

# Competency to Stand Trial: Description and Initial Evaluation of a New Computer-Assisted Assessment Tool (CADCOMP)

George W. Barnard, MD; John W. Thompson, Jr., MD;  
William C. Freeman, MD, JD; Lynn Robbins; Dennis Gies, MA; and  
Gary C. Hankins, MD

The authors describe a Computer-Assisted Determination of Competency to Proceed (CADCOMP), a new instrument that collects data directly from the defendant through an interactive computer program and renders a report covering relevant historical, psychopathological, and legal information. The comprehensive report could be utilized by the clinician to focus the clinician's interview with the defendant on areas requiring further probing, thus reducing the time required to assess competency. Preliminary reliability and validity assessment studies are reported. The results support the predictive validity of CADCOMP used as a screening instrument and found the CADCOMP to be sufficiently reliable to be used for screening purposes.

Competency to stand trial, or competency to proceed, is a legal rather than a medical concept.<sup>1</sup> This is an ancient legal doctrine with roots in eighteenth century cases in England and in the 1899 case of *Youtsey v. United States*.<sup>2</sup> The fourfold rationale for this doctrine is to safeguard the accuracy of adjudication, ensure the fairness of the adversarial process, maintain the dignity of the

court, and, if the defendant is found guilty, guarantee he knows why he is being punished.<sup>3</sup> The modern formulation of the competency construct is based on the 1960 case of *Dusky v. United States*<sup>4</sup> wherein the court defined competency in broad terms:

Whether the defendant has sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding and whether he has a rational as well as a factual understanding of the proceedings against him.

The focus is on the defendant's present mental abilities as they relate to his function in an anticipated pending trial. While there has been some effort by the court, as in *Wieter v. Settle*, to delineate

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Dr. Barnard and Lynn Robbins are affiliated with the University of Florida, Gainesville, FL 32610. Drs. Thompson and Freeman were 1989-90 forensic fellows at the University of Florida. Dennis Gies is administrator, North Florida Evaluation and Treatment Center, Gainesville, Florida. This article is a revised version of a paper presented at the 21st Annual Meeting of the American Academy of Psychiatry and the Law, San Diego, California, October 25-28, 1990.

further the criteria of competency, the general thrust of the court has been to decide the issue on a case-by-case basis.<sup>5</sup> This case-by-case approach is consistent with current theory which views competency as a construct not reducible to a finite set of observables,<sup>6-9</sup> and it is consistent with the approach taken in the ABA's *Mental Health Standards*.<sup>10</sup>

The involvement of mental health professionals in resolving competency questions is mandated by statutory law.<sup>11</sup> All sources cite competency to stand trial as the most common reason for referral of defendants for mental health assessment. Although reports of recent surveys are lacking in the literature, a 1982 report estimated that there were about 25,000 such evaluations per year.<sup>12</sup> Drob *et al.*<sup>13</sup> have clarified that a finding of incompetence requires three separate types of data and three distinct judgments; clinical data establishing the presence of a diagnosable mental illness, functional data establishing impairment in one or more legal abilities, and causal data establishing that the legal impairment is the direct result of the mental illness. Failure to find either mental illness, legal impairment, or causality would result in finding a particular defendant competent to stand trial. Considering the nature of the data required and the complexity of the judgments involved, it is not surprising that the courts have leaned so heavily on the mental health professions for assistance. Indeed, in at least 90 percent of cases, the opinion of the mental health professional is unchallenged by the court.<sup>14-17</sup>

Recently, this privileged status of

mental health professionals has been seriously challenged by a number of writers who have questioned the fundamental validity of such judgments.<sup>18-22</sup> This challenge must be added to criticisms dating from the earliest research reports documenting several notable weaknesses in the assessments and reports provided to the courts.<sup>23-27</sup> Among the most crucial are problems with confusion of competency to stand trial with criminal responsibility, the equation of incompetence with mental illness, inadequately detailed reports, poorly documented reports, and disorganized, incomprehensible reports. From the perspective of the courts, a chronic problem with evaluations has been the lack of reasoning in support of the conclusions. Typically the court is given little insight into the thinking of the expert in regard to how the defendant's thought disorders, delusional processes, unmanageable behaviors, affective disturbances, disturbances of memory and consciousness, impairments of intellectual functioning, general impairments of judgment, and disturbances of communication relate to the legal criteria. Considering the impact of the competency determination in the life of the defendant and the potential consequences for society, these criticisms demand serious attention.

Lanyon<sup>28</sup> has expressed the view that psychology and psychiatry do have the technical basis for making important contributions in court-related assessment situations. At least partly in response to charges of irrelevancy, invalidity, and incomprehensibility, investigators have developed instruments that are

specifically designed to define the key data elements needed for the competency determination.<sup>29</sup> These efforts in varying degrees have attempted to bring a structure, standardization, and quantification into the assessment process.<sup>8</sup> Robey<sup>27</sup> developed a checklist but it has never been systematically studied. Bukatman, Foy, and de Grazia<sup>30</sup> developed a checklist and interview questions. Lawrence<sup>31</sup> developed a schedule for 250 questions in 15 topical categories. McGarry and his colleagues produced two instruments—the Competency Screening Test (CST)<sup>32</sup> and the Competency Assessment Instrument (CAI).<sup>33</sup> Wildman *et al.* developed the Georgia Court Competency Test (GCCT), which incorporates a drawing of a typical courtroom layout.<sup>29, 34</sup> A modification of the GCCT, the GCCT-MSH, has been studied by Nicholson *et al.*<sup>29</sup> Schreiber *et al.*<sup>35</sup> produced the Interdisciplinary Fitness Interview (IFI), which emphasizes the importance of integrating clinical data with functional legal data. Although published assessment research on these instruments is limited, the strength and weaknesses of each of these efforts are beginning to be clarified.<sup>16, 29, 35</sup>

Because of previous experience in developing and using the Computer Assisted PsychoSocial Assessment (CAPSA-II),<sup>36</sup> an interactive program that produces a comprehensive psychosocial history on the patient, we were oriented toward the feasibility of developing a competency assessment instrument (CADCOMP), using interactive computer techniques to collect data

from the defendant and produce a preliminary competency evaluation report. In the design of this instrument, an attempt was made to address many of the criticisms of competency evaluations and reports noted above. In this article CADCOMP is described, and initial efforts to assess the reliability and validity of the instrument are presented.

### **Background, Objectives, and Description of CADCOMP**

The objectives in developing the Computer-Assisted Determination of Competency to Proceed (CADCOMP) were threefold: (1) To produce a competency screening instrument that would collect relevant data directly from a defendant and organize it into a concise narrative report. It was hoped that a mental health clinician would then be able to render a meaningful preliminary competency judgment based solely on the reading of this report. (2) To provide mental health clinicians who are examining defendants in the community with relevant historical, psychopathological, and legal information obtained from the defendant that would decrease the time they would be required to spend with the defendant and enhance their ability to render a well-reasoned opinion on competency to stand trial. A comprehensive report would be produced that would be available for review by the clinician prior to seeing the defendant so that he/she could probe the defendant in areas that require further professional consideration. A reviewed version of this computer generated report containing data thus validated in face-to-face inter-

view would become the final report submitted to the court. (3) To provide the forensic mental health treatment teams who are responsible for hospitalized defendants adjudicated by the court as incompetent with an assessment instrument of competency that is sensitive to changes occurring in the defendant's functional status while in the therapeutic milieu. Periodic assessment of the defendant with the CADCOMP could mark his progress, thereby facilitating early discharge and saving of state dollars.

The research reported here addresses only the performance of CADCOMP in relationship to the first objective dealing with the screening function; i.e., how reliable and valid are competency judgments based solely on the reading of the CADCOMP narrative report?

Although there were many obvious differences between a face-to-face psychiatric interview and a computer-assisted assessment, the strategy has been to have the computer simulate the approach used by the senior author in his clinical assessment of a defendant's competency to stand trial. Using the computer in an interactive mode with the defendant, the computer program would obtain from the defendant his personal history, medical history, psychiatric history, legal history, assess his legal abilities, perform a mental status examination, and integrate these data with the state's criteria for competency. Also, using the data obtained from the defendant, the computer program would make recommendations regarding additional diagnostic procedures and var-

ious therapeutic and/or educational approaches that may be considered. This last feature was included to increase the clinical relevance and usefulness of the instrument in forensic treatment facilities.

This project was conducted at the North Florida Evaluation and Treatment Center (NFETC), a 210-bed forensic facility in Gainesville, Florida, operated by the Department of Health and Rehabilitative Services (HRS). Residents/patients are sent to this facility after they have been adjudicated by the court as being incompetent to proceed (ITP) or as being found not guilty by reason of insanity (NGRI). Subjects for this project were defendants who had been adjudicated as ITP, excluding those judged NGRI.

The defendant's primary therapist was instructed to send the defendant to the assessment laboratory for testing as soon after admission as was feasible. When the defendant arrived at the laboratory, the technician explained the purpose of the evaluation, obtained his informed consent to participate, administered a Wide Range Achievement Test (WRAT) to determine a reading level, and oriented him to the computer. The technician remained available in the room during the time the defendant was taking CADCOMP to answer questions about procedure or to clarify questions. If the defendant was unable to read, the technician read the CADCOMP questions aloud to him. CADCOMP was administered to all defendants on the same IBM-XT computer. The standard keyboard was simplified in the following

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manner: (1) Special key covers were used to relabel selected keys with the words "TRUE," "FALSE," "YES," "NO," "FORWARD," and "BACKWARD." (2) The number and arrow keys were left unaltered. (3) All other keys were blanked out. This arrangement allowed the defendant to input answers directly to the computer in response to questions displayed on the monitor and to move through the schedule of questions in either direction to review and change answers as required. CADCOMP contains 272 questions that are answered primarily with yes/no, true/false, or multiple choice responses. The testing process typically took most defendants 1 to 1.5 hours to complete. The CADCOMP program obtains information in the following content areas listed in the order in which they appear in the CADCOMP preliminary narrative report:

*Identifying information.* Defendant's name, ID number, sex, age, race, marital status, and date of CADCOMP administration.

*Legal charges.* Defendant's report of the date of arrest for current charges, the current charges reported by the defendant, and the current charges as recorded in the clinical record (entered by technician before testing begins).

*Defendant's account of the alleged crime.* This section records some important elements of the defendant's memory. It reflects the defendant's report of his recall of his behavior and events of the alleged crime. The defendant reports what he did after the crime, whether the police read him his *Miranda* rights, if he understood his right to remain silent,

and whether he gave a confession. In this section the defendant reports if he used any alcohol and/or drugs on the day of the alleged crime that may have influenced his perceptions or behavior. He is also queried about experiencing auditory/visual hallucinations or if he was experiencing mind control on that day.

*Adjustment since arrest.* Documents what the defendant reports about his level of conflict with others, suicidal thoughts/attempts, homicidal thoughts/attempts, and current use of alcohol, drugs, or medications that might impact test-taking abilities.

*Previous criminal record.* Number of times arrested and number of convictions.

*Personal history.* Defendant's date of birth and limited information regarding his education, employment, and marital history.

*Psychiatric history.* Defendant's past history of mental illness and family history of mental illness. Defendant's past diagnoses, past inpatient and outpatient psychiatric treatment, previous suicide attempts, and history of hallucinations.

*Alcohol and drug history.* Defendant's account of his alcohol and street drug use, medical consequences of substance abuse, behavioral and social consequences of substance abuse, and legal consequences of substance abuse.

*Medical history.* Serious medical illnesses or injuries reported by the defendant are documented with emphasis on head injuries, periods of unconsciousness, and history of seizures, strokes, or brain surgery.

*Mental Status Examination.*

Orientation: year, month, day of the month, and day of the week.

Intelligence and fund of knowledge: On the basis of the defendant's performance on the Rapid Approximation Intelligence Test (RAIT) and other mental status factors, a clinical estimate of his intelligence is given. The defendant's general fund of information is checked by inquiring about the location of the capitals of Florida and the United States and the identity of the Governor of Florida and the President of the United States.

Memory: Documents the defendant's remote memory by his ability to correctly select past presidents from a multiple choice list, immediate memory by his recall of four words straightaway following their presentation, and recent memory by his recall of the same four words after five minutes.

Neuropsychological functioning: Records defendant's performance on digital recall, serial subtractions, selection of meaningful words, ability to follow instructions, and proper tracking of right-left visual stimuli.

Thought disorders: Summarizes responses indicating thought confusion, thought racing, thought retardation, thought insertion, delusions of grandeur, and delusions of persecution.

Hallucinations: Current auditory or visual hallucinations and receiving direct orders from God about what to do in regard to his case.

Ability to abstract: From a multiple choice list the defendant's capacity to abstract by testing his ability to interpret

proverbs and similarities was determined.

Mood: Defendant's self-report concerning feelings of anxiety and depression as well as current suicidal and homicidal ideas.

*Summary of psychopathological processes.* Summarizes significant and relevant historical features and major findings from the mental status examination that reflect on the defendant's psychopathology. No new data are presented; the reader is reminded of key findings and related issues.

*Discussion Integrating Data Base with Florida Statutes Concerning ITP.* Integrates the historical and mental status data with the defendant's understanding of the legal system and relevant behavioral responses according to Florida's statute concerning criteria for ITP. Specifically analyzes the data as they relate to seven areas from McGarry's Competency Assessment Instrument.

1. Defendant's capacity to appreciate the charges or allegations against him.

2. Defendant's capacity to appreciate the range and nature of possible penalties that may be imposed in proceedings against him.

3. Defendant's capacity to understand the adversary nature of the legal process.

4. Defendant's capacity to disclose to attorney facts pertinent to the proceedings at issue.

5. Defendant's capacity to manifest appropriate courtroom behavior.

6. Defendant's capacity to testify relevantly.

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7. Defendant's capacity to cope with the stress of incarcerations prior to trial.

*Recommendations.* Calls the reader's attention to problems or potential problems that have emerged relative to diagnostic or therapeutic issues including the need for collateral data to document crucial elements of the data base.

*Review and opinions by qualified forensic mental health clinician.* Presents caveats that CADCOMP is unable to detect certain types of psychopathology such as loosening of associations or isolated delusions that may affect the defendant's competency status. The NFETC primary therapist is invited to comment on the instrument's findings and to give his/her opinion, with rationale, concerning the defendant's competency status.

### **Preliminary Reliability and Validity Assessment of CADCOMP**

In this research the reliability and validity of CADCOMP as a screening instrument was investigated; i.e., the interobserver agreement obtained when two raters independently made competency judgments based on a reading of the CADCOMP narrative report alone and the degree to which such judgments predicted independent competency judgments on the same defendants based on clinical interviews by a variety of observers as detailed below was examined. Reliability deals with the precision of repeated measurements produced by an instrument. Reliability may be assessed by examining measurement stability over time (test-retest), within the test (split-half), between different versions of

the instrument (alternate forms) or, as in the current research, between observers (interobserver agreement). Interobserver agreement was chosen because this measure is most relevant to the manner in which CADCOMP may be used clinically. Assessing the validity of CADCOMP as a screening instrument was deemed most useful at this early stage of instrument development in order to isolate the contribution of CADCOMP taken alone to variation in the competency judgment.

Because of constraints of time and resources available to the project, it was necessary to involve the same individual (GWB) in the measurement of both the independent variable (determination of competency based solely on the reading of the CADCOMP report) and the dependent variable (criterion competency judgment based on a psychiatric interview). Since this individual was also the principal designer of CADCOMP, a question of measurement bias is raised. To address this issue, the psychiatric interview was videotaped, and competency determinations based only on the videotape were made independently by other mental health professionals who had no knowledge of the content of the CADCOMP report.

### **Methods**

Prior to any direct or indirect contact with the defendant, two of us (GWB and LR) independently completed the Interdisciplinary Fitness Inventory (IFI) form and made a determination of competency to proceed based on the reading of the CADCOMP report alone. The IFI

form calls for decisions on the presence or absence of various categories of psychopathology and impairment in several categories of legal functions.<sup>35</sup> Subsequently, within a two-week period of the defendant's taking the CADCOMP, a videotaped psychiatric interview was performed by GWB in the presence of LR. Based only on the interview, each made an independent determination of competency. The clinical judgment of the senior forensic psychiatrist (GWB) based on this interview was used as one criterion for assessing the predictive validity of CADCOMP as a screening instrument (criterion judgment). To address the issue of measurement bias and criterion contamination, two forensic fellows (JT and WF) and the director of NFETC, a master's level psychologist (DG), viewed the videotapes, independently completed the IFI form, and made a determination of competency for each defendant. Using a majority rule, the competency of all defendants was determined based on this independent, uncontaminated judgment (independent judgment).

Several types of statistical analyses were used in the research: descriptive statistics to characterize the study sample, percent agreement, Kappa, Phi, and Fisher's exact test. The Kappa<sup>37</sup> was used to evaluate interobserver agreement because the percent agreement statistic does not correct for the amount of agreement expected by chance. Percent agreement was used for the purpose of the comparison of results with the work of other investigators who have used this statistic exclusively. Phi and Fisher's ex-

act test were used to evaluate the power of the independent variable (CADCOMP report based judgment) to predict the criterion and independent judgments.

#### *Sample selection and demographics*

Subjects for this project were 50 male defendants who had been ordered to NFETC as ITP. In this initial study subjects were accepted for testing at the request of the primary therapist in addition to those subjects newly admitted to the institution. The median number of days between admission and time of testing was 77.5. All raters were blind to length of stay at the time of their ratings. Table 1 shows the distribution of selected demographic variables for the

**Table 1**  
**Demographic Characteristics of Residents**  
**(N = 50)**

	n	Percent
Age		
Under 25	7	14.0
25-29	12	24.0
30-39	18	36.0
40-49	10	20.0
50 and over	3	6.0
Race		
White	17	34.0
Black	29	58.0
Other	4	8.0
Marital Status		
Married	3	6.0
Separated	4	8.0
Divorced	8	16.0
Never married	35	70.0
Education		
8th grade or less	10	20.0
Some high school	19	38.0
High school grad	12	24.0
Some college	8	16.0
Post graduate	1	2.0
Employed at time of alleged crime?		
Yes	15	30.0
No	35	70.0



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sample. As will be noted, this all male group had a mean age of  $35.12 \pm 13$  years. Most defendants were nonwhite, never married, had less than a high school education, and were unemployed at the time of the current arrest.

### Results

Table 2 shows the interobserver agreement for the competency determinations by the two independent observers (GWB and LR) based on a reading of the CADCOMP report alone. As shown, there was agreement on 44 of 50 cases (percent agreement = 88%, Kappa = .71). Each judge had rated three defendants competent that the other had seen as incompetent. This is a high level of interobserver agreement.

Turning to the issue of validity, in Table 3 we see the agreement between the two independent judges rating competency based on a reading of the CADCOMP report alone and the criterion judgment based on the psychiatric interview. The criterion judgment suggested that the base rate of incompetence in the sample was around 22 percent (11 of 50 defendants). This seemed reasonable since the subjects had been in intensive residential treatment aimed at restoring their competence for an average of five

months. As can be seen, the senior forensic psychiatrist's CADCOMP report rating and the same psychiatrist's subsequent interview-based rating (criterion) achieved a percent agreement of 88 percent ( $\Phi = .706$ , two-tailed Fisher's exact test  $< .001$ ). The criterion judgment had determined five subjects to be competent who had appeared to be incompetent based on the CADCOMP report alone while one was viewed as incompetent who had been rated competent on the CADCOMP report reading. This last subject had an isolated delusion not picked up by the computer that affected his competency. The psychiatric researcher, who had a percent agreement of 84 percent ( $\Phi = .601$ , two-tailed Fisher's exact test  $< .001$ ) with the criterion rating, also rated more individuals as being incompetent based on the CADCOMP report alone. This line of analysis clearly supports the validity of CADCOMP as a screening instrument from two perspectives: (1) The level of prediction is high overall and unlikely due to chance. (2) Eleven of the 14 judgment errors that did occur were false positives. This latter result suggests that the sensitivity of CADCOMP as a screening instrument is relatively high and is greater than its spec-

**Table 2**  
Interrater Agreement Based on Reading CADCOMP Report Alone

	Psychiatrist (CADCOMP Report)			Percent Agreement
	Competent	Incompetent	Kappa	
Psychiatric researcher (CADCOMP report)				
Competent	32	3		
Incompetent	3	12	.71	88.0

**Table 3**  
**Validity Estimate of CADCOMP: Agreement Between Competency Judgment Based on CADCOMP Report and the Criterion Judgment**

Rating Based on CADCOMP reading	Criterion Judgment (Psychiatrist's Rating from Interview)		
	Competent	Incompetent	Percent Agreement
Psychiatrist			
Competent	34	1	
Incompetent	5	10	88.0
	Phi coefficient .706; Fisher's two-tailed exact test $p < .001$		
Researcher			
Competent	33	2	
Incompetent	6	9	84.0
	Phi coefficient .601; Fisher's two-tailed exact test $p < .001$		

ificity, a pattern of errors compatible with a screening function.

Turning now to the problem of criterion contamination, Table 4 shows that distribution of classification agreement when the two judge's ratings based on reading of the CADCOMP report alone were compared with the independent judgment. The independent rating suggested a base rate of incompetence in the sample of 24 percent (12 of 50). The pattern of errors for both raters were identical (although on different subjects)

by this measure, producing a percent agreement of 82 percent (Phi = .552, two-tailed Fisher's exact test  $< .001$ ). Of 18 misjudgments overall, 12 were false positives and six were false negatives. This pattern of results will be noted to be very similar to that shown above although the level of agreement is somewhat less. This result supports the predictive validity of CADCOMP used as a screening instrument.

### Discussion

Regarding reliability, the results of the current investigation have produced an

**Table 4**  
**Validity Estimate of CADCOMP: Agreement Between Competency Judgment Based on CADCOMP Report and the Independent Judgment**

Rating Based on CADCOMP reading	Independent Judgment (Ratings from Videotaped Interview)		
	Competent	Incompetent	Percent Agreement
Psychiatrist			
Competent	32	3	
Incompetent	6	9	82.0
	Phi coefficient .552; Fisher's two-tailed exact test $p < .001$		
Researcher			
Competent	32	3	
Incompetent	6	9	82.0
	Phi coefficient .552; Fisher's two-tailed exact test $p < .001$		

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estimate of a level of interobserver agreement for CADCOMP as a screening instrument of 88 percent ( $Kappa = .71$ ). The approach to this question in the current research was identical to that used by Roesch in his assessment of the CAI as a screening instrument with the exception that in the Roesch study global ratings were based on CAI guided interviews as opposed to computer generated narrative reports.<sup>38</sup> In that study the percentage of interobserver agreement in global competency judgments between rater pairs was reported to range from 69 to 97 percent with a median of 81 percent. Considering the fact that the CADCOMP judgments were based solely on computer-assisted data collection and a computer-generated narrative report while the CAI employed a face-to-face interview, CADCOMP's performance compares favorably with the CAI on this measure. It can be concluded from this result that used in the manner described, CADCOMP is sufficiently reliable to be used for screening purposes.

Regarding validity, for judgments based on the reading of the CADCOMP report alone, the percentage agreement averaged 86 percent over two independent judges when the criterion judgment was the standard of comparison. Using the judgment of independent raters as the standard, thus controlling for measurement bias, the average level of agreement for the two judges was 82 percent. These results compare favorably with the results of validity research previously reported on other competency instruments. Using percentage of agreement

with criterion as the measure of predictive validity, the CST research produced estimates of 71 to 84 percent, the GCCT estimate were 78 to 81 percent, and the GCCT-MSH estimates were 82 to 85 percent.<sup>29</sup> For the CAI, the same validity measure estimate has ranged from 79 to 82 percent, and for the IFI it was 76 to 90 percent.<sup>35</sup> Thus, percentage agreement validity measures on all of the older instruments have been found to be in a similar range. The results of the present research on CADCOMP, which produced percentage agreement estimates of 82 and 86 percent, is well within this established range. The CST is the only one of the older instruments that has drawn serious questions regarding validity with concerns expressed about the vagueness of scoring criteria, question bias, and low specificity resulting in a high proportion of false positives.<sup>10, 35, 39-41</sup>

In addition to predictive validity, content validity is an important concern in the design of assessment instruments. Although this aspect can only be addressed descriptively, it may be worth pointing out that CADCOMP is approached only by the IFI in its breadth of coverage of data relevant to the competency decision (see description of the content of the CADCOMP narrative report above). In contrast, the CST, CAI, GCCT, and GCCT-MSH are narrowly focused instruments that provide no data with regard to either the clinical or causal dimension of the competency construct. This feature should give CADCOMP a considerable content va-

lidity advantage over these four instruments.

Of all the available instruments, CADCOMP alone produces a detailed narrative report summarizing the important clinical, functional, and causal findings and then systematically relates these to a state's statute governing competency determinations. This report was designed to avoid any confusion with the construct of criminal responsibility and does not equate the competency construct with the construct of mental illness. The report is extensively detailed, well organized, and comprehensible. The source and limitations of the data base are well documented. The relevant clinical and legal function findings are clearly summarized so that any competency judgment based on the contents of the report would be supported in a consistent, rational manner. These features of CADCOMP and the narrative report it generates address many of the criticisms of competence evaluations and reports noted above.

At this point in the development of CADCOMP, it appears that the first of three major research objectives is being realized. In brief, using only the CADCOMP narrative report based on a computer assisted self-report of the defendant, a mental health clinician can arrive at a reliable competency judgment that is at least as valid as judgments based on other competency instruments. Considering the fact that other approaches, i.e., the CAI and IFI, require lengthy face-to-face interviews and produce no preliminary report, CADCOMP may offer a considerable efficiency advantage.

This observation suggests that progress on the second major objective, i.e., providing an instrument that will conserve the scarce resources of mental health clinicians who conduct competency evaluations in the community, may well be feasible.

There may be important applications of CADCOMP in the field of competency research. With some notable exceptions there are few reports in the literature of attempts to examine how, in specific instances, the competency decision was made. Discussing the use of the CST and GCCT-MSH from a research perspective, Nicholson *et al.*<sup>29</sup> have commented:

Continued research and development of these instruments are obviously necessary. Nevertheless, we wish to make it clear that because of their advantages—simplicity and standardization of administration, interscorer reliability, and predictive validity—we encourage the use of these instruments. Furthermore, unlike structured interviews for competency, these quantitative instruments have explicit scoring criteria that enable us to investigate not merely whether the tests work but, more importantly, how they predict competency to stand trial (p. 392).

An important point with regard to CADCOMP may be made here. CADCOMP is entirely standardized in that all questions are presented to all subjects in the same manner and the computer requires an answer to all questions before testing can be terminated. Furthermore, CADCOMP readily lends itself to quantification and may be equipped with specific, rule-based scoring criteria that would produce a competency score on each defendant. CADCOMP equipped with such a scoring program would com-

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bine the advantages of the CST and GCCT described above by Nicholson *et al.*<sup>29</sup> with the comprehensive data base coverage found only in the IFI. Such a device would have a wide range of clinical and research applications.

Much developmental research remains to be done on CADCOMP including further reliability research, validating CADCOMP against an array of independent criterion measures, standardization on large samples of defendants, convergence of CADCOMP with other established instruments, distribution of defendant characteristics by CADCOMP based competency status, development of a CADCOMP rule-based scoring program, factor analysis of CADCOMP items to develop subscales, and replication in other settings. At the present stage in its development, CADCOMP appears to have considerable potential as a competency screening instrument and further developmental research is clearly indicated.

If further research supports the routine clinical use of CADCOMP, several potential benefits are envisioned. In many jurisdictions the availability of qualified mental health professionals to the courts is limited. In those jurisdictions the CADCOMP may provide a screening and sorting function like that envisioned by Lipsitt *et al.*<sup>32</sup> for the CST. The CADCOMP report with its description and analysis of a comprehensive data base, review of competency standards, and treatment recommendations may raise the general standard of practice of all persons involved in the process through its educational impact. At least

judges will consistently be provided with the basic observations and the causal connections underlying the mental health clinician's conclusions. Finally, in relationship to the third major objective, it is at least feasible that CADCOMP performance will be found to vary meaningfully with a defendant's clinical status, offering the possibility that CADCOMP could be administered to the same defendant over time thus documenting changes in competency status.

## Conclusions

We have demonstrated that, using interactive computer techniques modeled on the traditional psychiatric interview and supervised by a technician, it is possible to produce a meaningful and detailed assessment of a defendant's competency to stand trial. Furthermore, the preliminary interobserver agreement and predictive validity estimates of CADCOMP when it was used as a competency screening instrument are in the same range as similar measures of the older competency instruments described in the literature. Comparing judgments of competency based only on a reading of the CADCOMP generated narrative report with judgments based on face-to-face psychiatric interviews or videotapes of these same interviews by independent raters suggested that most of the classification errors that do occur are false positives. If further research supports these preliminary results, CADCOMP may prove to be particularly useful as a research instrument for understanding the process by which competency decisions are actually made and in the proc-

ess clarify and validate the competency construct. In the clinical setting, CADCOMP may prove to have value as a preliminary assessment and report generating instrument increasing the efficiency and effectiveness of mental health clinicians performing competency assessments in the community and for following the progress of ITP defendants in forensic treatment facilities. Further developmental research is warranted before CADCOMP could be applied routinely in the clinical setting.

### References

1. Coles EM, Pos R: Assessment of fitness to stand trial: The need for a profile rather than a scale. *Psychol Rep* 57:1051-4, 1985
2. *Youtsey v. United States*. 97 F. 937 (6th Cir. 1899)
3. Ausness CW: The identification of incompetent defendants: Separating those unfit for adversary combat from those who are fit. *K L J* 66:666-706, 1978
4. *Dusky v. United States*. 362 U.S. 402 (1960)
5. *Wieter v. Settle*. 193F.Supp. 318(W.D. Mo. 1961)
6. Cornbach LJ, Mehl PE: Construct validity in psychological tests. *Psychol Bull* 52:281-302, 1955
7. Golding S, Roesch R, Schreiber J: Assessment and conceptualization of competency to stand trial: preliminary data on the interdisciplinary fitness interview. *Law Hum Behav* 8:321-34, 1984
8. Nicholson RA, Kugler KE: Competent and incompetent criminal defendants: A quantitative review of comparative research. *Psychol Bull*, 109:355-70, 1991
9. Roesch R, Golding SL: *Competency to Stand Trial*. Urbana, University of Illinois Press, 1980
10. Bennett G: A guided tour through selected ABA standards relating to incompetence to stand trial. *Geo Wash L Rev* 53:375-413, 1985
11. Bloom JD, Rogers JF: The legal basis of forensic psychiatry: Statutorily mandated psychiatric diagnoses. *Am J Psychiatry* 144:847-53, 1987
12. Steadman HJ, Monahan J, Hartstone E, Davis S, Robbins P: Mentally disordered offenders: A national survey of patients and facilities. *Law Hum Behav* 6:31-8, 1982.
13. Drob SL, Berger RH, Weinstein HC: Competency to stand trial: A conceptual model for its proper assessment. *Bull Am Acad Psychiatry Law* 15:85-94, 1987.
14. Hart S, Hare RD: Predicting fitness to stand trial: The relative power of demographic, criminal, and clinical variables. Paper presented at the biennial meeting of the American Psychology-Law Society, Williamsburg, VA, March 1990
15. Melton GB, Weithorn LA, Slobogin C: *Psychological Evaluations for the Courts: A Handbook for Mental Health Professionals and Lawyers*. New York, Guilford, 1987
16. Reich SH, Tookey L: Disagreements between court and psychiatrist on competency to stand trial. *J Clin Psychiatry* 47:29-30, 1986
17. Roesch R, Golding SL: Legal and judicial interpretation of competency to stand trial: statutes and procedures. *Criminology* 16:420-9, 1978
18. Arkes HR: Principles in judgment/decision making research pertinent to legal proceedings. *Behav Sci Law* 7:429-56, 1989
19. Dawes RM: Experience and validity of clinical judgment: The illusory correlation. *Behav Sci Law* 7:457-67, 1989
20. Faust D: Data integration in legal evaluations: Can clinicians deliver on their premises? *Behav Sci Law* 7:469-83, 1989
21. Faust D, Ziskin J: The expert witness in psychology and psychiatry. *Science* 241:31-5, 1988
22. Garb H: Clinical judgment, clinical training, and professional experience. *Psychol Bull* 105:387-96, 1989
23. Elwork A: Psychological assessments, diagnosis and testimony: a new beginning. *Law Hum Behav* 8:197-203, 1984
24. Hess JH, Thomas HE: Incompetency to stand trial: Procedures, results, and problems. *Am J Psychiatry* 119:713-20, 1963
25. McGarry AL: Competency for trial and due process via the state hospital. *Am J Psychiatry* 122:623-31, 1965
26. Owens H, Rosner R, Harmon R: The judge's view of competency evaluations. *Bull Am Acad Psychiatry Law* 13:389-97, 1985
27. Robey A: Criteria for competency to stand trial: A checklist for psychiatrists. *Am J Psychiatry* 122:616-23, 1965
28. Lanyon RI: Psychological assessment procedures in court-related settings. *Prof Psychol: Res Prac* 17:260-8, 1986

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29. Nicholson RA, Briggs SR, Robertson HC: Instruments for assessing competency to stand trial: How do they work? *Prof Psychol: Res Prac* 19:383-94, 1988
30. Bukatman BH, Foy SL, de Grazia E: What is competency to stand trial? *Am J Psychiatry* 127:1225-9, 1971
31. Lawrence S: *Manual for the Lawrence Psychological-Forensic Examination*. San Bernardino, CA, Author, 1981
32. Lipsitt PD, Lelos D, McGarry AL: Competency for trial? A screening instrument. *Am J Psychiatry* 128:105-9, 1971
33. McGarry AL, Lipsitt PD, Lelos D: *Competency to Stand Trial and Mental Illness*. Rockville, MD, National Institute of Mental Health, Center for Studies of Crime and Delinquency, 1973
34. Wildman RW II, Batchelor ES, Thompson L, *et al.*: The Georgia Court Competency Test: An attempt to develop a rapid, quantitative measure of fitness for trial. Unpublished manuscript, Forensic Services Division, Central State Hospital, Milledgeville, GA, 1978
35. Schreiber J, Roesch R, Golding S: An evaluation of procedures for assessing competency to stand trial. *Bull Am Acad Psychiatry Law* 15:187-203, 1987
36. Barnard GW, Robbins L, Tingle D, Shaw T, Newman G: Development of a computerized sexual assessment laboratory. *Bull Am Acad Psychiatry Law* 15:339-47, 1987
37. Spitzer RL, Cohen J, Fleiss JL, Endicott J: Quantification of agreement in psychiatric diagnosis: A new approach. *Arch Gen Psychiatry* 17:83-7, 1967
38. Roesch R: A brief, immediate screening interview to determine competency to stand trial: A feasibility study. *Crim Just Behav* 5:241-8, 1978
39. Brakel S: Presumption, bias, and incompetency in the criminal process. *Wis L Rev* 1974:1105-30
40. Daniel AE, Beck NC, Herath A, Schmitz M, Menninger K: Factors correlated with psychiatric recommendations of incompetency and insanity. *J Psychiatry Law* 12:527-44, 1984
41. Nottingham EJ, Mattson RE: A validation study of the competency screening test. *Law Hum Behav* 5:329-35, 1981