MMPI-2-RF®

Minnesota Multiphasic Personality Inventory-2 Restructured Form®

Yossef S. Ben-Porath, PhD, & Auke Tellegen, PhD

ANNOTATED SAMPLE REPORT

This MMPI-2-RF Spinal Cord Stimulator Candidate Interpretive Report was generated from Q-global®, Pearson's web-based scoring and report application, using Ms. A's responses to the MMPI-2-RF items.

Spinal Cord Stimulator Candidate Interpretive Reports can also be produced using Pearson's Q Local™ software and mail-in scoring.

MMPI-2-RF®
Spinal Cord Stimulator Candidate Interpretive Report

Andrew Block, PhD, & Yossef S. Ben-Porath, PhD

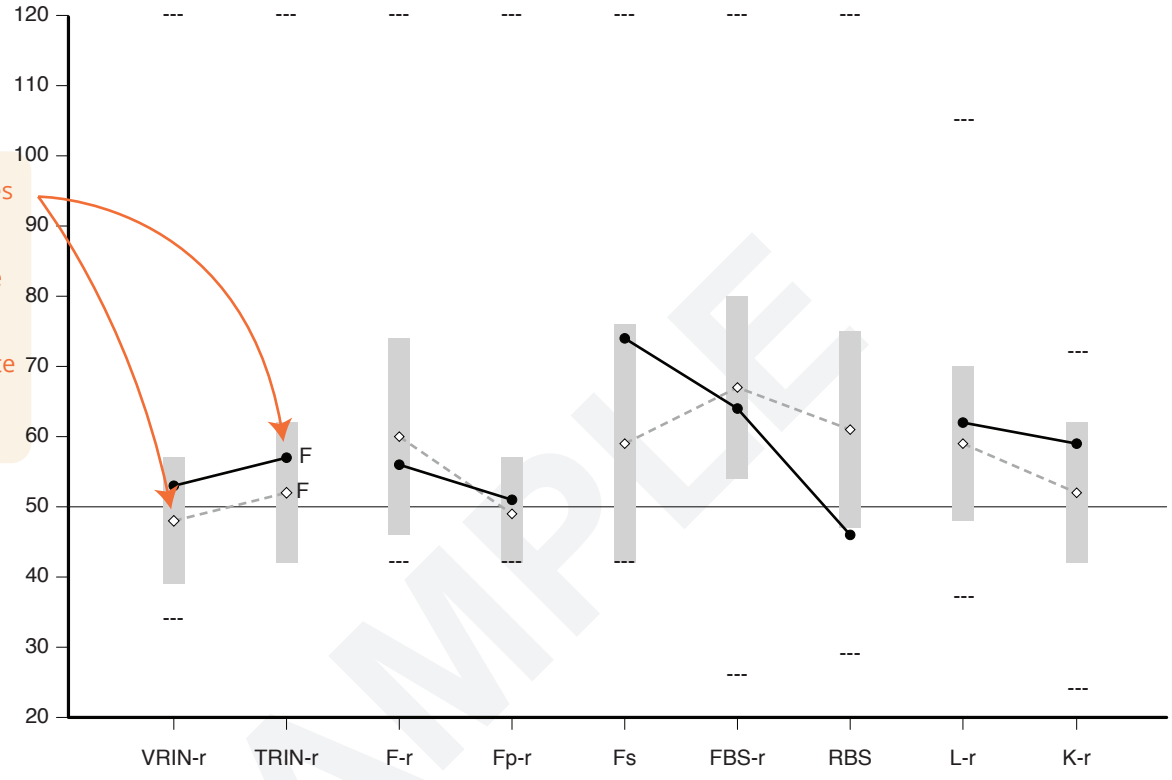
ID Number:	Mrs. A
Age:	62
Gender:	Female
Marital Status:	Divorced
Years of Education:	Not reported
Date Assessed:	01/09/2018

[4.2 / 57 / __VERSION__]

MMPI-2-RF Validity Scales

Comprehensively assess protocol validity with effective, reliable indicators of random responding, fixed responding, over-reporting, and under-reporting.

Each profile provides a plot of the test taker's scores (solid circle) and the mean scores of the Spinal Cord Stimulator Candidate comparison group (open diamond).



	VRIN-r	TRIN-r	F-r	Fp-r	Fs	FBS-r	RBS	L-r	K-r
Raw Score:	4	10	3	1	4	12	4	5	10
T Score:	53	57 F	56	51	74	64	46	62	59
Response %:	100	100	100	100	100	100	100	100	100

Cannot Say (Raw): 0 Percent True (of items answered): 21 %

Comparison Group Data: Spinal Cord Stimulator Candidate (Women), N = 336

	VRIN-r	TRIN-r	F-r	Fp-r	Fs	FBS-r	RBS	L-r	K-r
Mean Score (◇ - - ◇):	48	52 F	60	49	59	67	61	59	52
Standard Dev (±1 SD):	9	10	14	8	17	13	14	11	10
Percent scoring at or below patient:	82	76	58	80	90	51	17	68	80

The highest and lowest T scores possible on each scale are indicated by a "---"; MMPI-2-RF T scores are non-gendered.

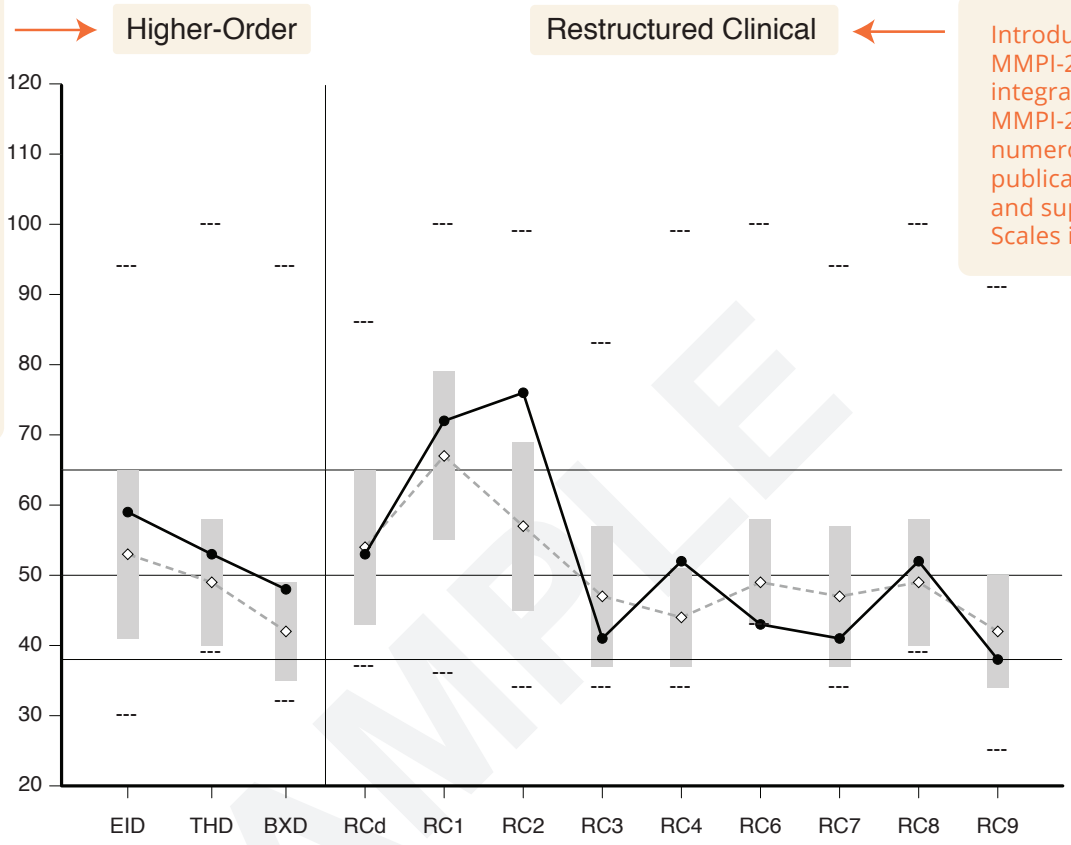
VRIN-r	Variable Response Inconsistency	Fs	Infrequent Somatic Responses	L-r	Uncommon Virtues
TRIN-r	True Response Inconsistency	FBS-r	Symptom Validity	K-r	Adjustment Validity
F-r	Infrequent Responses	RBS	Response Bias Scale		
Fp-r	Infrequent Psychopathology Responses				

The Spinal Cord Stimulator Candidate comparison groups are made up of 218 men and 336 women. These data are tied to the Comparison Group Findings section of the report.

MMPI-2-RF Higher-Order (H-O) and Restructured Clinical (RC) Scales

The Higher-Order Scales are empirically derived, define classic dispositional distinctions corresponding to "affect, cognition, and conation," and provide an organizing interpretive framework.

Introduced with the MMPI-2 in 2003 and integrated into the MMPI-2-RF in 2008, numerous publications guide and support RC Scales interpretation.



	EID	THD	BXD	RCd	RC1	RC2	RC3	RC4	RC6	RC7	RC8	RC9
Raw Score:	17	2	5	5	12	11	2	5	0	2	2	5
T Score:	59	53	48	53	72	76	41	52	43	41	52	38
Response %:	100	100	100	100	100	100	100	100	100	100	100	100

Comparison Group Data: Spinal Cord Stimulator Candidate (Women), N = 336

	EID	THD	BXD	RCd	RC1	RC2	RC3	RC4	RC6	RC7	RC8	RC9
Mean Score (◇- - -◇):	53	49	42	54	67	57	47	44	49	47	49	42
Standard Dev (±1 SD):	12	9	7	11	12	12	10	7	9	10	9	8
Percent scoring at or below patient:	74	78	84	53	70	94	35	88	59	33	74	38

The highest and lowest T scores possible on each scale are indicated by a "---"; MMPI-2-RF T scores are non-gendered.

EID Emotional/Internalizing Dysfunction
THD Thought Dysfunction
BXD Behavioral/Externalizing Dysfunction

RCd Demoralization
RC1 Somatic Complaints
RC2 Low Positive Emotions
RC3 Cynicism
RC4 Antisocial Behavior

RC6 Ideas of Persecution
RC7 Dysfunctional Negative Emotions
RC8 Aberrant Experiences
RC9 Hypomanic Activation

Response percentages help assess the impact of nonresponding to items. The response percentage appears in bold if it drops below 90%, indicating a need to qualify scale score interpretation.

MMPI-2-RF Somatic/Cognitive and Internalizing Scales

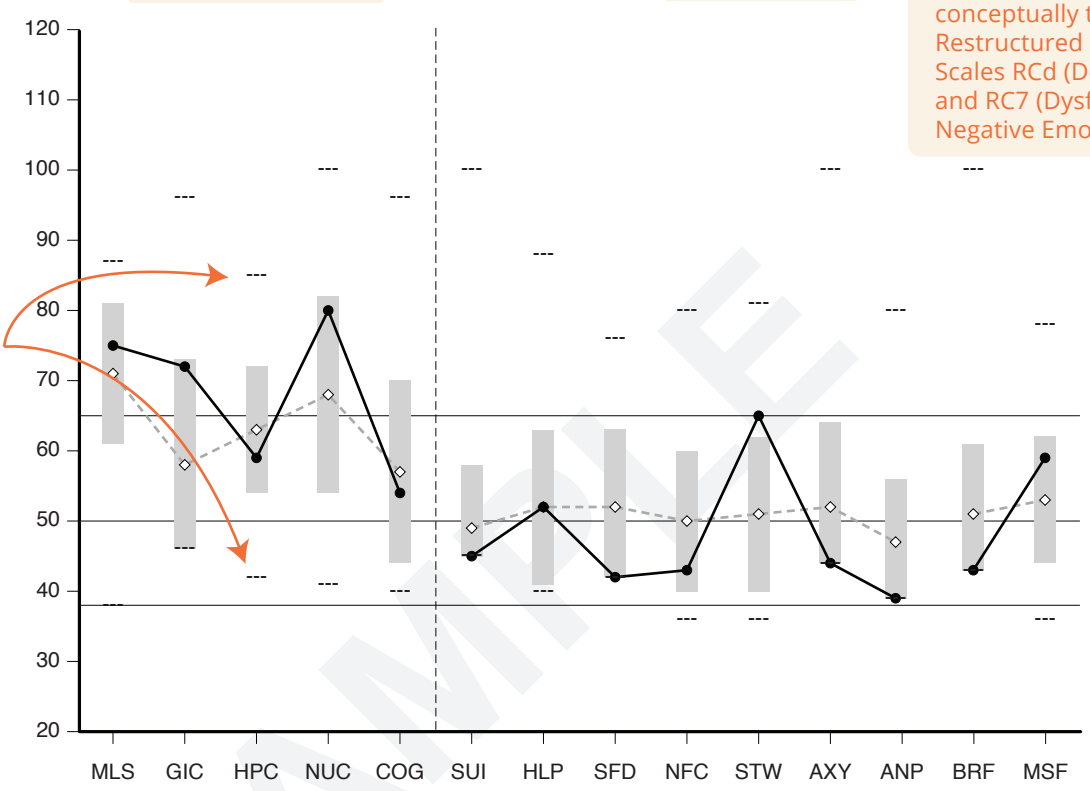
Measures of self-reported poor health and specific somatic and cognitive complaints.

Somatic/Cognitive

Internalizing

Measures of emotional dysfunction linked empirically and conceptually to Restructured Clinical Scales RCd (Demoralization) and RC7 (Dysfunctional Negative Emotions).

T-score floor and ceiling are conveniently marked for every scale to help you more easily evaluate scores.



	MLS	GIC	HPC	NUC	COG	SUI	HLP	SFD	NFC	STW	AXY	ANP	BRF	MSF
Raw Score:	6	2	2	6	2	0	1	0	1	5	0	0	0	6
T Score:	75	72	59	80	54	45	52	42	43	65	44	39	43	59
Response %:	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Comparison Group Data: Spinal Cord Stimulator Candidate (Women), N = 336

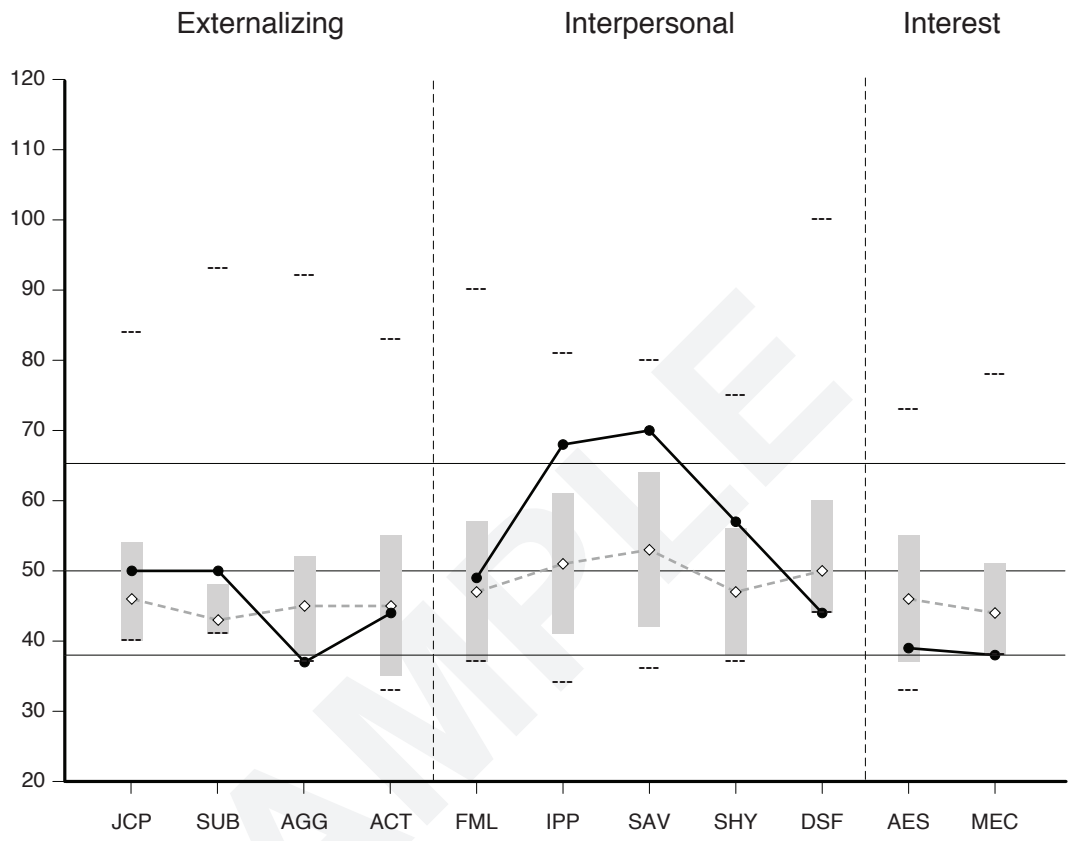
	MLS	GIC	HPC	NUC	COG	SUI	HLP	SFD	NFC	STW	AXY	ANP	BRF	MSF
Mean Score (◇---◇):	71	58	63	68	57	49	52	52	50	51	52	47	51	53
Standard Dev (±1 SD):	10	15	9	14	13	9	11	11	10	11	12	9	10	9
Percent scoring at or below patient:	69	86	54	87	57	83	71	38	37	92	66	40	53	84

The highest and lowest T scores possible on each scale are indicated by a "---"; MMPI-2-RF T scores are non-gendered.

MLS	Malaise	SUI	Suicidal/Death Ideation	AXY	Anxiety
GIC	Gastrointestinal Complaints	HLP	Helplessness/Hopelessness	ANP	Anger Proneness
HPC	Head Pain Complaints	SFD	Self-Doubt	BRF	Behavior-Restricting Fears
NUC	Neurological Complaints	NFC	Inefficacy	MSF	Multiple Specific Fears
COG	Cognitive Complaints	STW	Stress/Worry		

Indicates the percentage of comparison group members who scored at or below the test taker on each scale. These values are similar in meaning to percentiles.

MMPI-2-RF Externalizing, Interpersonal, and Interest Scales



	JCP	SUB	AGG	ACT	FML	IPP	SAV	SHY	DSF	AES	MEC
Raw Score:	1	1	0	2	2	8	8	5	0	1	0
T Score:	50	50	37	44	49	68	70	57	44	39	38
Response %:	100	100	100	100	100	100	100	100	100	100	100

Comparison Group Data: Spinal Cord Stimulator Candidate (Women), N = 336

	JCP	SUB	AGG	ACT	FML	IPP	SAV	SHY	DSF	AES	MEC
Mean Score (◇---◇):	46	43	45	45	47	51	53	47	50	46	44
Standard Dev (±1 SD):	8	5	7	10	10	10	11	9	10	9	7
Percent scoring at or below patient:	84	96	40	64	75	96	93	91	72	39	33

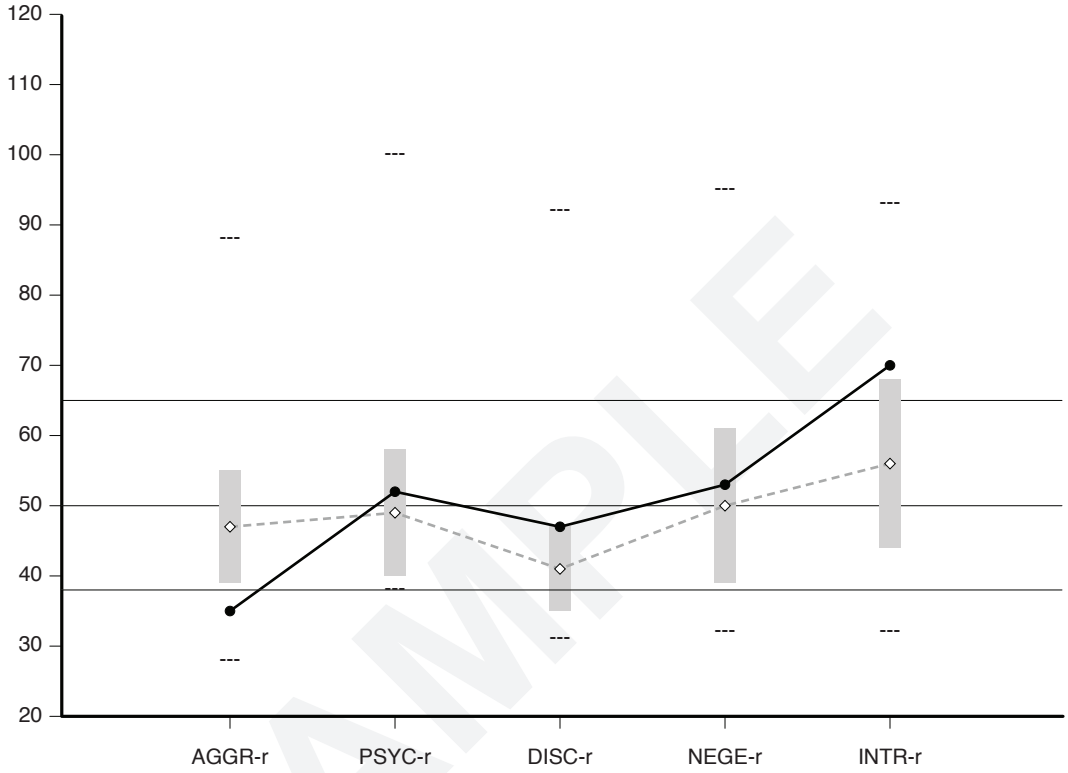
The highest and lowest T scores possible on each scale are indicated by a "---"; MMPI-2-RF T scores are non-gendered.

JCP	Juvenile Conduct Problems	FML	Family Problems	AES	Aesthetic-Literary Interests
SUB	Substance Abuse	IPP	Interpersonal Passivity	MEC	Mechanical-Physical Interests
AGG	Aggression	SAV	Social Avoidance		
ACT	Activation	SHY	Shyness		
		DSF	Disaffiliativeness		

A legend with scale abbreviations and full names is provided on each profile page for easy reference.

MMPI-2-RF PSY-5 Scales

Harkness and McNulty's PSY-5 Scales provide a personality-disorder perspective on major dimensions of personality pathology.



	AGGR-r	PSYC-r	DISC-r	NEGE-r	INTR-r
Raw Score:	2	2	5	8	13
T Score:	35	52	47	53	70
Response %:	100	100	100	100	100

Comparison Group Data:	Spinal Cord Stimulator Candidate (Women), N = 336				
Mean Score (◇- - -◇):	47	49	41	50	56
Standard Dev (±1 SD):	8	9	6	11	12
Percent scoring at or below patient:	4	74	85	72	88

The highest and lowest T scores possible on each scale are indicated by a "---"; MMPI-2-RF T scores are non-gendered.

AGGR-r	Aggressiveness-Revised
PSYC-r	Psychoticism-Revised
DISC-r	Disconstraint-Revised
NEGE-r	Negative Emotionality/Neuroticism-Revised
INTR-r	Introversion/Low Positive Emotionality-Revised

MMPI-2-RF T SCORES (BY DOMAIN)

A one-page summary allows you to easily evaluate scores by domain and follow the recommended hierarchical interpretation guidelines.

PROTOCOL VALIDITY

Content Non-Responsiveness	0 CNS	53 VRIN-r	57 F TRIN-r			
Over-Reporting	56 F-r	51 Fp-r		74 Fs	64 FBS-r	46 RBS
Under-Reporting	62 L-r	59 K-r				

SUBSTANTIVE SCALES

Somatic/Cognitive Dysfunction	**72 RC1**	**75 MLS**	**72 GIC**	59 HPC	**80 NUC**	54 COG	
Emotional Dysfunction	59 EID	53 RCd	45 SUI	52 HLP	42 SFD	43 NFC	
		76 RC2	**70 INTR-r**				
		41 RC7	**65 STW**	44 AXY	39 ANP	43 BRF	59 MSF	53 NEGE-r
Thought Dysfunction	53 THD	43 RC6					
		52 RC8					
		52 PSYC-r					
Behavioral Dysfunction	48 BXD	52 RC4	50 JCP	50 SUB			
		38 RC9	37 AGG	44 ACT	35 AGGR-r	47 DISC-r	
Interpersonal Functioning		49 FML	41 RC3	**68 IPP**	**70 SAV**	**57 SHY**	44 DSF
Interests		39 AES	38 MEC				

Scores interpreted in the Spine-CIR are printed in bold.

Scale scores shown in bold font are interpreted in the report.

Note. This information is provided to facilitate interpretation following the recommended structure for MMPI-2-RF interpretation in Chapter 5 of the *MMPI-2-RF Manual for Administration, Scoring, and Interpretation*, which provides details in the text and an outline in Table 5-1.

This interpretive report is intended for use by a professional qualified to interpret the MMPI-2-RF in the context of a presurgical psychological evaluation of spinal cord stimulator candidates. The information it contains should be considered in the context of the patient's background, the circumstances of the assessment, and other available information.

Interpretive statements in the Comparison Group Findings section are based on comparisons with the women of the Spinal Cord Stimulator Candidate comparison group. Statements in the remaining sections of the report are based on T scores derived from the general MMPI-2-RF normative sample.

The report includes extensive annotation, which appears as superscripts following each statement in the narrative, keyed to Endnotes with accompanying Research References, which appear in the final two sections of the report. Additional information about the annotation features is provided in the headnotes to these sections and in the User's Guide for the Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF) Spine Surgery Candidate Interpretive Report (Spine-CIR) and Spinal Cord Stimulator Candidate Interpretive Report (Stim-CIR).

SYNOPSIS

Summary of the major conclusions about the interpretability of the results, any Substantive Scale scores in the clinically interpretable range, comparison group findings, and possible surgical risk factors.

This is a valid MMPI-2-RF protocol. Scores on the substantive scales indicate somatic complaints and emotional and interpersonal dysfunction. Somatic complaints include preoccupation with poor health, malaise, neurological symptoms, and gastrointestinal problems. Emotional-internalizing findings include depression and stress and worry. Interpersonal difficulties include passivity and social avoidance.

Comparison group findings point to possible concerns about a low level of positive emotions, stress and worry, and interpersonal problems including interpersonal passivity, social avoidance, and shyness.

Possible presurgical risk factors are identified in the Demoralization and Depression, Pain and Somatic Sensitivity, Health Orientation and Medical Adherence, Anxiety and Stress, Fear/Avoidance, and Interpersonal domains.

PROTOCOL VALIDITY

This is a valid MMPI-2-RF protocol. There are no problems with unscorable items. The patient responded to the items relevantly on the basis of their content, and there are no indications of over- or under-reporting.

SUBSTANTIVE SCALE INTERPRETATION

Clinical-level symptoms, personality characteristics, and behavioral tendencies of the patient are described in this section and organized according to an empirically guided framework. (Please see Chapter 8, Yossef S. Ben-Porath, Interpreting the MMPI-2-RF, *for details.) Statements containing the word "reports" are based on the item content of MMPI-2-RF scales, whereas statements that include the word "likely" are based on empirical correlates of scale scores. Specific sources for each statement can be accessed with the annotation features of this report.*

Somatic/Cognitive Dysfunction

The patient reports multiple somatic complaints[1] including vague neurological complaints[2] and a number of gastrointestinal complaints[3]. She is indeed likely to have a history of gastrointestinal problems[4]. She is also likely to be prone to developing physical symptoms in response to stress[5]. She reports experiencing poor health and feeling weak or tired[6]. She is indeed likely to be preoccupied with poor health[7] and to complain of sleep disturbance[8], fatigue[9], low energy[10], and sexual dysfunction[11].

Emotional Dysfunction

The patient reports a lack of positive emotional experiences, significant anhedonia, and lack of interest[12].

She is likely to be stress-reactive[13] and worry-prone[14] and to engage in obsessive rumination[15].

Thought Dysfunction

There are no indications of disordered thinking in this protocol.

Behavioral Dysfunction

There are no indications of maladaptive externalizing behavior in this protocol.

Interpersonal Functioning Scales

The patient reports being unassertive[16] and is indeed likely to be passive and submissive in interpersonal relationships[17]. She reports not enjoying social events and avoiding social situations[18]. She is likely to be introverted[19], to have difficulty forming close relationships[20], and to be emotionally restricted[21].

Interest Scales

The patient reports an average number of interests in activities or occupations of an aesthetic or literary nature (e.g., writing, music, the theater)[22]. She indicates no interest in activities or occupations of a mechanical or physical nature (e.g., fixing and building things, the outdoors, sports)[23].

Diagnostic possibilities, for further consideration, listed under four possible subheadings: Emotional-Internalizing, Thought, Behavioral-Externalizing, and Interpersonal disorders.

DIAGNOSTIC CONSIDERATIONS

This section provides recommendations for psychodiagnostic assessment based on the patient's MMPI-2-RF results. It is recommended that she be evaluated for the following:

Emotional-Internalizing Disorders

- Somatoform disorder[24], if physical origins for malaise[25], neurological complaints[26], and gastrointestinal complaints[27] have been ruled out
- Depression-related disorder[28]
- Disorders involving excessive stress and worry such as obsessive-compulsive disorder[29]

On-screen report viewing produces hover text, which identifies the scale scores that triggered the statements and indicates if it is based on item content, correlates, or inferences made by the report authors.

Interpersonal Disorders

- Disorders characterized by passive-submissive behavior such as dependent personality disorder[30]
- Disorders associated with social avoidance such as avoidant personality disorder[31]

SPINAL CORD STIMULATOR COMPARISON GROUP FINDINGS

This section describes the MMPI-2-RF substantive scale findings in the context of the women of the Spinal Cord Stimulator Candidate comparison group. Specific sources for each statement can be accessed with the annotation features of this report. ***Presurgical risk factors, postsurgical outcomes, and treatment recommendations associated with these results, if any, are provided in subsequent sections of this report.***

The comparison group means reported on pages 2 through 6 of this report show that female spinal cord stimulator candidates score differently from the general MMPI-2-RF normative sample on several scales. Problems discussed earlier in the Substantive Scale Interpretation section are based on clinically elevated normative T scores of 65 and above. Potential difficulties identified in this section are based on scores that are unusually high in relation to the Spinal Cord Stimulator Candidate (Women) comparison group, and thus may differ from those discussed earlier. If multiple risk factors are identified, the possibility of poor surgery results increases, but may be mitigated with psychological intervention.

Emotional/Internalizing Problems

The patient reports a comparatively low level of positive emotional experiences for a spinal cord stimulator implant candidate[12]. Only 9.2% of comparison group members convey this or a lower level of positive emotions[32].

She reports a comparatively high level of problems with stress and worry for a spinal cord stimulator implant candidate. Only 18.8% of comparison group members convey this or a greater level of stress reactivity[33].

Interpersonal Problems

The patient reports a comparatively high level of interpersonal passivity for a spinal cord stimulator implant candidate. Only 10.7% of comparison group members convey this or a greater level of passive,

Construct-based statements that describe implications of clinically elevated Substantive Scale scores, as well as statements about possible implications of uncommonly high (but not clinically elevated) scores for spinal cord stimulator candidates.

submissive behavior[16]. She also reports a relatively high level of social avoidance for this population. Only 13.7% of comparison group members convey this or a greater preference for avoiding social interaction[18]. In addition, she reports a comparatively high level of social anxiety for a spinal cord stimulator implant candidate. Only 16.1% of comparison group members convey this or a greater level of shyness and inhibition[34].

PRESURGICAL PSYCHOLOGICAL RISK FACTORS

Psychological risk factors associated empirically with diminished spinal cord implant results are described in this section and organized according to nine problem domains identified in the professional literature as relevant to spinal cord implant outcomes. (Please see User's Guide for the MMPI-2-RF Spine Surgery Candidate Interpretive Report (Spine-CIR) and Spinal Cord Stimulator Candidate Interpretive Report (Stim-CIR) *for details.) Specific sources for each statement can be accessed with the annotation features of this report.*

Demoralization and Depression Problems

Compared with other spinal cord stimulator implant candidates, the patient is more likely to be experiencing depressive affect[35] and to have a low energy level and feel exhausted[36]. She is also likely to have greater levels of self-perceived disability[37].

Pain and Somatic Sensitivity Problems

Compared with other spinal cord stimulator implant candidates, the patient is more likely to perceive herself as deserving and needing assistance from others[38]. She is also likely to report greater functional disability associated with pain[39].

Health Orientation and Medical Adherence Problems

Compared with other spinal cord stimulator implant candidates, the patient is less likely to seek out information about health[40], to feel confident in obtaining information from the physician[40], to be able to continue with exercise/diet recommendations when under stress[40], and to be engaged in overall health maintenance and improvement[40].

Anxiety and Stress Problems

Compared with other spinal cord stimulator implant candidates, the patient is more likely to be diagnosed with an anxiety disorder[41] and to be taking benzodiazepines[41]. She is also likely to report higher levels of anxiety[42] and to experience higher levels of current stress[41].

Fear/Avoidance Problems

Compared with other spinal cord stimulator implant candidates, the patient is likely to express higher levels of fear and avoidance of work activities[42]. She is also more likely to have been out of work for more than 2 months[38].

Identifies potential spinal cord stimulator risk factors annotated with empirical studies that support each correlate-based interpretive statement. The statements are organized by nine problem domains, representing the major psychological areas that have been found in the research literature to negatively impact the outcomes of spinal cord stimulation.

Interpersonal Problems

Compared with other spinal cord stimulator implant candidates, the patient is more likely to have had a chaotic or disrupted childhood[43], to report a history of abuse or abandonment[44], and to report a lack of social support[38].

The candidate's scores are not associated with empirically identified risk factors in the following domains:

- Pain Coping Problems
- Substance Abuse Problems
- Recovery Disincentive Problems

POSTSURGICAL OUTCOMES

Statements based on prospective studies of maladaptive postsurgical outcomes associated with presurgical MMPI-2-RF scores. In these studies, multiple outcomes were assessed, including pain reduction, functional improvement as measured by the ODI, return to work, opioid medication use, satisfaction with the procedure, and overall outcome.

The postsurgical outcome statements listed here are based on prospective empirical studies indicating that, relative to other candidates, this patient is at increased risk for these specific adverse results. Inclusion of an adverse outcome does not imply that it will definitely occur, nor can other negative outcomes be definitively ruled out. Specific sources for each statement can be accessed with the annotation features of this report.

Compared to other spinal cord stimulator candidates, post-surgery this patient is likely to:

- Report higher levels of pain[45]
- Report greater levels of disability[46]
- Experience more negative affect and higher levels of psychological distress[45]
- Report greater interference of pain with lifestyle[45]
- Have lower levels of satisfaction with the results of surgery[45]
- Convey stronger feelings that surgical results did not meet expectations[45]

TREATMENT RECOMMENDATIONS

This section contains inferential treatment-focused recommendations specifically for spinal cord stimulator candidates, based on the patient's MMPI-2-RF scores. Sources for each statement can be accessed with the annotation features of this report.

Recommendations Based on Elevated Emotional Dysfunction Scales

The patient may be experiencing depressive affect, which could impact spinal cord stimulator results. Consideration should be given to antidepressant medication, which may also help with pain reduction, as depression can increase pain awareness. Including individual psychotherapy in the overall treatment plan may help the patient identify and experience pleasurable activities while rehabilitating[47].

The patient is also experiencing a much higher level of stress/worry than other patients do, and is prone to both ruminate about disappointments and misfortunes and to feel a strong sense of time pressure to recover from the spinal pain problems. Recommended interventions include stress management training and strategies aimed at establishing and acting on priorities in the post-implant recovery process[48].

Recommendations Based on Elevated Interpersonal Functioning Scales

The patient is relatively passive and indecisive and experiences difficulties coping with stress. Taking a collaborative, problem-solving approach to treatment, and helping her identify and deal with setbacks in the recovery process, may mitigate the influence of such feelings of inefficacy on spinal cord stimulation outcome[30].

ITEM-LEVEL INFORMATION

Four types of item-level information are available with the Stim-CIR.

Unscorable Responses

The patient produced scorable responses to all the MMPI-2-RF items.

Critical Responses

Seven MMPI-2-RF scales--Suicidal/Death Ideation (SUI), Helplessness/Hopelessness (HLP), Anxiety (AXY), Ideas of Persecution (RC6), Aberrant Experiences (RC8), Substance Abuse (SUB), and Aggression (AGG)--have been designated by the test authors as having critical item content that may require immediate attention and follow-up. Items answered by the individual in the keyed direction (True or False) on a critical scale are listed below if her T score on that scale is 65 or higher.

The patient has not produced an elevated T score (≥ 65) on any of these scales.

Items for Follow-up

This section contains a list of items to which the patient responded in a manner warranting follow-up. The items were identified by presurgical assessment experts as having critical content. Clinicians are encouraged to follow up on these statements with the patient by making related inquiries, rather than reciting the item(s) verbatim. Each item is followed by the patient's response, the percentage of the Spinal Cord Stimulator Candidate (Women) comparison group members who gave this response, and the scale(s) on which the item appears.

25. Item Content Omitted (False; 86.6%; VRIN-r, EID, RC2, MLS)
49. Item Content Omitted (True; 6.5%; BXD, RC4, SUB, DISC-r)
65. Item Content Omitted (False; 20.4%; RC1)
156. Item Content Omitted (True; 43.6%; VRIN-r, FBS-r, RBS, BXD, RC4, DISC-r)

A group of 10 clinicians and researchers, highly experienced in presurgical psychological assessment of spinal cord stiumulator candidates, reviewed the 338-item MMPI-2-RF booklet and identified those items each felt were critical for follow-up. The responses of the reviewers were tabulated, and a pool of items on which at least four reviewers concurred was developed. The report authors then examined this list and selected only those items that bore a conceptual relationship with risk for poor surgical outcome.

ITEMS NOT SHOWN

Special Note:
The content of the test items is included in the actual reports. To protect the integrity of the test, the item content does not appear in this sample report.

ENDNOTES

Endnotes identify scale scores that are associated with and provide foundations for statements.

This section lists for each statement in the report the MMPI-2-RF score(s) that triggered it. In addition, each statement is identified as a Test Response, if based on item content, a Correlate, if based on empirical correlates, or an Inference, if based on the report authors' judgment. (This information can also be accessed on-screen by placing the cursor on a given statement.) For correlate-based statements, research references (Ref. No.) are provided, keyed to the consecutively numbered reference list following the endnotes.

[1] Test Response: RC1=72
[2] Test Response: NUC=80
[3] Test Response: GIC=72
[4] Correlate: GIC=72, Ref. 28, 35
[5] Correlate: RC1=72, Ref. 16, 35; NUC=80, Ref. 35
[6] Test Response: MLS=75
[7] Correlate: RC1=72, Ref. 6, 10, 14, 15, 16, 20, 28, 30, 31, 32, 35, 36; MLS=75, Ref. 6, 35; NUC=80, Ref. 10, 35
[8] Correlate: MLS=75, Ref. 34, 35
[9] Correlate: RC1=72, Ref. 5, 34, 35; MLS=75, Ref. 28, 34, 35
[10] Correlate: RC2=76, Ref. 3, 20, 35; MLS=75, Ref. 35
[11] Correlate: MLS=75, Ref. 35
[12] Test Response: RC2=76; INTR-r=70
[13] Correlate: STW=65, Ref. 10, 12, 35
[14] Correlate: STW=65, Ref. 35
[15] Correlate: STW=65, Ref. 2, 9, 35
[16] Test Response: IPP=68
[17] Correlate: IPP=68, Ref. 2, 4, 10, 18, 28, 35; AGGR-r=35, Ref. 35
[18] Test Response: SAV=70
[19] Correlate: SAV=70, Ref. 1, 2, 4, 13, 18, 35
[20] Correlate: SAV=70, Ref. 1, 11, 17, 18, 35
[21] Correlate: SAV=70, Ref. 35
[22] Test Response: AES=39
[23] Test Response: MEC=38
[24] Correlate: RC1=72, Ref. 22, 23, 37
[25] Correlate: MLS=75, Ref. 22
[26] Inference: NUC=80
[27] Correlate: GIC=72, Ref. 37
[28] Correlate: RC2=76, Ref. 19, 21, 27, 29, 33, 35, 37; INTR-r=70, Ref. 35
[29] Correlate: STW=65, Ref. 37
[30] Inference: IPP=68
[31] Correlate: SAV=70, Ref. 37
[32] Test Response: RC2=76
[33] Test Response: STW=65
[34] Test Response: SHY=57
[35] Correlate: RC2=76, Ref. 6, 27

[36] Correlate: RC2=76, Ref. 24
[37] Correlate: RC2=76, Ref. 6, 8, 25
[38] Correlate: RC2=76, Ref. 6
[39] Correlate: RC2=76, Ref. 34
[40] Correlate: RC2=76, Ref. 26
[41] Correlate: STW=65, Ref. 34
[42] Correlate: STW=65, Ref. 6
[43] Correlate: STW=65, Ref. 24
[44] Correlate: SAV=70, Ref. 24
[45] Correlate: STW=65, Ref. 7
[46] Correlate: RC2=76, Ref. 7; STW=65, Ref. 7
[47] Inference: RC2=76
[48] Inference: STW=65

RESEARCH REFERENCE LIST

Sources of statements based on empirical correlates. References are updated as additional studies are published.

The following studies are sources for empirical correlates identified in the Endnotes section of this report.

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End of Report

ITEM RESPONSES

1: 2	2: 2	3: 2	4: 2	5: 2	6: 2	7: 1	8: 1	9: 2	10: 2
11: 2	12: 2	13: 2	14: 2	15: 2	16: 1	17: 2	18: 1	19: 1	20: 2
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