain patients satisfying one of four previously identified pain group classifications were evaluated using the NEO Personality Inventory (NEO-PI), a standardized measure of normal adult personality structure. Minnesota Multiphasic Personality Inventory (MMPI) pain subgroups differed with respect to level of NEO-PI Neuroticism. In particular, emotionally overwhelmed pain patients as defined by multiple MMPI scale elevations had higher NEO-PI Neuroticism scores. Post hoc analyses revealed higher levels of depression, anxiety, vulnerability, and hostility in emotionally overwhelmed subjects. None of the remaining groups differed from each other on NEO-PI Neuroticism. Additionally, none of the other NEO-PI domains discriminated pain subgroups. NEO-PI profiles for pain patients (except for Neuroticism in emotionally overwhelmed patients) yielded t scores in the average range, suggesting that chronic pain patients present with a relatively normal underlying personality structure.

Wade, JB; Price, DD; Hamer, RM; Schwartz, SM, and Hart, RP. An emotional component analysis of chronic pain. *Pain.* 1990 Mar; 40(3): 303-10.

Abstract: The present study sought to determine the relative contribution of frustration, fear, anger and anxiety, to the unpleasantness and depression pain patients experience. Sixty-nine women and 74 men, with an average age of 47 years, were included. Patients underwent psychological evaluation which included use of the Minnesota Multiphasic Personality Inventory (MMPI), Beck Depression Inventory (BDI), and 7 visual analog scales (VAS) measuring degree of emotional unpleasantness, pain intensity, anxiety, frustration, fear, anger and depression. Test-retest reliability coefficients were significant for the negative feeling VAS yielding an average reliability coefficient of 0.82. Analyses relating the negative feeling state VAS to pain unpleasantness and depression indices from the MMPI (scale 2) and BDI (sum score) yielded significant canonical correlations. Multiple regression was used to clarify the relationships between negative feeling VAS, pain-related unpleasantness, and indices of depression. After statistically controlling for intensity of pain, anxiety and frustration predicted unpleasantness. Regression analyses

indicate that anger is an important concomitant of the depression that pain patients experience. The results suggest that anger and frustration are critical concomitants of the pain experience. Treatment techniques specifically targeting anger and frustration in these patients may prove efficacious.

Watson, CG; Kucala, T.; Manifold, V.; Vassar, P., and Juba, M. Differences between posttraumatic stress disorder patients with delayed and undelayed onsets. *J Nerv Ment Dis.* 1988 Sep; 176(9): 568-72.

Abstract: In an effort to determine whether they differ from one another in important ways, the authors compared posttraumatic stress disorder (PTSD) victims who reported delayed onsets with those who claimed undelayed onsets of PTSD symptom self-ratings, MMPI clinical and validity scale scores, stress histories, and repression measures. The number and the sizes of the differences did not exceed chance expectations and did not support the establishment of separate delayed- and undelayed-onset PTSD categories in the diagnostic manual, nor did they support the hypotheses that the delay, when it appears, is attributable to the magnitude of the trauma, the severity of the symptoms, repression, or a limited stress history.

Watson, CG; Plemel, D.; DeMotts, J.; Howard, MT; Tuorila, J.; Moog, R.; Thomas, D., and Anderson, D. A comparison of four PTSD measures' convergent validities in Vietnam veterans. *J Trauma Stress.* 1994 Jan; 7(1): 75-82.

Abstract: We compared the convergent validities of four commonly used post-traumatic stress disorder (PTSD) measures in 80 help-seeking Vietnam veterans by contrasting their intercorrelations. When scored as continuous severity or frequency measures, the Mississippi Scale for Combat-related PTSD's and the Post-Traumatic Stress Disorder Interview's (PTSD-I's) concordances with other measures were similar to one another's and generally larger than those of either the Diagnostic Interview Schedule (DIS) PTSD module or the MMPI PTSD scale. However, when used only to identify stress disorder's presence or absence, the four techniques' concordances were nearly identical. This suggested that the four measures have similar convergent validities when used simply to identify PTSD, but that the PTSD-I and Mississippi scale offer better convergent validity than the MMPI or DIS instruments when used as severity measures.

Wink, P. Two faces of narcissism. *J Pers Soc Psychol.* 1991 Oct; 61(4): 590-7.

Abstract: The present study examines the lack of strong correlations among existing self-report measures of narcissism. A principal-components analysis of 6 MMPI narcissism scales resulted in 2 orthogonal factors, 1 implying Vulnerability-Sensitivity and the other Grandiosity-Exhibitionism. Although unrelated to each other, these 2 factors were associated with such core features of narcissism as conceit, self-indulgence, and disregard of others. Despite this common core, however, Vulnerability-Sensitivity was associated with introversion, defensiveness, anxiety, and vulnerability to life's traumas, whereas Grandiosity-Exhibitionism was related to extraversion, self-assurance, exhibitionism, and aggression. Three alternative interpretations of these results are considered, and an argument for the distinction between covert and overt narcissism is made.

Wrobel, TA. Validity of Harris and Lingoes MMPI subscale descriptors in an outpatient sample. *J Pers Assess.* 1992 Aug; 59(1): 14-21.

Abstract: The validity of the Minnesota Multiphasic Personality Inventory (MMPI) subscales described by Lingoes (1960) along with his predicted correlates was investigated using clinicians' ratings of 85 outpatient therapy clients. Of the 68 predicted correlates, 30 were significant and supported the description of 16 of the subscales, but not necessarily their ability to discriminate nuances of pathology. The most significant correlations were obtained by the D, Pd and Sc subscales, the fewest by the Hy, Pa and Ma subscales. The lack of significant results for 12 subscales is discussed in terms of subscale unreliability, subscale length, or insufficiencies in the criteria or sample tested. The possibility that several of the unsupported subscales may function in the detection of defensiveness was considered.

Wu, CY. [Analyzing MMPI examination in patients with neurosis by the criteria of Chinese T score]. *Chung Hua Shen Ching Ching Shen Ko Tsa Chih.* 1990 Aug; 23(4): 200-2, 253.

Abstract: In the present paper, the results are summarized of MMPI measurements in 210 cases of neurosis. They, by the criteria of Chinese T score, show an increase in the scales 1, 2, 3 and 7 and have an identical rate of 87.5%. Hence, it is reasonable for the scales above to be designated as the coding model of neurosis. In every type of neurosis the scales 1, 2, 3 and 7 have a tendency to increase, but there is a slight difference in their highest point and kurtosis. In depression neurosis, neurasthenia and anxiety neurosis the scale 2 (D) increases dominantly; in hysteria, the scale 3 (HY); in hypochondria, the scale 1 (HS); in phobic and compulsion neurosis, the scale 7. Therefore, MMPI measurements can be useful for clinical classification of neurosis.

Yunus, MB; Ahles, TA; Aldag, JC, and Masi, AT. Relationship of clinical features with psychological status in primary fibromyalgia. *Arthritis Rheum.* 1991 Jan; 34(1): 15-21.

Abstract: Clinical features and psychological status determined by the Minnesota Multiphasic Personality Inventory (MMPI) in 103 patients with primary fibromyalgia syndrome (PFS) were analyzed by univariate and multivariate techniques to determine if clinical features were related to psychological status or were intrinsic to PFS per se. The central features of PFS, e.g., number of pain sites, number of tender points, fatigue, and poor sleep, were independent of psychological status. However, discriminant analysis identified 4 variables--patient-reported depression, anxiety, stress, and pain severity--which together predicted 3 MMPI subgroups with an accuracy of 55% (P less than 0.001); the only musculoskeletal feature--pain severity--alone provided an accuracy of only 34% (P greater than 0.05). These data suggest a new concept, that the central features of fibromyalgia are independent of the psychological status and are more likely related to the PFS itself. However, pain severity may be influenced by psychological factors.

Zalewski, CE and Gottesman, II. (Hu)man versus mean revisited: MMPI group data and psychiatric diagnosis. *J Abnorm Psychol.* 1991 Nov; 100(4): 562-8.

Abstract: A meta-analysis of Minnesota Multiphasic Personality Inventory (MMPI) data from 403 control and psychiatric samples was used to (a) examine demographics associated with previously published MMPI studies, (b) test Goldberg's (1972) indexes for predicting normal versus deviant and neurotic versus psychotic group membership, (c) compare multiple regression, discriminant function, and logistic regression analyses commonly used to study the relation between the MMPI and diagnostic group membership, and (d) examine the signal within the MMPI as it relates to current psychiatric diagnosis. Group data were found to be efficient indicators of the relation between the MMPI and diagnosis, although efficiency is compromised by within-sample heterogeneity. The 3 statistical methods examined obtained equivalent results. Regression models related to group prediction are presented.

Zgourides, G.; Frey, P.; Camplair, C.; Tilson, M., and Ihli, K. Anxiety and perceived helplessness as measured by MMPI and Exner scored Rorschach protocols in a sample of adolescent outpatients. *Percept Mot Skills.* 1989 Oct; 69(2): 458.