Purpose of Report:

- To consolidate perspectives of CUDCP members regarding their perceptions of what “competence” means as it relates to scientist-practitioner training
- To provide CUDCP input to the November, 2002, APPIC Competencies Conference

Sources of Input:

1. Summaries from five competency focus groups (2 research, 2 clinical, 1 professional development) comprised of members attending the January 2002 CUDCP Midwinter Meeting in Austin, Texas.

Format:

For each of the domains discussed (research, practice, integration of science and practice, professional development), the following questions were posed to the breakout groups. Not all groups were able to address all questions in their discussions:

1. How is competency in (research, clinical, professional development) defined? Identify specific competencies in the particular domain.
2. What are some of the ways that programs have tried to implement these competencies? Identify methods for implementing these content areas
3. How is diversity/cultural competence integrated into (research, clinical, professional development) competence? Identify how diversity is incorporated into the domain.
4. How are these competencies measured? Identify how competencies are evaluated

General Definitions

*Competence:* what individuals know or are able to do in terms of knowledge, skills, and attitude based on education, training, experience, and special assessment; involves the ability to perform a complex task or function and the ability to transfer skills and knowledge to new situations; as such, competencies are elements of “competence.” (Fraser & Greenhalgh, 2001; Kaslow, 2002)

*Cultural competence:* incorporates concept of awareness and knowledge of and sensitivity to other cultural groups with skills to effectively work with these different cultural groups (Sue, S, 1998).

*Capability:* extent to which individuals can adapt to change, generate new knowledge, and continue to improve their performance; capability is more than competence (Fraser & Greenhalgh, 2001).
DOMAIN I. PRACTICE

Specific Competencies

Clinical Attitude
- crucial to both the acquisition and development of clinical knowledge and clinical skills.

Examples include:
1. grounding in science/empiricism and willingness to use scientific data in clinical settings and clinical decision making
2. good critical thinking skills (skeptical, collect data, discriminate facts from opinions, openness to alternative views and conflicting data)
3. self-awareness, self-criticism, self-reflection
4. curiosity and flexibility
5. openness to lifelong learning and to supervision/mentoring

Clinical Knowledge and Skills
- general interpersonal qualities which mediate rapport-building efforts (e.g., non-specific therapist effects that help sustain the relationship; capacity for empathy)
- variety of technical skills which are acquired largely through training.

Examples include:
1. Assessment skills (both in general and with respect to specific commonly used and empirically sound assessment instruments
   - Technical skills in test administration, scoring, and interpretation
   - Understanding test construction and importance of reliability, validity, standardization, etc.
   - Ability to develop a good assessment protocol when confronted with the variety of clinical and/or consultation problems
2. Intervention skills
   - Knowledge of empirically supported interventions and ability to appropriately apply them
   - Understanding of how the extant literature informs clinical practice
   - Understand “non specific” factors in therapy and their influence on clinical outcomes
   - Understand mechanisms of behavior change and the ability to use this knowledge to assist clients
   - Ability to mentor/supervise others

Methods for Implementation
- the knowledge base of our students was evaluated systematically through academic program requirements (e.g., coursework, comprehensive exams, etc.)
- Didactic
- at admissions, identify interpersonal skills deficits which might compromise clinical effectiveness (applicant interviews; letters of recommendation)
Integration of Diversity/Cultural Competence in Clinical (Practice) Training

Didactic:
- Include readings that introduce students to diverse cultures and alternative worldviews re: issues of mental health/health
- Require readings that include empirical and clinical literature relating to race/ethnicity and other aspects of diversity (gender, sexual orientation, disability, spirituality) into clinical theory, clinical conceptualization, clinical assessment and interventions, and outcome

Experiential:
- Provide supervised training experiences in clinical environments with diverse populations
- Discuss/address issues of diversity in supervision (as they relate to the therapist-client relationship/treatment focus AND to the supervisor-supervisee interaction)

Measurement of Clinical Competencies

Rating Forms (commonly used to evaluate the ability of clinical students in training).
- evaluate clinical performance in practicum settings, and there was general agreement that the various rating forms sample similar skill areas in our routine evaluations.
- utilize a set of clinical challenges to establish more formal technical skills prior to advancement in the program. (e.g., first year students to demonstrate an ability to conduct an intake interview, formulate a case, sustain contact with a client over multiple sessions, and effectively chart treatment progress.
- supervisor observations (and ratings) which are all conducted independently and often with differing evaluation standards (e.g., program faculty rarely evaluate the same sample of behavior as a group).

Outcome Data.
- incorporate treatment outcome data into evaluation of clinical skill and effectiveness. (Problems with the overemphasis of outcome data, particularly as it relates to small sample sizes, were seen as self-evident, but a number of group members did think that treatment outcome does represent the bottom line for a profession which values empirically supported interventions. The contemporary advancement of practice research networks and formal outcome assessment protocols in some university-based clinics could extend the usefulness of such data, particularly when it is standardized, in the evaluation of therapist effectiveness.)

Quality Assurance Data.
- include client satisfaction measures (e.g., Robiner’s Quality Assessment and Improvement Systems)

Attrition Rates.
- the extent to which a student can establish and maintain contact with a client (unsuitable or unskilled students often have difficulty in extended contacts with clients).
- Therapeutic alliance measures as one source of information about the relationship qualities, which are indirectly reflected in therapy attrition rates, and the average duration of services. (e.g., Engagement Quotient (EQ) which attempts to quantify the extent to which the therapist sustains the active engagement of his or her clients).
Attitude Assessment.
- defensive reactions to supervisory feedback often indicate a counterproductive attitude (e.g., feedback is not useful, accurate, or fair) which requires modification if a student is to be successful in completing the personal challenges of a clinical training program.
- students should show a proactive interest and concern for the welfare of others, particularly their clients. One indirect indicator of a concern might be provided by student objectification of clients in their references to supervisors and others (e.g., “I hate seeing borderlines”, satisfaction when clients fail to show, etc.)

**DOMAIN II. RESEARCH**

*Specific Competencies*

**Technical skills**
- Familiarity and experience with a variety of research designs, especially those that can be used in practice, such as n=1 designs)
- Knowledge and skills with statistics and computer based statistical packages (SPSS)
- Flexibility in research approaches (large vs. small sample studies)

**Critical thinking skills**
- Ability to critically evaluate literature and identify gaps and directions for future research

**Grant writing skills**

**Ethical conduct of research**

**Skills to competently include diversity in the research process**

**Translational competency**
- Between basic and applied research
- Between research and practice
- Between clinical “theory” and empirical

*Methods for implementation*

**Didactic**
- Provide specific required and elective coursework that includes theoretical paradigms; philosophy of science; research methods; statistics; grant writing; research ethics; diversity; and integration of science with practice.
- Review existing courses, including research methods courses, to insure that content coverage relates to the overall training goals in research espoused by the program and that the set of courses are inter-related.
- Emphasize critical thinking (e.g., in reviewing existing research literature) and the reading of primary resources.
- Recognize the wisdom of training students in research methods that maximize the discovery of useful knowledge (e.g., use of strong inference, development of rival hypotheses rather than just
testing the null hypothesis, use of designs, measures, and control groups that will allow ruling out of one or more rival hypotheses).

- Prepare student to be capable of creating/producing a dissertation that is an independent and significant contribution to knowledge

**Experiential**

- Emphasize learning by doing: generating hypotheses, analyzing real data (in labs and in statistics courses), conducting research, writing and submitting IRB forms, and critiquing articles.
- Complete thesis and/or dissertation
- Encourage grant writing
- Have public opportunities to present research within the department (e.g., research “festivals”). Such presentations also motivate mentors to work closely and well with their students.

**Mentoring**

- Provide funded and unfounded research opportunities
- Involve/incorporate new students immediately into existing research labs
- Provide one-on-one research training
- Provide opportunities for autonomous learning
- Serve as a model for the spirit of discovery of new knowledge
- Focus on the “process” rather than the “product,” cultivate a focus on the intrinsic aspects of research rather than solely the extrinsic benefits of producing research.
- Inculcate attitude of relevance of research and curiosity

**Integration of Diversity/Cultural Competence in Research Training**

**Didactic**

- Incorporate diversity issues into all research courses (design questions; cultural context of research participants; sources of variance; limits of generalizability; issue of standardization vs. cultural sensitivity in research protocol; internal vs. external validity issues)
- Regularly include examples of research that have a diversity focus (by sample, research question, etc)
- Include recommendations for conducting culturally competent research prepared by the APA
- Review existing courses to see how “examples” or readings or other related materials could be added to the research curricula.

**Experiential**

- Attend to the potential role of diversity in any specific research study, whether that issue is at the heart of the study or not.
- Seek out/provide opportunities to include diverse populations in research activities.

**Measurement of Research Competencies**

- Cover research domain in comprehensive examinations
- Encourage students to develop a research portfolio documenting their training and experiences
- Passing courses in research methods, statistics, etc.
- Performance in completing thesis, dissertations, and other research projects
- Performance on research-related comprehensive exam areas
• Publications
• Presentations at scientific meetings
• Vertical mentoring/imparting skills to other students (grad/undergrad
• "In-Box Problem" give research problem to student to solve--what are their problem solving steps in simulated study

DOMAIN III. INTEGRATION OF SCIENCE AND PRACTICE

• Scientist-practitioner focus should be incorporated into all training experiences (courses, practica, research projects).

• Some programs require case presentations that are based on empirical evidence.

• Establish the training clinic as a research center (core outcome battery as infrastructure for descriptive, correlational, static group comparison, process, and experimental outcome research) for faulty and students in the conduct of clinically meaningful research. Use the research-training clinic as a vehicle for evolving within the program how we can best provide integrated scientist-practitioner training.

• Create collaborations among such research training clinics in a National Practice Research Network for the sake of exchanging information on how to best provide integration training and for the sake of collaborating on specific research projects.

• Incorporate new students immediately into clinical work grounded in empirical science.

• Train students in small-N designs, group designs, and meta-analysis. Ideographic research is particularly useful in the clinic and meta-analysis is particularly useful in becoming knowledgeable within a literature of empirically supported methods.

DOMAIN IV. PROFESSIONAL DEVELOPMENT

Factors that contribute to professional development within clinical programs:

Professional Development Competencies

1. Develop of a professional identity.
   • "think like psychologists,” including critical thinking and problem solving, openness to experimentation and new information, vision, and capacity for reflection and self-assessment.

2. Be exposed to and/or be trained in Consultation and Education plus Administration and Supervision.

3. Develop writing skills, including grant writing.
   • some practitioners may need to develop this skill even more than would researchers, i.e., to acquire service grants or contracts. Other important areas for the development of writing skills were case reports, journal articles (with some programs using the article format for theses or dissertations) and scholarly standards.

4. Model and encourage/develop leadership skills.

5. Establish successful relationships with peers and other professionals
6. Develop skills in the use of technology for research, teaching, and clinical work; critically evaluate the information on the web.
7. Develop the capacity for self-reflection and self-assessment and to articulate the results of such self-analysis.

Promoting and Evaluating Professional Development Competencies

1. Oral presentations.
   These are done in different ways in different programs with degrees of formality. This method allows for both assessment of the student's professional development, modeling by faculty or advanced students and as a tool to promote various professional competencies. Several programs also use it as a job-interview tool, requiring candidates to present both a research and a clinical colloquium. Finally, some programs hold mock ABPP examinations for students.

2. Weekly professional development seminars covering a range of useful topics: how to balance family and career; what it's like to (fill in the blank with professional roles); how to do advocacy on Capital Hill; how to give job talks; how to prepare your vita; developing teaching portfolios; current controversies (e.g., Rorschach); private practice issues; topics in the latest Monitor.

3. Field trips, including: court appearances, licensing board meetings, county mental health board meetings, as well as attention conventions with one's mentor.

4. Recognize accomplishments.
   One program reported on a local award for clinical activity beyond expectations for third year students. Based on peer nomination, this award seems to have stimulated much pro bono public service.

5. Mentoring as more useful than formal coursework for promoting professional development.
   Mentoring is an ongoing process not bounded by the academic calendar or the university campus. Cultural issues in mentoring and professional/career identity development were noted. It was also noted that we might need more training to become mentors as opposed to academic advisors of students. Finally, it was noted that students and mentors add to the diversity of pathways to professional development; that not all students will follow the same mold of development; that culturally diverse mentors or models may be needed from outside of a given faculty to contribute to the enterprise.

Two useful times to discuss professional development competencies with students:
- when as program directors we interview them preparatory to writing internship recommendations;
- at the conclusion of dissertation orals meetings.

CHALLENGES NOTED

- Difficulty in persuading faculty to cover certain issues or content (e.g., diversity) or lack of expertise among the faculty resources available
- Tremendous variability in the number of students that are mentored by faculty and the amount of time each mentor devotes to training students.
- The task of identifying students who are unsuitable or not sufficiently skilled for a career in clinical psychology becomes challenging. Suitability decisions “ultimately represent professional judgments
of a categorical nature” that involve detecting pronounced skill deficiencies (e.g., incompetence) rather than discriminating between various levels of capability or competence.”

- Reliability of the evaluations of the clinical skills and suitability of students. Agreement among program faculty appears common, but also striking differences in the assessment of students on the basis of discrepant faculty evaluation standards. The reliability and validity of faculty or supervisory assessments and conclusions regarding student skill and suitability is likely to remain a major issue in some programs.

- Faculty and students may view “professional development” somewhat differently--as socialization into the profession vs. as things that help obtain a job.

SUMMARY COMMENT

One of clinical skills discussion groups endorsed a statement from the 2001 Education Leadership conference that addresses all of these sections:

“Despite the diversity of bodies of knowledge foundational to psychology as a scientific discipline and profession, and despite the diversity of pedagogy models among doctoral programs in psychology, the group agreed that all psychologists should have:

- a substantive understanding of multiple determinants of behavior in individuals, groups, organizations, and communities;
- a “culture of evidence” perspective about behavior based on scientific inquiry and reasoning, replicable methods of observation and measurement, and interpretation of qualitative and quantitative evidence;
- an understanding of ethical principles applicable to practice, research, and teaching as well as a value orientation of respect for human diversity; and,
- an understanding of what it means to learn as a psychologist and a commitment to lifelong learning.”