

THE WISCONSIN PROCEDURE FOR APPRAISAL OF CLINICAL COMPETENCE (W-PACC): MODEL AND DATA

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A conception of supervision and appraisal and a technical report on a procedure for summative appraisal of clinical competence are presented. The conception is based on three interdependent assumptions about the construct of clinical competence. An appraisal procedure has been developed that puts into operation key concepts in the proposed conception. Reliability and validity data from four serial studies on the appraisal procedure are reviewed, including preliminary findings relating clinical competence to academic grade point average.

SEVERAL years ago the clinical staff at the University of Wisconsin-Madison assigned themselves an in-house research task: to make explicit the processes by which staff supervisors appraise and grade clinical performance. Research has generated information in three areas: (1) a conception of supervision and appraisal, (2) a procedure for summative appraisal of clinical competence, and (3) an aggregate of preliminary findings on clinical and supervisory processes. This report is a formal presentation of a conception of supervision and the reliability and validity data on an appraisal procedure. A detailed *Applications Manual* for the appraisal procedure is available elsewhere.¹ Preliminary research findings have been discussed previously (Shriberg et al., 1974a, 1974b) and will be developed in a forthcoming report.

A WORKING CONCEPTION OF SUPERVISION AND APPRAISAL

The literature in clinical and supervisory processes consists of three types of articles: (1) position papers and surveys on professional and philosophical issues in

¹A copy of the *Wisconsin Procedure for Appraisal of Clinical Competence (W-PACC) Applications Manual* is available at no cost from the Department of Communicative Disorders, University of Wisconsin-Madison, 1975 Willow Drive, Madison, Wisconsin 53706.

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clinical training, including attempts to define the role of the supervisor (Anderson, 1970, 1973, 1974; Halfond, 1964; Johnson;² Nelson, 1973; Prather, 1967; Roth, 1974; Ward and Webster, 1965a, 1965b); (2) conceptual, technical, or data-bound reports on procedures for observation and analyses of the clinical process and appraisal of clinical competence (Boone, and Prescott, 1972; Brooks and Hannah, 1966; Diedrich, 1969; Johnson, 1971; Klevans and Volz, 1973; Schalk, 1972; Schubert, 1974; Van Riper, 1971); and (3) research reports investigating a particular area of clinician or supervisory behavior (Cooper, 1966; Culatta, Colucci, and Wiggins;³ Davis, 1968; Irwin, 1971; Nelson, 1972; Shriberg;^{4,5} Stech, 1971; Stinson and Robertson, 1973). As these representative citations suggest, this body of literature consists of a relatively large proportion of unpublished manuscripts and convention or symposium papers. In part, the lack of a robust experimental literature can be attributed to the relatively recent interest in clinical and supervisory process; Anderson (1974) dates the onset of visible interest to only the early 1960s. More pointedly, the lack of systematic study of clinical and particularly supervisory processes in communicative disorders undoubtedly reflects the difficulty in accomplishing well-controlled research in this area. Control of individual differences across supervisors, clinicians, clients, and settings poses problems of internal validity in group

²Johnson, T. J., Supervision: A philosophy and development of observational techniques, unpublished paper, Utah State University, 1971.

³Culatta, R., Colucci, S., and Wiggins, E., Communication between clinician and supervisor, unpublished paper, University of Pittsburgh, 1974.

⁴Shriberg, L. D., Study of supervisory effectiveness and efficiency, unpublished paper, University of Wisconsin-Madison, 1972.

⁵Shriberg, L. D. (Ed.), Evaluation of a pilot project in the use of assistant supervisors, unpublished paper, University of Wisconsin-Madison, 1973.

designs; these same concerns limit the external validity of single subject designs. Methodological difficulties notwithstanding, at a time when over 44,000 students are being trained for careers in communicative disorders (Willis and Willis, 1974), the need for systematic study of the clinician and the supervisor is urgent.

Central to virtually every issue in the clinical and supervisory process is the construct of clinical competence. To evaluate competence is to claim an understanding of those elements and processes that define its achievement. Currently, each training program's clinical staff must wrestle with both the philosophical issues in defining clinical competence and the pragmatics of equitable appraisal. The conception of clinical supervision and appraisal to be presented here is dependent on the verity of three interdependent assumptions about the construct of clinical competence.

1. *The content domain of clinical competence refers to a large rather than a restricted set of skilled behaviors.* Consensual validation for at least four content domains of clinical competence is fairly easy to support. Bloomer's (1956) early division of clinical responsibilities and Perkins et al.'s (1970) review of the National Examinations in Speech Pathology and Audiology suggest four areas in which the clinician must be skilled: (1) assessment, (2) management, (3) counseling of client and family, and (4) interacting with other professionals. However, attempts to obtain agreement on subdivisions within each of these areas have not been productive; lists describing the attributes of a good clinician are notoriously easy to generate (for example, see "Discussion Summaries," Turton, 1974). On the other hand, our experience is that attempts to define clinical competence that do not include each of the four areas above are unacceptable. For example, a definition of clinical competence tied solely to client progress is attractive from a measurement standpoint but fails to account for other professional responsibilities. Supportive personnel can be trained for accuracy, effectiveness, and efficiency in the technical routines involved in testing and some aspects of management, but the construct of clinical competence invokes a broader potential for effectiveness in interpretive and consultative activities.
2. *Criterion-referenced appraisal of all the content domains of clinical competence is not currently feasible.* If the terrain of competence extends over the four content domains listed above, an appraisal instrument must cover the same territory. However, even for relatively straightforward technical procedures, it is difficult to obtain consensus for criterion-referenced tests of effectiveness or efficiency. Consider, for example, a criterion-referenced test of the skills of a pharmacy aide trained to dispense prescriptions. It might include a check on the accuracy with which the aide types labels from prescrip-

tions—perhaps no less than 99% word accuracy would qualify as acceptable. How many clinical behaviors of speech clinicians can be sampled in such a quantitative fashion? And even if criterion-referenced appraisal statements could be agreed upon, how much of the verbal and nonverbal behavior of the clinician could be as objectively measured as the typing sample? (That is not to say that preclinical skills, for example, phonetic transcription, pitch discrimination, and scoring deviant articulation, should not be trained on a criterion-referenced basis [Shriberg, 1972; 1975]; however, such skills should be trained and appraised in the clinical laboratory well before client contact.) Although progress toward a technology of behavioral change is evident in the clinical literature, a clinician's competence is currently very much in the eyes of the beholder. Until data firmly establish the superiority of a well-defined set of procedures or interpretations for a given clinical problem, the very same behavior of a clinician may be rated appropriate or inappropriate, depending on the point of view of the observer. For example, current dialogue contrasting the "tough, insensitive" behaviorist with the "tender, inefficient" humanist may be less acrimonious, but supervisors continue to have divergent views on related issues (Klevans and Volz, 1973; Schalk, 1972; Johnson, 1971).

The applied significance of this viewpoint is that clinical competence is currently assessable only through the individual "filters" of a clinical supervisor. However, this is perfectly consistent with the academic freedom given to faculty in the classroom situation. In fact, in most university settings, the same person simply extends academic teaching functions into the clinical, supervisory arena. In both situations, there should be eventual accountability checks both on the selection of material and points of view a student is expected to learn and on the standards by which learning is to be demonstrated and grades assigned.

3. *Clinical competency implies an appraisal of the clinician as a "product" of a term of supervision.* Perkins et al. (1970) note that the purpose of the Certificates of Clinical Competence procedures are to "protect the public." Just as a potential employer is interested in an applicant's skills, not in the particular process by which those skills were obtained, appraisal of clinical effectiveness implies a thorough description of a supervisor's output or "product". Hence, summative appraisal of clinical competence is necessarily an end-of-term activity, as differentiated from an averaging of performance throughout a term of supervision (Bloom et al., 1971). Four considerations derived from this assumption and the two previous assumptions will complete these remarks.

First, if a supervisor's own standards for clinical excellence are the reference goals, then supervisors are

accountable for their efforts to achieve those goals as well as the goals themselves. Some potentially excellent students may need to be recycled through a learning problem several times. Allowing for individual differences in aptitude among student clinicians, any appraisal of the "products" of a term of clinical supervision is also, in part, an appraisal of the supervisor's teaching efforts. Second, the behavioral correlates of clinical effectiveness must be independently motivated, that is, not dependent on supervisory input for maintenance. Third, any overall statement of performance—for example, a clinical grade—should be weighted to reflect the relative importance of performance in each of the skill domains. Finally, because of the immediate and long-term contingencies on clinical grades in academic programs, the grade is also likely to reflect adjustments for the academic and clinical experiences of the student, for process characteristics (that is, rate and facility of learning), and for any mitigating circumstances.

Figure 1 is a graphic presentation of the elements and temporal events in supervision and summative appraisal. In the sense in which this conception selectively isolates components to reflect the assumptions just reviewed, it is roughly a model. Functionally, it serves as a conceptual overview of a specific appraisal procedure—the Wisconsin Procedure for Appraisal of Clinical Competence (W-PACC). Some of the key terms in Figure 1 will be defined in the next section. Here, the two stages of supervision and appraisal described in Figure 1 can be summarized as follows: (1) During the first 80% of client contact within a term of supervision, the supervisor provides the input and feedback needed to help the clinician attain the clinical skills

that the supervisor deems appropriate. Supervisors who truly attempt to "teach" (not "monitor"; Eye, Netzer, and Krey, 1971) might use formative appraisal instruments (Boone and Prescott, 1972; Schubert, 1974) as well as other analysis procedures to isolate functional relationships between clinician and client behaviors. (2) During the last 20% of the term of client contact, the supervisor appraises the extent to which effectiveness is dependent upon continued supervisory input. These observations can be quantified to yield product or skill scores. Depending on the situation, this quantitative product information can, in turn, be weighted by a student's entrance skills, by the difficulty of the clinical assignment, and by process characteristics to derive a clinical grade.

Summarily, this conception views a clinician's competence as a construct that is never itself directly assessed. Rather, the professional judgments of an experienced clinical supervisor are quantified on a dimension of effectiveness/independence. To the extent that a clinician obtains high effectiveness/independence scores from different supervisors with different clients, we might infer that a clinician is approaching clinical competence.

DEVELOPMENT OF A SUMMATIVE APPRAISAL PROCEDURE

Overview of Research Procedures and W-PACC

Over a period of three years, the first author and a core of six to seven clinical practicum supervisors de-

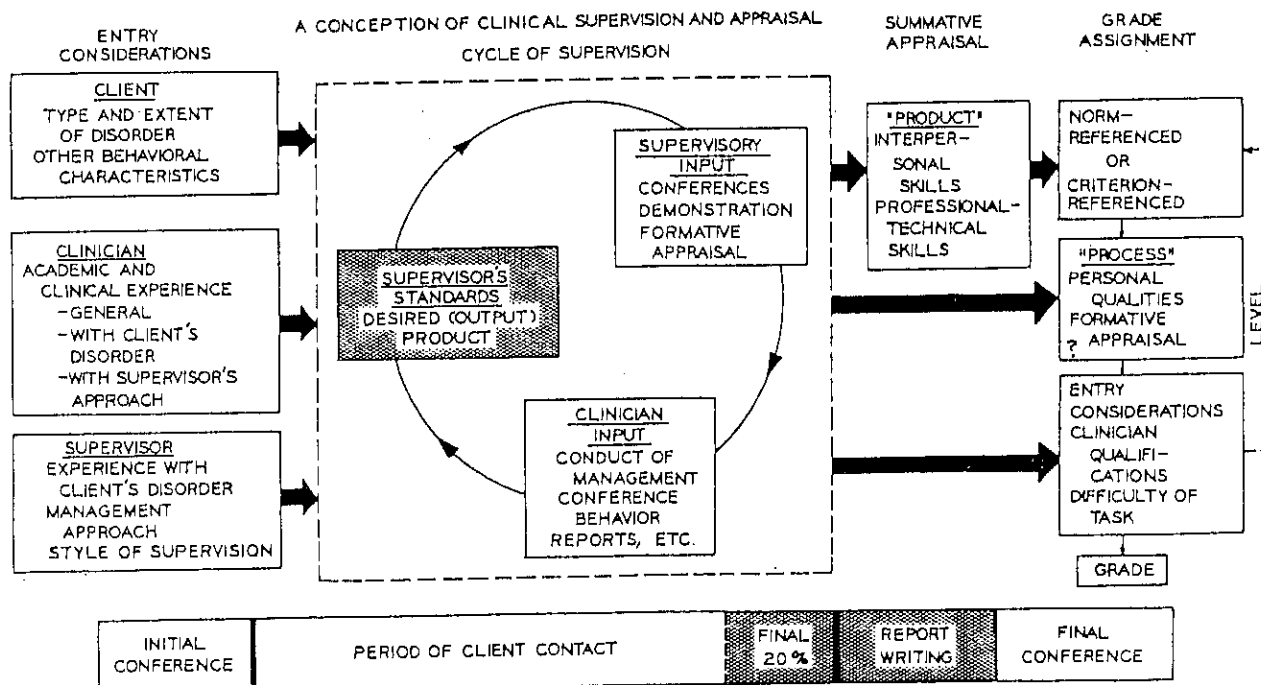


FIGURE 1. A conception of clinical supervision and appraisal.

TABLE 1. Summary of the sequence and purposes of four studies of the Wisconsin Procedure for Appraisal of Clinical Competence (W-PACC).

| Study | Term | Num-ber of Super-visors | Num-ber of Ap-praisals | Purposes of Study | | | |
|-------|-------------|-------------------------|------------------------|------------------------------|--------------|-----------|-------------|
| | | | | Item and Format Devel-opment | Reli-ability | Va-lidity | Corre-lates |
| I | Fall 1972 | 8 | 115 | X | - | - | - |
| II | Spring 1973 | 9 | 116 | X | X | X | X |
| III | Fall 1973 | 7 | 95 | X | X | X | X |
| IV | Spring 1974 | 7 | 110 | - | - | X | X |

veloped the above conception of supervision and appraisal and conducted four serial studies on an appraisal procedure. Table 1 is a summary of the primary questions posed in each study. Each study consisted of (1) having supervisors fill out the most current version of an appraisal instrument for each of their supervisees at the end of a semester, (2) data analyses using standard computer programs for descriptive and inferential statistics, and (3) discussion and revision. The supervisory group represents diverse educational backgrounds and points of view about management. Jointly, this group was responsible for supervision of 12 different types of practicum. The need was for a flexible procedure to accommodate individual differences in supervisory orientation and practicum sites, yet allow a common quantitative base for grading needs within a university training program.

The procedure that has finally been adopted, titled the Wisconsin Procedure for Appraisal of Clinical Competence (W-PACC), is currently in use as the summative appraisal procedure for practicum students in the Speech and Hearing Center, University of Wisconsin—Madison. The Appendix contains the column heading descriptors and some sample items from the Clinician Appraisal Form (CAF)—the instrument used to derive the scale scores. Note in the Appendix that the dimension on which a supervisor scores clinician behavior is the extent to which a clinician's effectiveness is independent of supervisory input. The 38 items of the Clinician Appraisal Form are divided into two scales; interpersonal skills (10 items) and professional-technical skills (28 items). The later scale is nominally divided into four subdomains: developing and planning, teaching, assessment, and reporting. An additional 10 items are available to summarize personal qualities, such as appearance and punctuality.

Initial inspection of this format might suggest that items on the Clinician Appraisal Form are not unlike those on other summative appraisal instruments that have been informally passed from one training center to another. In terms of content, the items are quite similar to existent instruments we have reviewed. However, the Clinician Appraisal Form differs in that (1) it follows from a unified conception of supervision and the appraisal process, (2) reliability and validity data have been obtained, and (3) an *Applications Manual*

containing guidelines for administration of W-PACC has been written. Although the manual contains full details of the procedure, two key features need to be summarized here for comprehension of the data to follow: (1) At the beginning of a supervisory term, clinicians are designated as Levels I, II, III, or IV based on a matrix of criteria and decision rules that account for general and client-specific academic and clinical experience. Hence, a clinician working in more than one practicum setting may be assigned different levels by each of his supervisors, depending on several criteria. (2) For each of the skills scales, interpersonal skills and professional-technical skills, a percentage score is derived. Guidelines in the *Applications Manual* describe the procedures for obtaining "product" scores and for relating these scores to grading decisions.

Reliability

Studies II and III investigated both the temporal stability of supervisor's scale scores and item ratings and the internal consistency of the Clinician Appraisal Form. Item-to-scale coefficients are discussed below in the context of construct validity. Except where indicated, we were concerned with only the interpersonal skills and professional-technical skills scales. Personal qualities information is essentially descriptive and is viewed as supplementary information.

The test-retest data for scale scores obtained in Study III are presented in Table 2. Seven supervisors randomly selected and rescored approximately 50% of their Clinician Appraisal Forms; the average interval between scoring was four days. Spearman Rho coefficients were significantly greater than zero ($p < 0.05$) for both scales for all but one supervisor. Across the seven supervisors, the average difference for each test-retest comparison was approximately 2.0 percentage points for interpersonal skills scores and 2.6 points for professional-technical skills scores. One sample of t tests for possible differences in the absolute magnitude of average scale scores indicated that there were significant differences between the means in two of the 14 comparisons. Thus ratings of clinicians tend to be relatively stable.

At the item level, temporal stability for scores on each of the 38 items was calculated for each supervisor (Study III). For each of the 10 interpersonal skills items, median test-retest correlations across the seven supervisors ranged from 0.81 to 1.00, with an average of 0.93. Median coefficients for each of the 28 professional-technical skills items ranged from 0.50 to 0.97 with an average of 0.85.

Internal consistency of items was assessed in Study III by calculating split-half (odd-even) correlation coefficients for each of the scales. To eliminate the effects of supervisors, pooled within-supervisor correlations were calculated. The correlations for interpersonal skills and professional-technical skills, were 0.86 and 0.94, respectively.

TABLE 2. Test-retest stability for seven clinical supervisors' interpersonal skills and professional-technical skills scores on the Clinician Appraisal Form.

| Supervisor | Interpersonal Skills | | | Professional-Technical Skills | | |
|------------|----------------------|---|--------|-------------------------------|---|--------|
| | Spearman ρ | Average Percentage-Point Difference in Test-Retest Scores | t | Spearman ρ | Average Percentage-Point Difference in Test-Retest Scores | t |
| A | .65* | 3.1 | ns | 0.89†† | 4.4 | < 0.05 |
| B | .99†† | 0.7 | ns | 1.00†† | 0.5 | ns |
| C | .98†† | 2.1 | ns | 0.95†† | 2.6 | ns |
| D | .93†† | 1.3 | ns | 0.88† | 3.4 | ns |
| E | 1.00†† | 0.2 | ns | 1.00†† | 1.0 | ns |
| F | .82† | 2.4 | ns | 0.83† | 3.4 | ns |
| G | .89†† | 3.4 | < 0.05 | 0.54 | 2.6 | ns |
| | | $\bar{X} = 2.0$ | | | $\bar{X} = 2.6$ | |

* $p < 0.05$.† $p < 0.005$.†† $p < 0.001$.

Overall, these reliability data are considered adequate to excellent. The internal consistency data are very satisfactory for this type of instrument. The stability data indicate that at least one group of supervisors, probably a representative sample of the diversity of management orientations and practicum responsibilities currently existent, can score Clinical Appraisal Form items reliably. Not all members of the group were equally reliable, even allowing for differences in the ranges of scores within supervisee groups (narrow ranges act to attenuate reliability coefficients). However, all supervisors, even those who were not particularly committed to the spirit or utility of "circling numbers" improved their reliability from Study II to Study III. To obtain improvement after Study II, the group developed a set of guidelines covering the actual decision process; these guidelines are included in the *Applications Manual*.

Validity

Content validity. Content validation assesses the fidelity with which an appraisal instrument samples a domain of tasks. Isaac and Michael (1972) note that this comparison of test items to the content that is to be measured is essentially a subjective procedure, similar to recognizing the adequacy of a definition. Two aspects of the Clinician Appraisal Form require such inspection.

First, the parameter on which items are scored—*independence/effectiveness* (Appendix)—is supported both by the many literature discussions of the role of the supervisor (Hatfield et al. 1973; Klevans and Volz, 1973; Perkins et al., 1970) and by a group of experienced supervisors who have been asked to review W-PACC. This latter group, people who supervise university students in several public school settings, also endorsed the final set of 38 items on the CAF (plus the 10 personal qualities items) as an adequate sample of the competence domain for their individual supervisory settings. Hence, following Anderson's (1974,

Figure 3) five-part division of settings for supervision, content validity for students in "training programs" and "school practicums" has been endorsed as appropriate and adequate. These 38 items, then, comprise the content domain for several different competency-based practica. Content validation beyond these settings will, of course, require inspection by supervisors working elsewhere.

Construct validity. Two constructs basic to W-PACC require empirical validation: the skills domains of interpersonal versus professional-technical and the construct of clinician level. Following the customary approach to construct validation (Guion, 1974; *Standards for Educational and Psychological Test*, 1974), a construct attains validity to the extent to which hypotheses about how it should behave are substantiated by empirical findings. Results of the several analyses reported here support the expected operations of each of these two constructs.

1. **Item-to-scale correlations.** Division of competence appraisal into two putative skills domains, interpersonal and professional-technical, was prompted by a paper by Diedrich (1969). This division has attractive face validity, and roughly similar divisions have appeared in other summative appraisal instruments. In Study III each of the 38 items was correlated both with its scale score minus the particular item and with the other scale. On the average, an item had a correlation 0.20 higher with its own scale than with the other scale. Only six items correlated more highly with the other scale. In four of these cases, the difference in correlations was less than 0.05. In each of the remaining cases, the wording of the item suggests that both interpersonal skills and professional-technical skills are involved: Interpersonal Skills Item #5—"Develops understanding of therapy goals and procedures with client" and Professional-Technical Skills Item #14—"Selects pertinent information to convey to client." The item-corrected, item-to-scale correla-

tions ranged from 0.38 to 0.85 with an average of 0.68. These data lend statistical support to the clinical utility of dividing the 38 items into these two skills domains.

2. *Intercorrelations among Levels and Scales.* The construct of level was operationally defined for grade assignment. Experience had indicated that entry skills for practicum settings were not readily associated with class standing—that is, undergraduate versus graduate—as is predicated on several of the appraisal instruments surveyed. Recall that Clinician Appraisal Form scores categorize clinician behavior on an absolute scale of effectiveness/independence. Hence, some formal procedure was needed for adjusting these scores by a clinician's entry skills, so that less experienced clinicians could obtain the highest clinical grades if warranted.

Correlational procedures were employed (Study III) to determine the validity of the construct of level. As is shown in Table 3, the ordinary product-moment correlations of level with interpersonal skills and professional-technical skills are higher than the point biserial correlations of class standing with these scales. Also, if supervisors and class standing are partialled out the partial correlations of level with each scale are higher than the corresponding partial correlations for class standing. Indeed, if level is partialled out the relationship of class standing to skills is slight. Thus, on the basis of either the ordinary or partial correlations, a clinician's level is better than his class standing in predicting his skills scores.

It has been interesting to compare the mean performance of clinicians at each level on the two skills scales. In all studies, Level I clinicians (the least experienced) tend to score about five to seven points higher on interpersonal skills than on professional-technical skills. By the time a clinician reaches Level IV, however, this gap has typically closed, or his professional-technical skills score may be even slightly higher than his interpersonal skills score. We have been intrigued by the potential properties of this "difference

TABLE 3. Ordinary and partial correlations of Clinical Appraisal Form scales with level and class standing.

| Correlations | Interpersonal Skills Scale | Professional-Technical Skills Scale |
|---|----------------------------|-------------------------------------|
| Ordinary | | |
| Level (I-IV) | 0.37 | 0.53 |
| Class standing (UC-G) | 0.19 | 0.31 |
| Partial | | |
| Level, with supervisors and class standing partialled out | 0.33 | 0.48 |
| Class standing, with supervisors and level partialled out | 0.07 | 0.11 |

score" as a correlate of several clinical process variables, including very early prediction of clinical competence. Beginning clinicians who do not demonstrate this gap, or whose initial interpersonal skills scores are actually lower than their professional-technical skills scores, may require particular kinds of guidance.

Criterion validity. The "criterion problem" is one of the most vexing issues in test validation (Guion, 1974). In the present context, what criteria can be used to support the claim that scores derived from supervisors' judgments are valid estimates of a student clinician's competence? Predictive validity coefficients would require the availability of a job performance instrument relevant to all types of settings in which graduate clinicians find employment. We are not aware of any instrument currently used to describe and quantify how well graduates have performed other than scores on the National Examinations in Speech Pathology and Audiology, which are not considered suitable validating criteria for predictive validity. Such accountability data are, of course, very much in demand from training programs. Moreover, to the extent that estimates of the predictive or concurrent validity of a summative appraisal instrument involve data from ratings, rather than "objective" performance or pure tallies of behaviors, obtained validity coefficients will reflect the same sorts of error variance referred to earlier in this paper. Recall that the conception on which W-PACC is based views clinical competence as a construct that is not itself directly assessed. What is quantified is the extent to which a clinician demonstrates effectiveness/independence in the best judgment of his or her supervisor.

To offer at least an approach to an estimate of concurrent validity, we looked at the correlations between CAF scores and the clinical grades supervisors gave to each of their students in Study III. Grades of A, AB, B, BC, or C were assigned according to the criteria that each supervisor customarily used. Again, although grades reflect other considerations and contingencies, we would expect at least moderate correlation between skills scores and grades to support the validity and utility of CAF scores as "competence" statements.

Summarizing the data, the correlations between clinical grades and scale scores were interpersonal skills—0.52; professional-technical skills—0.75; and personal qualities—0.08. However, the partial correlation of grade with interpersonal skills is only 0.06 (with professional-technical skills, level and supervisor partialled out), whereas the partial correlation of professional-technical skills with grade (with interpersonal skills, level, and supervisor partialled out) is 0.71. Thus, correlation between grade and interpersonal skills is high because of the high intercorrelation between interpersonal skills and professional-technical skills (0.70). Apparently, for these clinicians and supervisors, a major determinant of a clinical grade (over 50% of the variance) is captured in those clinician behaviors represented by a professional-technical skills

score. We suggest that the remaining variance is distributed among process considerations, level considerations, and mitigating circumstances.

A PRELIMINARY FINDING: GRADE POINT AVERAGE

It seems appropriate to include one preliminary finding in this report. University training programs assume a positive relationship between academic competence, as estimated by grade point average (GPA), and clinical competence. The assumption is that the former predicts the latter, particularly with regard to admissions procedures and academic standards. Our data lend moderate support for that assumption.

In Studies II, III, and IV, each student clinician's GPA (in communicative disorders course work only) was coded. Table 4 is a summary of the correlation

TABLE 4. Correlations of grade point average (GPA) and scale scores, and GPA and "subjective" grade for seven clinical practicum supervisors in Studies II, III, and IV. *N*s for each within-supervisor coefficient range from 8-21; the statistical assessment is adjusted accordingly.

| Supervisor | Interpersonal Skills | | | Professional-Technical Skills | | | Subjective Grade IV |
|------------|----------------------|-------|-------|-------------------------------|-------|-------|---------------------|
| | II | III | IV | II | III | IV | |
| A | 0.80 | 0.04 | -0.04 | 0.43 | 0.47 | 0.33 | 0.05 |
| B | -0.18 | -0.06 | -0.04 | -0.06 | 0.03 | 0.08 | -0.25 |
| C | -0.17 | 0.37 | 0.81† | 0.38 | 0.43 | 0.82† | 0.79† |
| D | 0.41 | 0.38 | 0.68 | 0.56 | 0.53* | 0.76† | 0.75† |
| E | 0.27 | 0.39 | 0.09 | 0.42 | 0.52* | 0.54* | - |
| F | 0.34 | 0.01 | 0.49 | 0.20 | 0.54 | 0.37 | 0.25 |
| G | -0.04 | 0.24 | 0.25 | 0.22 | 0.29 | 0.52* | 0.18 |
| Overall | 0.13 | 0.01 | 0.24* | 0.22* | 0.27† | 0.38† | 0.23* |

* $p < 0.05$.

† $p < 0.01$.

coefficients obtained between GPA and scale scores, for the core of seven supervisors involved in all three studies. The right-most column in Table 4 contains the correlations obtained between GPA and "subjective" grade (Study IV only). Overall, student clinicians with higher GPAs obtain higher scale scores. This is particularly evident in both the magnitude and the semester-by-semester stability within supervisors of the correlations between professional-technical skills scores and GPA. However, allowing for the selective influence of clinician level and practicum differences across supervisors, which are only partially randomized across the three study samples, the magnitude of the correlations between GPA and grade varies considerably across supervisors. Note Supervisor B's consistently nonsignificant and negative coefficients, as opposed to the consistently positive and significant correlations for Supervisor D.

These preliminary findings suggest that although clinicians with higher academic grades are more likely to get the higher clinical grades, particularly as a grade

is weighted by a student's professional-technical skills, supervisors may be very differently attuned to the clinical correlates of academic grade point average. Additional findings, including relationships among personality dispositions and clinical effectiveness, will be presented in a forthcoming report.

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APPENDIX
Format and Sample Items from the Clinician Appraisal Form

| Sample Items | Specific Direction from Supervisor Does Not Alter Unsatisfactory Performance and Inability To Make Changes | | Needs Specific Direction or Demonstration from Supervisor To Perform Effectively | Needs General Direction from Supervisor To Perform Effectively | Demonstrates Independence by Taking Initiative, Makes Changes When Appropriate, and Is Effective |
|---|--|---|--|--|--|
| | Does Not Apply | Performance and Inability To Make Changes | To Perform Effectively | To Perform Effectively | |
| Interpersonal Skills | | | | | |
| Accepts, empathizes, shows genuine concern for the client as a person and understands the client's problems, needs, and stresses. | | 1 | 2-3-4 | 5-6-7 | 8-9-10 |
| Conveys to the client in a nonthreatening manner what the standards of behavior and performance are. | | 1 | 2-3-4 | 5-6-7 | 8-9-10 |
| Professional-Technical Skills | | | | | |
| Sequences teaching tasks to implement designated program objectives. | | 1 | 2-3-4 | 5-6-7 | 8-9-10 |
| Uses feedback and/or reinforcement that is consistent, discriminating, and meaningful to the client. | | 1 | 2-3-4 | 5-6-7 | 8-9-10 |