Correlation of Measures of Psychotherapy Competency in Psychiatry Residents

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INTRODUCTION: The ACGME Residency Review Committee in Psychiatry has stipulated that general psychiatry trainees develop "competency in applying supportive, psychodynamic, and cognitive-behavioral psychotherapies to both brief and long-term individual practice [1]." Residency programs are required to demonstrate and faculty are required to verify that trainees have attained the required competencies. Yet no generally accepted reliable and valid measure of psychotherapy competency has yet been developed.

Several measures are widely used to assess resident competence in psychotherapy [2,7].

- Evaluation by individual psychotherapy supervisors [3,4]
- Rating of resident's conduct of psychotherapy in live, recorded, or transcribed performance
- Training portfolios
- Performance on a multiple choice examination such as The Columbia Psychodynamic Psychotherapy Competence Test [5]
- Resident self-assessment such as the Counseling Self-Estimate Inventory (COSE), a self-report instrument designed to assess confidence and self-efficacy [6]

There have been few studies examining the reliability and validity of available competency assessment measures, and little empirical research examining the success of training programs in developing trainee competence in psychotherapy.

The current study had two goals:

1. To examine the changes in various performance measures as residents progress through training
2. To explore correlations among various measures of psychotherapy competence

METHODS: We conducted a retrospective analysis of all available data for residents in our program from July 2000 through July 2009 (63 residents), including:

1) Psychiatry Resident in Training Examination (PRITE) – Global Psychiatry score and Psychosocial Therapies subscore

2) Columbia Psychodynamic Psychotherapy Competency Test (CPPCT) - Scores (given as percentile rank among all examinees)

3) Counseling Self Estimate Inventory (COSE) – Scores on the COSE were collected for all PGY1 or PGY2 residents; however, COSE assessments were not routinely collected for PGY3 and PGY4 residents in the early years of this study. Our analysis used the first 34 of 37 items on the COSE due to inadvertent omission on some forms.

4) Supervisor ratings - Averaged global supervisor ratings of resident performance (5 point scale) in the following 9 areas: formulation skills; psychotherapeutic interventions; tolerance of uncertainty; transference, countertransference, boundaries; ability to utilize different conceptual models; humanistic qualities; practice-based learning (self evaluation, integration of feedback into practice); communication and interpersonal skills; working with difficult patients.

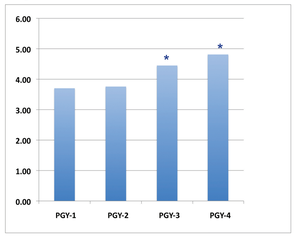
TABLE 1: Number of Residents with Available Data

	PGY-1	PGY-2	PGY-3	PGY-4
PRITE	49	47	42	33
CPPCT	49	48	40	21
COSE	49	48	26	17
Supervisor Rating	NA	39	35	24

Statistical analyses were performed with the Statistical Package for Social Sciences, SPSS. Analyses comparing performance in different training years were done using unpaired t tests (two tail) on pooled data for each training year. Correlations were done using paired data for individual residents to derive Pearson two tailed correlation coefficients. Due to missing data, the N for correlations was often less than the total N.

RESULTS: Figures 1-3 show changes in COSE, PRITE, and CPPCT by training year.

Fig 1: COSE Mean Item Score



*denotes p < 0.01 compared to PGY-1 and PGY-2

Fig 2: CPPCT Mean Percentile Rank

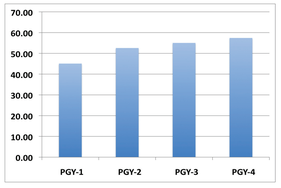
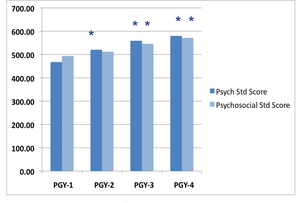


Fig 3: PRITE Standard Score



*denotes p < 0.01 compared to PGY-1

Changes in Performance Measures during Residency

- PRITE: Global Psychiatry scores changed significantly from PGY-2 - PGY-4. Psychosocial Therapy subscore did not change significantly from PGY-1 to PGY-2, but increased significantly in PGY-3 & PGY-4.
- COSE (resident confidence): COSE score unchanged (both total score & all individual COSE items) between PGY-1 and PGY-2. COSE increased dramatically by early PGY-3 after one year of classes and conducting supervised psychotherapy with 2 patients (24 of 34 COSE items showed significant change at $p < 0.05$ level or greater). COSE increased further in PGY-4 year (COSE N for PGY-4 too small for meaningful analysis). COSE item score range = 1-7.

Table 2: Correlations Among Measures of Competence[§]

	Total COSE PGY 1	Total COSE PGY 2	Total COSE PGY 3	Rank PRITE Psych PGY 2	Rank PRITE Psysoc PGY 2	Rank PRITE Psych PGY 3	Rank PRITE Psysoc PGY 3	CPPCT Nat. Rank PGY 1	CPPCT Nat. Rank PGY 2	CPPCT Nat. Rank PGY 3	CPPCT Nat. Rank PGY 4	Sup. Eval. PGY 2	Sup. Eval. PGY 3
Total COSE PGY 1	1 N = 49	.805** p = .000 N = 36	.448* p = .042 N = 21	-.134 p = .456 N = 33	.031 p = .863 N = 33	-.029 p = .881 N = 29	.036 p = .855 N = 29	.141 p = .400 N = 38	.013 p = .942 N = 34	.034 p = .868 N = 27	.594* p = .032 N = 13	.014 p = .944 N = 29	-.291 p = .159 N = 25
Total COSE PGY 2		1 48	.464* .026 23	-.019 .905 41	-.006 .972 41	.118 .492 36	.269 .113 36	.111 .540 33	.099 .534 42	.207 .241 34	.616** .008 17	-.149 .399 34	-.370* .037 32
Total COSE PGY 3			1 26	-.319 .121 25	.222 .286 25	-.154 .483 23	.248 .253 23	-.085 .722 20	-.146 .478 26	.202 .379 21	.218 .546 10	.002 .994 23	-.485* .030 20
Rank PRITE Psychiatry PGY 2				1 47	.403** .005 47	.648** .000 41	.495** .001 41	.454* .012 30	.359* .013 47	-.027 .868 39	-.157 .497 21	.448** .004 39	.063 .715 36
Rank PRITE Psychosocial PGY 2					1 47	.404** .009 41	.367* .018 41	.397* .030 30	.031 .834 47	-.083 .615 39	.120 .604 21	.269 .098 39	-.147 .389 36
Rank PRITE Psychiatry PGY 3						1 42	.595** .000 42	.089 .673 25	.166 .294 42	-.047 .775 40	.159 .491 21	-.004 .984 33	-.010 .956 36
Rank PRITE Psychosocial PGY 3							1 42	.049 .814 25	.141 .374 42	.136 .403 40	.062 .790 21	.120 .508 33	-.240 .158 36
CPPCT Rank PGY 1								1 39	.536** .002 30	.353 .099 23	.278 .382 12	.508** .007 27	.114 .615 22
CPPCT Rank PGY 2									1 48	.219 .175 40	-.023 .922 21	.206 .209 39	-.022 .897 36
CPPCT Rank PGY 3										1 40	.392 .088 20	.344 .058 31	.163 .350 35
CPPCT Rank PGY 4											1 21	.390 .122 17	.260 .297 18
Supervisor Evaluation PGY 2												1 39	.192 .329 28
Supervisor Evaluation PGY 3													1 36

[§]Pearson correlation coefficients, two-tailed, paired analysis

- CPPCT: CPPCT showed trend toward improved performance (average percentile rank) each training year (changes did not reach significance).
- Mean supervisor ratings consistently high & did not change significantly between PGY 2 & PGY-4 (either group means or paired analysis).

Correlated Measures

- Individual resident's scores on COSE throughout training
- Individual resident's scores on PRITE in PGY-2 & PGY-3
- Individual resident's scores on PRITE & CPPCT in PGY-2
- Total PGY-1 & 2 COSE score (before psychotherapy experience) with PGY-4 CPPCT score

Non-Correlated Measures

- COSE score with overall PRITE psychiatry score or PRITE psychosocial subscore
- COSE score with CPPCT in same training year
- PGY-2 supervisor rating with PGY-2 COSE score
- PGY-3 supervisor rating with PRITE psychiatry or psychosocial score or CPPCT score

Negatively Correlated Measures

- PGY-2 & 3 COSE scores with PGY-3 psychotherapy supervisor rating

STUDY LIMITATIONS

- Small N (6 residents/yr max) and incomplete data
- Supervisor evaluations non-standardized & without measures of validity or reliability
- Performance measures collected at different times during training years
- Retrospective analysis of data not systematically collected for research

DISCUSSION

- Resident confidence increases with first experiences conducting supervised psychodynamic psychotherapy, paralleled by significant improvement in PRITE psychosocial subscores.
- The early COSE-late CPPCT score correlation may suggest that greater psychotherapy interest or experience on entry predicts greater learning.
- The negative correlation between supervisor rating and COSE scores suggests a possible supervisory reaction to overconfidence and/or inflation of ratings to boost confidence.
- Uniformly above average supervisor scores that do not change year to year may reflect reluctance to give lower ratings, rating by PGY-expectation rather than competence, or lack of dependability of supervisor ratings.
- The relative lack of correlations may mean measures assess different aspects of performance, lack validity, or merely reflect the small N's in our study.

CONCLUSIONS:

Resident self-assessment does not appear to reflect competence as assessed by supervisors, or knowledge as assessed by objective tests.

Global supervisor evaluations do not appear to reliably measure competence.

Standardized supervisor assessment instruments are needed.

Further work is needed to develop reliable, valid measures of competency.

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