Abstract

Psychological assessment is regarded as one of the eight key competence domains at the 2002 competency conference in the U.S. (Kaslow et al., 2004). After discussion during this conference, Krishnamurthy et al. (2004) proposed an eight-factor model that included eight competencies essential to good practice in psychological assessment. The purpose of this research was to explore the underlying structure of competence in psychological assessment in Taiwan. This research consisted of Study 1 and 2. In Study 1, 46 clinical psychologists were recruited to have a 1.5–2-hour interview. Eighty-four competency indicators were extracted from these interview data. Over half of these indicators could be grouped into one of the eight-factor model proposed by Krishnamurthy et al. The others not included in the eight-factor model were grouped into five different domains to represent some foundational competencies for professional practice in psychological assessment.

To explore the underlying factor structure of competence in psychological assessment in Taiwan, the Chinese version of the psychological assessment competency (C-PAC) scale was developed for data collection. In Study 2, 235 psychologists in Taiwan were asked to respond to the C-PAC scale. The exploratory factor analysis on this Taiwan psychologist sample revealed a ten-factor model that explained 67.44% of the total variances. The Cronbach’s alpha values of these ten factors ranged from 0.51 to 0.90. Findings of this research provided a culturally relevant framework for measuring psychological assessment competency in Taiwan.

Keywords: psychological assessment, professional development, competency-based assessment, instrument development
Introduction

Psychological assessment has been regarded as one of the main characteristics in clinical psychology (Groth-Marnat, 2000; Krishnamurthy et al., 2004; Piotrowski & Zalewski, 1993) over decades. Comparing with other health-related professionals, clinical psychologists have better education and training in assessment that allow them to use various psychological tests and assessment skills to facilitate psychological diagnosis and treatment plan (Krishnamurthy et al., 2004). In terms of clinical practice, Watkins (1991) mentioned, “…most practicing psychologists, regardless of work setting, provide assessment services and spend a fair portion of their professional time doing so” (p. 431). Assessment was also found to be one of the three most important clinical activities in Meyer et al. (1998) and Hsu, Huang, and Cheng’s (2009) survey research. When examining advertisements for clinical psychological positions, many of them highly emphasized capability in assessment (Kinder, 1994). Competency in psychological assessment seems to be an essential requirement for clinical psychologists in their daily practice.

How to prepare students with competency in psychological assessment has become a major concern for graduate programs to reconstruct their assessment courses as well as training activities. Professional psychology has shifted their training models from normative to criterion-related perspective and uses “competence” as a standard to train and evaluate professional psychologists from entry to practice (Fouad et al., 2009).

Definition of Psychological Assessment Competence (PAC) & its Hypothesized Components

What is competence? Epstein and Hundert (2002) have defined “competence” as “the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served” (p. 226). Competence seems to imply performance at an acceptable level, and can be conceptualized as an integrated concept that consists of knowledge, skills, and attitudes (Kaslow et al., 2004).

In November 2002, the Association of Psychology Postdoctoral and Internship Centers (APPIC) co-sponsored the Competencies Conference: Future Directions in Education and Credentialing in Professional Psychology in Scottsdale, Arizona (Kaslow et al., 2004). At this competencies conference, delegates from the U.S., Canada, and Mexico, with diverse training, education, and credentials, worked as groups to promote conversations to reach consensus on areas of competency.

At this conference, psychological assessment was proposed as one of the eight core competence areas. Based on consensus among psychology representatives in the psychological assessment workgroup, psychological assessment competency (PAC) was conceptualized under the competency-based perspective to include eight essential components (Krishnamurthy et al., 2004). Table 1 displays eight components generated from the group consensus at this competencies conference.
Table 1. Core Components of Psychological Assessment Competency (PAC)

<table>
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<tr>
<th>Eight core components generated from the 2002 competencies conference</th>
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<tr>
<td>1. Knowledge of psychometric theory</td>
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<td>2. Knowledge of psychological assessment</td>
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<tr>
<td>3. Knowledge of various psychology theories (cognitive, affective, behavioral, personality, …)</td>
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<td>4. The ability to evaluation treatment outcomes</td>
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<td>5. The relationships b/w clients and psychologists</td>
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<td>6. The ability to establish and maintain professional relationship</td>
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<td>7. The relationship b/w assessment and intervention</td>
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<td>8. Technical assessment skills</td>
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These components provided a theoretical framework for assessing psychological assessment in a competency-based perspective. Krishnamurthy et al. (2004) also mentioned, “The preceding list of core competencies is provided in global terms in order to underscore the major ingredients of psychological assessment competency. Further specificity could be achieved in each of the eight areas.” (p. 733).

To develop a competency-based scale to measure PAC, we need to explore the underlying structure of PAC in the competency-based perspective. Meanwhile, due to differences between the U.S. and Taiwan in the design of professional education (i.e., doctoral level vs. master level), the competencies expected of clinical psychologists in Taiwan might be different from what in the U.S. To answer this question, we conducted a qualitative study first to understand Taiwanese psychologists’ perspective of the PAC in order to determine the appropriateness of applying the PAC theoretical framework proposed by Krishnamurthy et al. (2004) on clinical psychologists in Taiwan.

**Purpose of the Present Study**

The purpose of the present study was twofold: (1) to conceptualize PAC from the Taiwan clinical psychologists’ perspective in order to develop the Chinese version of the PAC (C-PAC) scale to assess clinical psychologists in Taiwan, and (2) to examine the psychometric properties of the C-PAC scale in Taiwan. Sample 1 was used to explore the PAC theoretical structure in Taiwan in order to generate an initial item pool for developing the C-PAC scale. Sample 2 was used to investigate the underlying factor structure of the C-PAC in Taiwan as well as its psychometric properties.
Method

Participants

Two independent samples of clinical psychologists from health-care institutions, private practice, and clinical psychology programs in Taiwan were recruited on a voluntary basis in 2009. Sample 1 consisted of 46 clinical psychologists. More than 86% of them had a master or doctoral degree, and 52.2% of Sample 1 was female. Sample 2 consisted of 235 clinical psychologists. More than 85% of them had a master or doctoral degree, and 63.9% of this sample was female.

The Process of the Instrument Development of the C-PAC scale

In Study 1, 46 senior clinical psychologists from health-related institutes or universities were recruited to have a 1.5 to 2-hour in-depth interview. These interview data were coded and analyzed via the techniques of the Grounded theory and the Consensual Qualitative Research to generate items to assess PAC in Taiwan. An initial item pool of the C-PAC scale included 84 items that were grouped into 13 domains to represent core components of psychological assessment competency in Taiwan. In Study 2, 235 clinical psychologists were recruited to respond to the C-PAC scale to examine the psychometric properties of this instrument.

Data Analysis

Data analyses were carried out using the Statistical Package for the Social Sciences (SPSS for Windows, version 16.0, SPSS Inc., 2007). Reliability and validity were assessed by Cronbach’s α and construct validity. Construct validity was examined by the exploratory factor analysis (EFA) to explore the factor structure of the C-PAC.

Results

Study 1. Sample 1 included 46 senior psychologists from health-related institutes or universities. These psychologists were recruited to have a 1.5~2-hour in-depth interview. All these interview data were coded and analyzed by the techniques of the Grounded theory and the Consensual Qualitative Research. Eighty-four indicators were generated from these interview data. These indicators served as an initial item pool of the C-PAC scale to explore the PAC conceptual framework in Taiwan.

Among these indicators, 48 of them could be included in one of the eight-factor model (i.e., the U.S. PAC model). The other 36 indicators that did not belong to any U.S. PAC factor were grouped into five different domains, such as personal attributes, and clinical inferences. These five domains seemed to represent different aspects of psychological assessment competency, which were related to foundational competencies proposed by Rodolfa, Bent, Eisman, Nelson, Rehm, & Ritchie (2005).

Study 2. Sample 2 consisted of 240 clinical psychologists in Taiwan to examine the psychometric properties of the C-PAC scale. The exploratory factor analysis (EFA) on
this psychologist sample indicated a ten-factor model that explained 67.44% of the total variances. All these factors were labeled as the following: (1) Technical Assessment Skills, (2) Professional Relationship, (3) Psychology Background Knowledge, (4) Reciprocal Impacts between clients and psychologists, (5) Psychometric Basic Knowledge, (6) Self-Awareness during Diagnosis and Intervention, (7) Ethic Issues & Intervention, (8) Evidence-Based Practice, (9) Personal Attributes, and (10) Openness of Belief System. Their corresponding Cronbach’s alpha values were 0.90, 0.88, 0.85, 0.86, 0.76, 0.65, 0.51, 0.88, 0.86, and 0.83.

Discussion

As a newly developed instrument, the psychometric properties of the C-PAC scale are good. The EFA results of this study partially supported the theoretical 8-factor model generated from the 2002 competencies conference. Factors not included in the theoretical 8-factor model seem to illustrate other important competency domains for Taiwanese clinical psychologists in their daily practice. Findings of this study provided a culturally relevant framework for assessing psychological assessment competency in Taiwan. More research needs to be done to examine the psychometric properties of the PACS on Taiwanese people at different levels of professional development.

References


Watkins, C. E. (1991). What have surveys taught us about the teaching and practice of