Psychometric Perspectives on Detection of Malingering of Pain

Use of the Minnesota Multiphasic Personality Inventory-2

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Abstract: Self-report plays a primary but not exclusive role in pain assessment. As is true of all self-reported experiences, under certain circumstances, the report of chronic pain can be distorted and misrepresented. There are unique challenges associated with the detection and assessment of malingering or self-report distortion in the evaluation of chronic pain. The current paper provides a rationale for the use of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) in the comprehensive assessment of chronic pain with an emphasis on the advantage the MMPI-2 provides in the detection of response bias or malingering. A critical review of available MMPI-2 validity scales is presented, and recommendations for use of these scales in the evaluation of patients with chronic pain are made.

Key Words: MMPI-2, malingering, chronic pain

The diagnosis and clinical description of chronic pain and the identification of factors that lead to the development of chronic pain are challenges for both the clinician and the researcher. The term “chronic pain” is operationally defined by the duration of the pain. In order for the pain to be considered chronic, it is required to persist continuously for more than 6 months and result in the need for long-term care. In addition, the pain is judged to have persisted beyond the span of time usually required for the injury or tissue damage to heal. Chronic pain can be thought of as the net result of the psycho-physiological and neurochemical consequences of injury and/or the neurophysical perception of tissue damage and the interaction of a multitude of other influences including affective, cognitive, life history, learning and conditioning, and social modeling factors. Chronic pain is always an inferred state that is subjective in nature and by definition is refractory to medical treatment. In short, the experience of persistent pain is the extended subjective response to a sensory experience and is the summation of a multitude of diverse and sometimes mutually independent factors.

The context within which chronic pain is viewed by the clinician becomes an increasingly important issue in the individual assessment of the chronic pain patient because any attempt to quantify the experience of chronic pain in an objective manner must take into consideration and appropriately assess a broad range of factors and influences. Thus, narrow, self-report measures of pain experience are likely to be inadequate and result in a limited perspective of the individual’s pain experience. Consequently, it is important to develop a broad perspective in the assessment of the patient with chronic pain to assure that all aspects of the patient’s experience are accounted for.

In combination with a thorough psychiatric/psychologic interview, a broadband measure of personality and psychopathology such as the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) provides a comprehensive picture of the way an individual responds psychologically to chronic pain in the context of other symptoms. The MMPI-2 can provide information about how typical an individual’s psychologic response to a particular injury or medical condition is and also quantify this response relative to both individuals who are not experiencing the condition and to others who have chronic pain. Finally, the MMPI-2 provides information regarding an individual’s approach to the evaluation and the relative accuracy of symptom self-report. In the remainder of the paper, we will discuss the difficulties inherent in the detection of malingering within the context of the chronic pain population and present a rationale for the use of the MMPI-2 in the detection of malingering and/or distortion of self-report.

IMPORTANCE OF THE EVALUATION OF DISTORTION OF SELF-REPORT IN A COMPREHENSIVE ASSESSMENT OF CHRONIC PAIN

Given that many individuals reporting chronic pain are involved in litigation and are seeking some form of material compensation for their pain and/or disability, the issue of con-
conscious exaggeration or feigning of pain must necessarily be addressed within the context of the psychologic evaluation. Many individuals who experience chronic pain do so as the result of a soft-tissue injury or back injury that leads to litigation either through the worker’s compensation system or through civil tort litigation. Consequently, there are obvious and tangible incentives to exaggerate or falsify the report of persistent refractory pain to obtain tangible goals. According to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) the essential feature of malingering is the intentional production of false or grossly exaggerated physical or psychologic symptoms motivated by external incentives. Therefore, the presence of malingering or response bias must be considered when undertaking the assessment of chronic pain complaints, especially when the complaint is the result of a work-related or personal injury. In this paper, the term “malingering” will be used to describe the intentional production of false or grossly exaggerated symptoms as described in DSM-IV. This more general definition of malingering, which is commonly used in clinical practice, is in contrast to the legal definition of malingering: an act of intentional fraud within the context of personal injury or administrative law proceedings.

The DSM-IV distinguishes malingering from other conditions where the production of symptoms is not intentional (somatoform disorder and conversion disorder) or where the incentive for the production of the symptom is not external (factitious disorder). The dichotomy between intentional and unintentional production of symptoms and external versus internal incentive assumes that the conditions are mutually exclusive and sets up a false dichotomy that is unlikely to reflect clinical realities. Moreover, because clinicians are not mind readers, the DSM-IV asks for the impossible in that it forces the clinician to render an accurate judgment regarding the patient’s incentive for and awareness of a behavior. Indeed, there are those who argue that it is impossible to determine with any degree of accuracy whether someone is malingering chronic pain even with the use of psychometric instruments such as the MMPI-2. Further, by pointing out inconsistencies in self-report in the medical record, the clinician was felt to be putting him or herself in a position of “colluding with the legal system in an attempt to identify malingerers.”

Rogers has proposed a more clinically realistic and pragmatic definition of malingering. This definition incorporates the observation that the level of intention may vary, and the incentives for deception may change over time depending upon the circumstances surrounding the evaluation. According to Rogers’ adaptation model, would be malingerers engage in a “cost-benefit” analysis when confronted with an evaluation. The probability that the individual will distort their presentation increases under the following conditions: when the evaluation is viewed as adversarial, the stakes are high, and other effective instrumental alternatives are unavailable. This definition allows for gradations of malingering and other response styles such as defensiveness and impression management and is more likely to reflect the clinical realities found in the evaluation of patients with chronic pain who are either receiving or contemplating receiving compensation for their injuries. Further, this definition provides a framework within which a psychometric instrument can define the parameters of dissimulation and impression management along dimensions of self-report distortion. In other words, given a reasonably accurate measure, the examiner can specify along a continuum of distortion to what degree the individual is engaging in impression management and to what extent this is affecting the accuracy of the clinical presentation and self-report.

Psychometric instruments such as the MMPI-2 that contain dimensional, empirically derived validity scales can play a critical role in the detection of feigned or exaggerated pain. Unaided by the use of psychometric instruments, the clinical examination of chronic pain complaints and subsequent judgments regarding the legitimacy of those complaints results in an unacceptably high rate of error regardless of training and clinical experience. For example, untreated judges were unable to discriminate accurately among individuals with genuine, suppressed, and faked expression of pain and attributed more pain to individuals who simulated pain expressions. In a study of simulated fibromyalgia syndrome (FMS), trained pain clinic physicians were unable to distinguish between simulators and women with FMS based on “tenderness” at control points. Moreover, based on self-ratings of pain and objective measurement of grip strength, the experienced physicians misidentified 33% of the simulants as having FMS and misidentified 20% of the FMS patients as simulants. Consequently, it is difficult even given immediate visual and verbal information associated with the experience of pain to accurately judge whether the pain is genuine or feigned.

USE OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY/MINNESOTA MULTIPHASIC PERSONALITY INVENTORY-2 IN ASSESSMENT OF CHRONIC PAIN

Despite overly pessimistic conclusions regarding the utility of the MMPI-2 for such purposes (see Fishbain et al), the use of psychometric instruments in the evaluation of pain can provide incrementally useful information in determining the accuracy of self-report. A broadband measure of personality and psychopathology such as the MMPI-2 can contribute significantly to the assessment of malingering in chronic pain by providing information regarding the patient’s approach to the evaluation, the degree to which the patient resembles others who experience chronic pain, and an understanding of the motivational patterns of the patient. The MMPI-2 can address the question of how the person is presenting him or herself within the context of the evaluation and how common such presentations are relative to others with chronic pain.
Characterizing Patients With Chronic Pain With the Minnesota Multiphasic Personality Inventory/Minnesota Multiphasic Personality Inventory-2

A significant advantage of the MMPI-2 over other psychometric instruments and unaided clinical judgment is the empirical development of the instrument and the ease with which profiles can be quantitatively compared with MMPI-2 profiles of relevant comparison groups. There is a rich and extensive literature that dates back 50 years detailing the use of the MMPI/MMPI-2 in the assessment of chronic pain. Moreover, there is an equally rich literature documenting the use of the MMPI/MMPI-2 in the assessment of response styles and detection of malingering. By merging the 2 sources of information with an eye to the unique challenges inherent in the assessment of chronic pain, the MMPI-2 can serve as a powerful tool in the detection of malingering in this population.

An early goal in the use of the MMPI in the assessment of chronic pain was the global characterization of the chronic pain patient. Studies that compared mean MMPI scale scores of patients with chronic pain to a variety of comparison groups did show that elevations on scales associated with somatization and preoccupation with physical health were elevated, but this finding did not necessarily indicate that patients with chronic pain were typically hypochondriacal or hysterical. On the contrary, these findings could be interpreted as indicating increased distress and disability associated with chronic pain. For example, patients with chronic pain produced significantly higher elevations on MMPI-2 scales than did individuals seeking treatment of moderate obesity. This finding was thought to reflect the increased subjective distress experienced in chronic pain. Further, individuals who were inpatients on an orthopedic ward for treatment of low back pain and who had organic findings were asked to take a shortened version of the MMPI twice: once in a pain-free state and again in their current pain state. Both the Hypochondriasis (1) and Hysteria (3) scales were significantly elevated when the patients took the test in their current pain state. Consequently, the use of individual MMPI scales to differentiate among patients with chronic pain is limited, and elevations on specific scales such as Hypochondriasis or Hysteria do not necessarily indicate that the pain experienced is not genuine.

The MMPI was also felt to be useful in differentiating between individuals who experienced “organic” pain and individuals in whom the pain was thought to be functional in nature. Both the clinical scales, Hypochondriasis and Hysteria, as well as specially designed scales (eg, Low Back Scale and Dorsal Scale), were initially thought to be effective in differentiating between patients with organic pain and patients with functional pain. These initial claims were never substantiated.

As the conceptualization of pain moved from the rather simplistic dichotomy of organic versus nonorganic to a broader and more nuanced understanding of the chronic pain experience, the question asked of the MMPI shifted as well. The MMPI began to be used to characterize the patient with chronic pain population in hopes of differentiating the population not in terms of those individuals who experienced genuine (organic) pain from those who did not, but in terms of the emotional response to the pain experience. As the chronic pain population was found to be quite heterogeneous with respect to MMPI profiles, attempts were made to develop reliable clusters or subgroups based on the MMPI that would have differential outcomes. The chronic pain samples were subdivided into subgroups through various techniques ranging from simple visual examination (see the PAIN classification) to more sophisticated cluster analyses that took both profile configuration and elevation into account.

There is remarkable consistency applying cluster analytic techniques across studies using both the MMPI and MMPI-2. When these clustering techniques are applied, 4 groups generally emerge. These groups include an elevated psychopathological group, a group termed the neurotic triad with elevations on the 1, Depression (2), and 3 scales (the neurotic triad), a group marked by elevations on 1 and 3, and finally, a within normal limits (WNL) group. These groups appear to be quite robust and are found cross-nationally in both Australia and the Netherlands. The groups emerge across treatment settings and varying levels of secondary gain and compensation seeking conditions. In a group of patients referred to a work hardening program where 98% were receiving worker’s compensation payments, 14% had an elevation on scale 1 and 17.4% had elevations on both scales 1 and 3, with 43% of the sample producing a WNL profile. Further, in a large sample of patients with chronic low back pain, hierarchical cluster analysis resulted in 4 cluster profiles including a normal (WNL) group, a 1–3/3–1 group, a neurotic triad group, and a depressed pathologic group. Unfortunately, the clustering techniques applied to form these groups tend to classify cases in a procrustean fashion and force relatively dissimilar cases into the same group. This leads to groupings that are heterogeneous and have shown little differentiation among the 3 groups consisting of elevated profiles. Nonetheless, a WNL obtained within the context of chronic pain is associated with a relatively positive outcome.

Prediction of Outcome in Chronic Pain With the Minnesota Multiphasic Personality Inventory/Minnesota Multiphasic Personality Inventory-2

The attempts that have been made to use the MMPI and the MMPI-2 to predict outcome and response to treatment in

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patients with chronic pain have been mixed. A noteworthy exception to this trend was a study conducted by Fordyce et al, where the MMPI was used to prospectively identify workers who subsequently went out on work-related disability claims.\textsuperscript{22} The MMPI was administered to newly hired workers, and, after a 2-year period, work-related disability claims were tallied. The MMPI Hysteria scale significantly and positively predicted being disabled by a work-related injury.\textsuperscript{22} Despite the acknowledged heterogeneity of patients with chronic pain with respect to MMPI profiles, elevations on the Hysteria scale produced prior to the occurrence of any injury and before the development of the chronic pain predicted those workers who went out on disability claims. In a prospective study of firefighters who were administered the MMPI/MMPI-2 as part of the hiring process, 3 MMPI scales—Hysteria, Psychopathic Deviate (4), and Social Introversion (0)—were positively related to the frequency of subsequent on-the-job injuries.\textsuperscript{23} Furthermore, the Hysteria scale was one of several psychosocial predictors of failure to return to work a year after acute low back injury and the development of chronic low back pain and disability.\textsuperscript{24} In further support of the Fordyce et al\textsuperscript{22} findings, elevation on the MMPI-2 Harris Lingos subscale Lassitude-Malaise was a negative predictor of return to work after completion of a 4-week chronic pain program. This finding emerged despite the fact that there were no differences observed in improvement of objective physical functioning or psychologic distress between individuals who failed to return to work and those who did return to work.\textsuperscript{25} The preceding studies suggest that factors tapped by an individual’s response to the items on the Hysteria scale are associated with becoming disabled as a result of a work-related injury and remaining disabled after treatment. Although there is no clear evidence that elevations on the Hysteria scale per se are associated with a conscious effort to feign chronic pain or somatic symptoms, some have argued that extreme elevations on scales 1 and 3 (1 standard deviation above the mean for patients with chronic pain) may indicate somatic malingering.\textsuperscript{26}

**Minnesota Multiphasic Personality Inventory/Minnesota Multiphasic Personality Inventory-2 Profiles of Litigating Patients With Chronic Pain**

Given the association between consciously produced symptoms and tangible material gain necessary for the diagnosis of malingering, it seems reasonable to ask whether a particular MMPI-2 profile is more frequently associated with patients with chronic pain involved in litigation or seeking compensation for their condition. In a study of 502 inpatients in a chronic pain treatment program, there was no difference in mean profile between those patients that were compensation seeking and involved in litigation and those who were not.\textsuperscript{3} One reason for the failure to find differences on the MMPI-2 between litigators and nonlitigators in this study was that those who were obviously malingering were screened out and not allowed to participate in the treatment program. The MMPI profiles of a group of patients who completed a comprehensive pain treatment program and who were rated by the staff to have shown a clear and consciously produced inconsistency in their statements or behaviors had higher scores on the Hysteria scale than did their consistent fellow patients.\textsuperscript{27} The inconsistent patients were more likely to have pending litigation, lower levels of medical findings, and were observed to be less compliant than were the pain patients who did not show such inconsistencies. Consequently, there does not appear to be a particular profile type or scale elevation associated with compensation seeking in chronic pain populations. However, as mentioned previously, an elevation on the Hysteria scale does seem to tap certain aspects of the individual’s response to injury that prevents a swift recovery.\textsuperscript{22,25,27}

**USE OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY/MINNESOTA MULTIPHASIC PERSONALITY INVENTORY-2 IN DETECTION OF MALINGERING IN CHRONIC PAIN**

**Psychiatric Comorbidity**

Chronic pain frequently occurs within the context of psychiatric illness or, in some instances, results in the development of a psychiatric illness.\textsuperscript{28} The MMPI-2 can provide particularly relevant information with respect to the cooccurrence of a psychiatric condition such as depression or anxiety in chronic pain populations.\textsuperscript{3} For example, an individual who has experienced a work-related injury and has subsequently developed chronic pain claims to have significant consequential depression, but the MMPI-2 profile produced by the patient does not indicate depression. This inconsistency between self-report and an empirically derived and objective measure of depressed mood suggests either the level of depression experienced is not significant or the patient’s self-report is questionable. Moreover, the MMPI-2 contains validity scales that were specifically developed to detect malingering of psychiatric illness.\textsuperscript{29,30} In particular, the infrequency scales [F, F\textsubscript{B}, and F(p)] have been shown to accurately identify psychiatric patients who are either generally exaggerating existing psychopathology or feigning a particular psychiatric condition such as depression or schizophrenia.\textsuperscript{31–33}

The detection of malingering of somatic complaints and pain with the MMPI-2 is more complicated than the detection of malingering of psychiatric illness due to the heavy reliance on self-report for the assessment of chronic pain and the lack of specific scales on the MMPI-2 that were designed to assess exaggeration of somatic complaints. One perspective on the assessment of malingering in chronic pain holds that unless there is clear evidence of malingering or factitious disorder, report of chronic pain should be regarded as genuine.\textsuperscript{28}
However, under most circumstances there is no clear evidence of malingering or factitious disorder available to the clinician. Other factors can enter into the decision regarding the validity of a patient’s report of pain, such as social variables and the context within which the pain is reported. For example, the pain and disability reported by individuals who were not involved in litigation and where objective medical evidence was strong was considered to be more legitimate than the pain complaints of individuals involved in litigation where the objective medical evidence (computed tomography [CT] scan and electromyograph [EMG]) would not account for the level of reported pain. In addition, psychosocial variables including worker’s compensation and personal injury insurance status differentiated individuals who were rated as disabled due to chronic low back pain 1 year after the initial report of pain onset. The failure to return to work and subsequent disability status was unrelated to severity of initial injury or the physical demands of the jobs to which the patients had to return after their injury. Thus, situational and psychosocial variables influence both report of pain and observer ratings of pain.

Regardless of the patient’s self-report, under certain conditions, for example, when the patient is involved in litigation or compensation is at stake, exaggeration or magnification of pain should be considered during the assessment process. Rather than making a dichotomous judgment between malingered and nonmalingered self-report, a more meaningful way to frame the challenge is to ask to what degree the individual’s self-report of pain is distorted, regardless of the cause of the distortion.

Detection of Inconsistent Responding With the Minnesota Multiphasic Personality Inventory-2

The MMPI-2 contains standard validity scales that objectively assess response distortion and the degree to which the MMPI-2 generated self-report is accurate. Elevations on scales that assess inconsistent responding or the failure to attend to the content of the individual items can reflect confusion or lack of cooperation in the evaluation. Excessive failure to respond to items in an otherwise oriented and cognitively intact individual may reflect an uncooperative or oppositional attitude. By not responding to items, an individual can avoid revealing censorious personal information and thwart the objective assessment of his or her current clinical condition. Elevations on scales that measure consistency of item response can indicate carelessness and uncooperativeness or a deliberate attempt to appear confused or cognitively compromised. Depression accompanied by compromised concentration and memory are frequent psychologic sequelae of chronic pain complaints in worker’s compensation claims. In the absence of clear independent evidence of compromised cognition or confusion, the production of an invalid MMPI-2 profile based on elevations on the Variable Response Inconsistency Scale (VRIN) or True Response Inconsistency Scale (TRIN) within the context of the evaluation of chronic pain should raise the question of a deliberate attempt to appear confused or simply indicate a lack of cooperation.

Detection of Exaggeration or Feigning With the Minnesota Multiphasic Personality Inventory-2

A second set of validity scales includes the infrequency scales [F, Fb, F(p)]. These scales contain items that are infrequently endorsed by the normative group and in the case of the F(p) by both the normative group and by groups of psychiatric inpatients. The infrequency scales are quite sensitive to malingering of psychiatric illness and show good to excellent positive predictive power, negative predictive power, and overall hit rate in the detection of malingered psychiatric illness. Significant elevations on these scales seem to be relatively infrequent in chronic pain populations, but do occur. Others have argued that the F scale is not a particularly useful measure of dissimulation in personal injury evaluations where pain and somatic symptoms are common. Nonetheless, given the significant comorbidity of psychiatric illness with chronic pain conditions and the fact that the infrequency scales are quite sensitive to symptom magnification in psychiatric populations, significant elevations on those scales within the context of chronic pain point to marked distortion in self-report.

Detection of Defensiveness or Impression Management With the Minnesota Multiphasic Personality Inventory-2

More commonly observed among patients with chronic pain are significant elevations on scales associated with positive and extremely virtuous self-presentation and general defensiveness. Elevation above a T-score of 60 on the L scale is associated with the denial of minor character flaws and the claim of excessive virtue in a rather naive and unsophisticated manner. Nearly one-half of a group of patients with chronic pain who were participating in a work-hardening program produced defensive MMPI-2 profiles. There was a 6-fold increase in the failure to return to work after the injury if there was a significant elevation on the L scale. Further, those participants in a multidisciplinary treatment program for chronic pain who were considered defensive based on elevations on the L scale performed poorly on a variety of outcome measures compared to patients with chronic pain with lower scores on L.

The K and the S scales assess more subtle forms of defensiveness. Elevation on the K scale is associated with the denial of significant psychologic problems in psychiatric settings. In comparison, the S scale was developed for use in non-clinical settings and is associated with the denial of psychologic problems and moral flaws while simultaneously claiming to possess a greater valuation of human worth and a more optimistic view of the future.
text of an evaluation may wish to present themselves as highly moral and admirable individuals who are not experiencing psychiatric problems or concerns while still being troubled by significant pain resulting from an injury. By claiming a number of positive virtues and presenting themselves as responsible and psychologically well-adjusted while reporting severe pain and somatic distress, individuals may feel they are more clearly attributing the distress they do experience to the injury and minimizing other, non–injury-related sources of their distress. Again, within the context of the evaluation of chronic pain, observed elevations on K or S that exceed a T-score of 65 and that are accompanied by elevations on the 1 or 3 scales are cause for concern and suggest that the individual is selectively tailoring their presentation to maximize the impact of somatic problems and minimize psychologic or psychiatric factors.

In studies that have compared groups of patients with chronic pain with regard to inferred level of secondary gain (eg, litigating versus nonlitigating), results have been limited with regard to the utility of standard MMPI validity scales. Univariate analysis of the MMPI profiles of litigating versus nonlitigating patients with chronic pain indicated that the Subtle Obvious (S-O) index and the F-K index discriminated between the litigators and nonlitigators and showed the strongest relationships. There was considerable redundancy among dependent measures, and once this redundancy was taken into account, the S-O index accounted for most of the unique variance.44 Unfortunately, there are serious concerns with the validity of the S-O index, and the subtle items are no longer scored on the MMPI-2.41,45 As mentioned earlier, the MMPI profiles of patients with chronic low back pain who consciously produced at least 1 inconsistency in their self-report statements or observed behavior during participation in an interdisciplinary treatment program were compared with their consistent participants. Inconsistent participants were more likely to have higher elevation on scales 3, pending litigation, and poor treatment compliance.27 There was no difference between the groups on mean L, F, or K scores.

Caution Is Recommended in Using the Lees-Haley “Fake Bad Scale” in Assessing Pain Behavior

The seemingly limited findings with respect to traditional MMPI validity scales in the detection of malingering of physical disability served as a spur to the development of a specialized scale for the detection of malingering of physical symptoms.26,46,47 An example of one such scale is the Lees-Haley “Fake Bad Scale” (FBS).47 This scale was developed from a subset of MMPI-2 items in an effort to assess simulation or exaggeration of illness or disability among personal injury claimants. Very little psychometric information is available on the measure, therefore it is difficult for practitioners to determine its effectiveness in assessing patients in medical or forensic settings.

In a recent study using several large databases, Butcher et al48 evaluated the psychometric properties of the scale and examined the extent to which it categorized patients from various clinical settings as “malingering.” Initially, these investigators performed a content analysis of the scale and examined the scale membership of the FBS items on traditional MMPI-2 measures. This analysis indicated that the FBS does not appear to be related to other indices of malingering on the MMPI-2 [eg, F, Fb, F(p), L, and K]. Rather, the FBS has substantial overlap with MMPI-2 scales (1, 3, and Health Concerns) that address somatic complaints. Patients, such as those with chronic pain, who have a broad range of physical problems would likely score high on the FBS simply by reporting their physical problems.48

In the study by Butcher et al, the MMPI-2 profiles from 6 settings were used in the analysis: psychiatric inpatient (N = 6731); correctional facility (N = 2897); chronic pain program (N = 4408); general medical (N = 5080); Veteran’s Administration hospital inpatient (N = 901); and personal injury litigation (N = 157).48 Most correlations of the FBS and raw scores on the MMPI-2 scales were positive with correlations among the validity scales being lower than correlations among the clinical and content scales. The FBS was most strongly associated with scores on the clinical scales 1, 2, and 3 and the content scales Health Concerns and Depression. When a conservative cutoff of 24 was used, on average, the FBS classified 5.1% to 38.9% of individuals as malingerers. The highest malingering classification was for the women’s personal injury sample (46.6%), whereas the lowest was among male prison inmates (4.6%). Compared to men, in most samples, almost twice as many women were classified as malingerers. The results indicate that the FBS is more likely to measure general maladjustment and somatic complaints rather than malingering. The rate of false positives produced by the scale is unacceptably high, especially in psychiatric settings (Table 1). The scale is likely to classify an unacceptably large number of individuals who are experiencing genuine psychologic distress as malingerers. Butcher et al recommended that the FBS not be used in clinical settings nor should it be used during disability evaluations to determine malingering because patients with genuine psychologic or physical health problems could be labeled as “malingering” when they are not likely to be.48

GENERAL GUIDELINES FOR THE DETECTION OF MALINGERING WITH THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY-2 IN CHRONIC PAIN

The detection of malingering in chronic pain populations is an inherently complicated process. Approaching the challenge in an overly simplistic manner by reducing the clinical decision to a simple dichotomy—malingered versus non-malingered—fails to acknowledge that both the pain experience and the motivation to alter self-report is a fluid process.
By necessity in making a judgment regarding the individual pain experience, the clinician is required to assess the degree of self-reported pain along with the probability that the self-report is distorted. The MMPI-2 can provide useful information in specifying the degree to which the individual is altering his or her presentation as well as the psychologic context within which the pain complaint occurs. By comparing an individual MMPI-2 profile to large groups of patients with chronic pain, the clinician can determine across dimensions of severity and configuration how typical the individual’s current clinical presentation is for a particular setting. In addition, by looking at the existing validity scales, the clinician can determine how typical the individual’s response is with respect to impression management and the accuracy of self-report. It is inherently adaptive for most, if not all, individuals who are involved in a compensation process surrounding a physical injury to put their “best foot forward” and present themselves as virtuous victims of misfortune while highlighting the physical and emotional consequences of the injury. Further, if one is in pain and the pain has not responded to treatment, it is understandable that the individual would be more likely to draw attention to the pain and the discomfort she or he is experiencing in an attempt to gain relief. The question becomes not whether the individual is experiencing real “organic” pain or “nonorganic” pain, but to what degree the expression of the pain experience is distorted and at what point the self-report becomes so distorted that it no longer provides valid information.

When assessing the patient with chronic pain using the MMPI-2, the clinician first looks to the standard validity scales to determine if the patient responded consistently to the content of the items. If there is an excessive number of items omitted or if scales such as VRIN or TRIN are elevated beyond a T-score of 80, in the absence of independent documentation of clouding of consciousness or confusion, a lack of cooperation or deliberate attempt to obscure relevant personal information should be considered. Given the high rate of psychiatric comorbidity in chronic pain populations, elevations on the infrequency scales indicate the deliberate feigning or exaggeration of psychiatric illness. Excessive defensiveness as evidenced by the denial of psychologic problems and an extremely virtu-
ous self-presentation associated with the denial of moral flaws as evidenced by elevations on the L, K or S scales suggests impression management and the deliberate omission of potentially relevant behaviors or personality traits. Taken together, the standard MMPI-2 validity scales can provide useful information regarding the presence or absence of malingering in chronic pain. The FBS, a scale developed specifically to detect malingering of somatic symptoms, should not be employed for this purpose due to the unacceptably high false-positive rate across a wide range of settings.

FUTURE RESEARCH DIRECTIONS

Although the standard MMPI-2 validity scales continue to provide a wealth of information regarding the presence of response bias within the context of the chronic pain population, there is clearly a need for further research. Specifically, there is a need for the development of a specialized validity scale that is related to the psychologic malingering of somatic complaints and physical pain. As a first step in the development of such a scale, identification of MMPI-2 items that are infrequently endorsed by patients with somatic illnesses or serious chronic illnesses should be undertaken. Once infrequently endorsed items are identified and aggregated into a scale, the validity of the scale in identifying malingered chronic pain can be examined through the use of analog studies with physically ill individuals. For example, the incremental validity of a newly developed infrequency scale can be demonstrated by asking individuals with a physical illness who do not experience serious pain to malinger chronic pain on the MMPI-2. Through the use of such study designs, the effectiveness of the new scale in identifying malingered chronic pain as well as the relative incremental contribution of traditional MMPI-2 validity scales to the detection of malingered chronic pain can be determined. Analog studies are a necessary but not sufficient step in the development of objective methods for detection of malingering. Given the adverse consequence of false-positive determinations in detection of malingering, the generalizability of findings from such studies must be confirmed before these methods are applied to real-world clinical settings. There are important differences between individuals who feign pain or disability within the context of a medical examination and individuals who have volunteered to feign chronic pain or disability as part of a research protocol. For example, actual malingerers have a great deal at stake and are highly motivated to successfully feign somatic symptoms and pain and avoid being discovered by examiners. Volunteer participants in analog studies rarely achieve an equivalent level of effort in feigning somatic symptoms and chronic pain due to the lack of equivalent incentives or consequences.8,49 A judicious combination of known-groups comparisons where individuals who independently have been determined to have malingered are compared with group of individuals who are responding candidly and analog design studies can address the generalizability problem and lead to the development of valid and useful methods to detect malingering of chronic pain using the MMPI-2.

In sum, the MMPI-2 provides an objective and dimensional perspective of the psychologic experience of chronic pain. Specifically, the MMPI-2 can assess and quantify the accuracy of self-report, the patient’s response attitudes, and overall cooperation with the assessment. Further, the MMPI-2 provides a relative comparison of symptomatic status and relative level of psychologic distress compared with other patient groups. Finally, the MMPI-2 can indicate the long-term stability of reported problems and point to potential impediments in compliance with treatment recommendations.11,50 The MMPI-2 cannot independently make dichotomous judgments regarding the source of the chronic pain complaint or the absolute accuracy of the self-report. Nevertheless, the great advantage of the MMPI-2 relative to more narrowly focused instruments in the assessment of chronic pain is the capacity to provide a broad perspective on the psychologic context within which the pain occurs and permit the development of a dimensional perspective on the accuracy of self-report.

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