

**ASSESSING SUBSTANCE
ABUSERS WITH THE MILLON
CLINICAL MULTIAXIAL
INVENTORY (MCMI)**

ABOUT THE AUTHOR

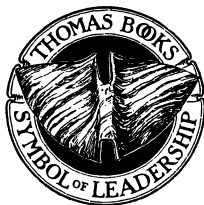
Robert J. Craig, Ph.D., ABPP, is the Director of the Drug Abuse Program at the Jesse Brown VA Medical Center, Chicago, and Adjunct Professor of Psychology at Roosevelt University. He is a Fellow in the American Psychological Association, Psychology of Addictions, and a Fellow in the Society for Personality Assessment, where he was the recipient of the Martin Mayman national award for “significant contributions to the literature of personality assessment.” He is a Diplomate both in Clinical Psychology and in Administrative Psychology and served as Consulting Editor to the *Journal of Personality Assessment* for 33 years. He continues to serve as an ad hoc editor to several professional journals in addiction and personality. He has over 100 publications in peer-reviewed journals and has published 11 books. This is his fourth book on the MCMI.

ASSESSING SUBSTANCE ABUSERS WITH THE MILLON CLINICAL MULTIAXIAL INVENTORY (MCMI)

By

ROBERT J. CRAIG, PH.D., ABPP

*Jesse Brown VA Medical Center
Chicago, Illinois*



CHARLES C THOMAS • PUBLISHER, LTD.
Springfield • Illinois • U.S.A.

Published and Distributed Throughout the World by

CHARLES C THOMAS • PUBLISHER, LTD.
2600 South First Street
Springfield, Illinois 62704

This book is protected by copyright. No part of it may be reproduced in any manner without written permission from the publisher. All rights reserved.

© 2005 by CHARLES C THOMAS • PUBLISHER, LTD.

ISBN 0-398-07591-3 (hard)
ISBN 0-398-07592-1 (paper)

Library of Congress Catalog Card Number: 2005043911

With THOMAS BOOKS careful attention is given to all details of manufacturing and design. It is the Publisher's desire to present books that are satisfactory as to their physical qualities and artistic possibilities and appropriate for their particular use. THOMAS BOOKS will be true to those laws of quality that assure a good name and good will.

*Printed in the United States of America
UB-R-3*

Library of Congress Cataloging-in-Publication Data

Craig, Robert J., 1941-

Assessing substance abusers with the Millon clinical multiaxial inventory (MCMI) / by Robert Craig.

p. cm.

Includes biographical references and indexes.

ISBN 0-398-07591-3 -- ISBN 0-398-07592-1 (pbk.)

1. Millon Clinical Multiaxial Inventory. 2. Substance abuse--Diagnosis. 3. Substance abuse--Patients--Rehabilitation. I. Title.

RC473.M47C728 2005
616.86'075--dc22

2005043911

PREFACE

The construct validity of a psychological test is assessed by what is referred to as a multitrait-multimethod nomothetic matrix (Campbell & Fiske, 1959). Essentially, this means that the psychometric properties of an assessment instrument are studied with a variety of populations and in a variety of settings and weighed against a variety of other measures that purportedly assess the same construct. This concept implies that a test might be useful with some kinds of populations but not with others. It implies that a test can have strong validity for one group but weak validity with another group. This is the idea behind this book. In order to add to the construct validity of the Millon Clinical Multiaxial Inventory (MCMI), evidence is presented on the psychometric properties of this test with both alcohol and drug abusers.

Substance abuse is endemic in our society and creates a number of difficulties for both the individual and society. Some of the costs associated with substance abuse are presented in Chapter I along with the extent of the problem. The need for early diagnosis and intervention is apparent. Unfortunately, accompanying a substance use disorder are denial and rationalizations as primary defense mechanisms designed to maintain the drinking and drugging. This means that simply asking a patient if he or she has a problem with alcohol or drugs is likely to evoke minimizations and outright lies in order to avoid detection and to maintain the behavior. Accordingly, many objective measures have been developed to address the substance abuser's denial of the problem.

Psychologists who develop omnibus personality inventories have felt obligated to include scales that assess alcohol and drug abusing tendencies. While some, such as the Inwald Personality Inventory or the Addiction Admission Scale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), simply ask the patient to report whether he or she has a problem with alcohol or drugs, most have scales that assess these disorders more indirectly. Such scales include the MacAndrews

Alcoholism Scale and the Addiction Potential scale from the MMPI-2, or the addiction scales from the Personality Assessment Inventory. Even personality tests in development, such as the Emotional Assessment Survey, currently under development by James Choca, Ph.D., and colleagues at Roosevelt University, Chicago, have scales that measure substance abuse.

The MCMI has two scales that assess alcohol abuse and drug abuse, both directly and indirectly. This is more fully explained in Chapters III and IV, along with the psychometric properties of these scales and ways they have been used to detect substance abuse and to assess substance abusers. In addition to these scales are code types or aggregate group profiles associated with having a substance abuse problem. If it can be shown that a common profile underlies these conditions, this will assist those who develop computer-interpretive narratives for test interpretation. And this will assist clinicians to better understand their clients, because a unique feature of the MCMI is Millon's theory that links a clinical syndrome with their underlying personality disorder.

Chapter II presents an overview of Millon's theory of personality and a description of the development and standardization of the MCMI. Chapter V integrates the research findings presented in Chapters III and IV and the chapter concludes with directions for future research. Researchers and clinicians interested in this area of mental health may want a more detailed description of any particular article that used the MCMI with alcoholics or drugs addicts. Therefore the concluding chapter of this volume presents an annotated bibliography of all studies conducted with substance abusers using the MCMI.

Throughout these chapters, in many places, I use the terms alcohol abuse, alcohol dependence, drug abuse, drug dependence, substance abuse, and problematic use interchangeably. Although official diagnostic criteria (i.e., DSM) makes a distinction between many of these terms, researchers have not always attended to the official nomenclature when phrasing their reports. However, in almost all cases, patients had manifestations of the disorder severe enough to require treatment, either inpatient or outpatient, and hence had met abuse if not dependence criteria. The exception to this is when I describe the population studied and tried to maintain the terminology used by the author(s).

CONTENTS

	<i>Page</i>
<i>Preface</i>	v
Chapter I. EPIDEMIOLOGY OF SUBSTANCE ABUSE	3
Sources of Data on Prevalence	3
Alcohol Sales	3
Population Surveys	3
Death Records	4
Drug Abuse Warning Network (DAWN)	4
Treatment Surveys	4
Arrestee Urinalysis	4
Drug Seizures	4
Ethnographic Research	4
National Household Survey	4
High School Senior Survey	4
Scope of the Problem	5
Hospital Visits	5
Alcohol: Extent of Use	6
Heroin: Extent of Use	6
Cocaine: Extent of Use	6
Marijuana: Extent of Use	7
Cost of the Problem	7
Chapter II. OVERVIEW OF THE MILLON CLINICAL MULTIAXIAL INVENTORY	11
Assessing Personality Disorders	12
Theory and Instrumentation	12
Bioevolutionary Theory	13
Chapter III. ASSESSING DRUG ABUSERS WITH THE MCMI ..	21
Drug Abuse Scale (T)	22

Reliability	22
Internal Consistency	22
Test-Retest	22
Factors	25
Validity	26
Content	26
Concurrent	27
Drug Abuse Scale	27
Detection Rates	27
Fakeability	28
Convergent Validity	29
Diagnostic Power	30
Prevalence Rates	32
Code Types	35
Cluster Analysis	52
Convergent Validity	54
Depression	54
Post-Traumatic Stress Disorder (PTSD)	55
Predictive Validity	57
Group Differences	59
MCMII–II v. MCMII–III	61
Changes with Treatment	61
Summary	63
Chapter IV. ASSESSING ALCOHOLICS WITH THE MCMII	65
Alcohol Abuse Scale (B)	65
Reliability	65
Internal Consistency	66
Test-Retest	66
Factors	67
Validity	68
Content	68
Concurrent	68
Alcohol Abuse (Scale B)	68
Detection Rates	68
Fakeability	69
Concurrent Validity	70
Diagnostic Power	71
Prevalence Rates	72
Code Types	72

Cluster Analysis	87
Within Normal Limits	87
Sub-Clinical Profile	87
A One-Point Code	87
A Two-Point Code	87
High-Ranging Codes	88
Depression	91
Depressed v. Non-Depressed	92
Transient v. Enduring Depression	92
Predictive Validity	92
Continuous Drinkers v. Episodic Drinkers	93
High v. Low Functioning	93
Group Differences	94
Personality Styles	94
Changes with Treatment	95
Polydrug Abuser Code Types	95
Summary	96
Chapter V. SUMMARY AND CONCLUSIONS	100
Development of Scales B and T	100
Content	101
Reliability	102
Internal Consistency	102
Test-Retest	102
Factor Structure	103
Validity	103
Content	103
Concurrent	104
Convergent	105
Predictive	106
Future Directions	107
Comparability between Versions of the MCMI	109
Chapter VI. AN ANNOTATED BIBLIOGRAPHY ON THE USE OF MCMI WITH SUBSTANCE ABUSERS	111
<i>References</i>	133
<i>Author Index</i>	143
<i>Subject Index</i>	147

LIST OF FIGURES

	<i>Page</i>
Figure 1.1. Total Costs of Drug Abuse in Billions of Dollars	8
Figure 1.2. Health Care Costs Associated with Drug Abuse in Billions of Dollars	9
Figure 3.1A. Modal Code Type for Drug Abusers	47
Figure 3.1B. Modal Clinical Syndrome Patterns for Drug Addicts	47
Figure 3.2A. Modal MCMI Code Type for Female Drug Addicts	48
Figure 3.2B. Modal Clinical Syndrome Scales for Female Drug Addicts	48
Figure 3.3A. Modal MCMI Profile for Heroin Addicts and Cocaine Abusers	49
Figure 3.3B. Modal MCMI Clinical Syndrome Scales for Heroin Addicts and Cocaine Abusers	49
Figure 3.4A. MCMI Modal Code Type for Program Completers and Dropouts Among Drug Abusers	51
Figure 3.4B. MCMI Modal Clinical Syndrome Scales for Program Completers and Dropouts among Drug Abusers	51
Figure 4.1A. Modal MCMI Personality Disorder Code Type of Alcoholics	84
Figure 4.1B. Modal Clinical Syndrome Patterns for Alcoholics	84
Figure 4.2A. Modal MCMI Personality Disorder Code Type for Female Alcoholics	85
Figure 4.2B. Modal MCMI Clinical Syndrome Scales for Female Alcoholics	85
Figure 4.3A. Modal MCMI Personality Disorder Codes for Alcoholics with Depression	86
Figure 4.3B. Modal MCMI Code Type for the Clinical Syndrome Scales for Alcoholic Women	86

LIST OF TABLES

	<i>Page</i>
Table 2.1. Millon's Theoretical Classification of Personality Styles	14
Table 2.2 Personality Disorders According to Millon's Bioevolutionary Theory	14
Table 2.3 Depiction of Personality Styles of Personality Disorders in the Bioevolutionary Model of Personality Classification	15
Table 3.1. Stability/Reliability of Scale T	24
Table 3.2. Summary of MCMI Studies with Drug Addicts	30
Table 3.3. Diagnostic Power of Scale T	32
Table 3.4. MCMI Scale T BR Scores for Drug Abusers	36
Table 3.5. Summary of MCMI Studies with Drug Addicts	46
Table 4.1. Reliability/Stability Estimates for MCMI Alcohol Abuse Scale (B)	67
Table 4.2. Correspondence of Scale B with Similar Measures	71
Table 4.3. Diagnostic Power of Scale B	73
Table 4.4. MCMI BR Scores for Alcohol Abusers	74
Table 4.5. Summary of BR Scores for Alcoholics	83
Table 4.6. MCMI BR Scores for Combined Mixed Groups of Alcohol and Drug Abusers	96
Table 4.7. Summary of BR Scores for Combined Mixed Groups of Alcohol and Drug Abusers	97

**ASSESSING SUBSTANCE
ABUSERS WITH THE MILLON
CLINICAL MULTIAXIAL
INVENTORY (MCMI)**

Chapter I

EPIDEMIOLOGY OF SUBSTANCE ABUSE

Sources of Data on Prevalence

Epidemiology may be defined as the study of the incidence and prevalence of disease. Prevalence refers to the total number of cases in a defined period of time. The timeframe that is most often used is one year, but other timeframes are also reported in the literature, depending on the disease and the reason for or the purpose for which the report will be used. *Incidence* is the total number of new cases in a given time period. So, for example, the prevalence of heroin addiction is the sum of the prevalence of heroin addiction last year plus the incidence of heroin addiction for this year.

The government relies on a number of sources to determine the incidence and prevalence of substance abuse in the United States. After compiling this data (which is often delayed), we get a picture of the scope and severity of the problem; by comparing this data over time, we get a picture of trends of problematic substance use and abuse in our nation.

The following sources are the ones more commonly used for these purposes:

- ***Alcohol Sales:*** This is determined from the sale tax on alcohol products and gives a picture of the types (beer, wine, spirits) and amount of use over a given period of time. This variable is also useful in determining the effects of increased taxation on alcohol consumption.
- ***Population Surveys:*** These are a very common source of epidemiological information in the substance abuse field. Respondents are asked about their use patterns for various classifications of licit and illicit drugs. Of course, this method relies on the truthfulness of the respondent. The method also fails to capture abusers in jails,

hospitals, homeless shelters, and those who live on the street without permanent addresses. These surveys also tend to be costly and to underestimate the extent and severity of actual use for the reasons listed above.

- **Death Records:** Data is collected on alcohol-related mortality from three major sources: (1) death certificates that list alcohol as a contributing factor, (2) deaths from diseases associated with alcohol, and (3) fatal traffic accidents where a blood alcohol level has been obtained.
- **Drug Abuse Warning Network (DAWN):** This project tallies data from emergency rooms in twenty metropolitan cities. A form is sent in to the government by ER personnel whenever the visit is prompted by alcohol and drug abuse.
- **Treatment Surveys:** Most programs are required to fill out an annual report on the number of admissions and discharges along with primary drug of abuse, as well as multiple other kinds of data. This variable then taps abusers in treatment settings.
- **Arrestee Urinalysis:** This data emanates from police districts which test arrestee urine following the commission of a crime. The data is affected by police operations which periodically put more or less emphasis on drug-related crime based on local needs.
- **Drug Seizures:** When drugs are seized by local or federal officials, they are analyzed for purity levels. Costs on the street for these drugs are often publicized in the larger drug seizures. The analyses tell us the amount or availability of drugs within a community.
- **Ethnographic Research:** A variety of organizations and institutions collect data that are unique to a local community. These are then published in discipline-specific journals.
- **National Household Survey:** This telephone survey is taken annually and assesses those whose substance abuse primarily pertains to prescription drug abuse. This is often considered a hidden population and most often addresses prescription practices (and caused by?) of primary care physicians.
- **High School Senior Survey:** This is a largest data collection of its kind and has been conducted since 1975. Called "Monitoring the Future," researchers at the University of Michigan sample drug use patterns and prevalence among high school seniors, in sample sizes that are around 45,000 each year. It samples both attitudes towards and actual reported usage of a broad category of alcohol and drug use among eighth, tenth, and twelfth graders. While this survey misses

a key cohort of abuse—the school dropout—nevertheless it provides us with an excellent picture of attitudes and patterns of use during key developmental years.

For a more thorough presentation and discussion of this data, the reader is referred to various textbooks on substance abuse (Craig, 2004) and to government websites, especially those of the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse. Here we highlight only some of the prevalence data from some of the sources cited above. We look at the scope, severity, and costs of the substance abuse problem in the United States. The data clearly demonstrate that alcohol and drug abuse are serious problems, which require good assessment tools and adequate treatment for those in need.

Scope of the Problem

In the last “Monitoring the Future” data presentation, lifetime use of any illicit drugs in the past thirty days among teenagers was estimated to be 17%, for the past year prevalence was 28%, and lifetime use of any illicit drugs was 37%. For alcohol, 55% reported using alcohol during the past year and 33% reported using alcohol within the past 30 days (Monitoring the Future, 2003).

Hospital Visits

The most recent data on drug abuse related to hospital emergency room (ER) visits are from the Drug Abuse Warning Network (DAWN) for the year 2000. Alcohol in combination with other drugs was the most frequently mentioned drug at the time of admission to the ER (204,524), followed by cocaine (174,896), heroin/morphine (97,287), and marijuana (97,287). The most frequently cited motives for taking substances that precipitated the visit to the ER were dependence (36%), suicide (193,061 or 20%), and overdose (264,240 or 44%). Among inmates in federal prison, 67% are there for alcohol or drug-related offenses (www.samhsa.gov/statistics/statistics.html). Consider also the number of drunk drivers involved in fatal crashes (where often the victim dies, but the drunk driver survives), the amount of marital discord and domestic violence and other crimes related to substance abuse, the number of alcohol- and drug-related medical problems associated with substance abuse and dependence and the costs associated