

Utilizing the Modified Mini-Clinical Evaluation Exercise as a Professional Growth Measure for Young Psychologists in Taiwan

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Research has found the Mini-Clinical Evaluation Exercise (Mini-CEX) a valid measure that can assess the professional growth of healthcare providers, especially those who are currently in training. However, this instrument has rarely been utilized to evaluate the competency development in clinical psychology because some items in the scale are to measure skills outside its domains. To resolve this issue, a modified version of the Mini-CEX has been created. The present study aimed to use the modified Mini-CEX to explore whether a training program (e.g., internship) would help young clinicians improve their performance in psychological assessment. The investigators recruited 21 participants (10 psychological interns and 11 post-graduated-year [PGY] psychologists) who were conducting internship or receiving PGY training at the time of being assessed, and each of them was evaluated by their clinical supervisors twice (pre- and post-training) with the use of the modified Mini-CEX. The statistical results indicate that the psychological interns significantly enhanced their assessment skills via internship, but the same finding was not found among the PGY psychologists. In short, the research has reached two preliminary conclusions: (a) the modified Mini-CEX is considered an effective measure of proficiency in psychological assessment, and (2) clinical training is particularly critical for inexperienced psychological clinicians. Yet, the small sample size has limited the generalizability of current research findings. Thus, further investigations regarding the effectiveness of clinical training programs and the utility of the modified Mini-CEX are needed.

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Background and Introduction

According to Miller's (1990) pyramid model of clinical performance, there are four levels of competence development: Knows, Knows How, Shows How, and Does (see Figure 1). That is, clinicians need to accomplish the goals set up for each level to improve their clinical proficiency. However, the one thing that needs to be addressed in this study is that many people assume that passing a licensing exam would make the licensee an expert at the same time. This assumption is inaccurate for medical professionals because they are required to possess both knowledge and techniques to show excellent job performance; that is, having a license in healthcare can only demonstrate that the licensee has acquired the knowledge but not necessarily the skills. Taiwan has been well-known for the use of the national healthcare insurance (NHI), but issues described above are still inevitable in this country. Thus, to maintain a good reputation of the NHI system, many training programs designed based on Miller's (1990) concepts have been introduced to Taiwan to help the trainees with their professional growth, and among those, the internship and post-graduate year (PGY) programs have been widely adopted in a variety of medical professions, including clinical psychology. Nevertheless, quality of many programs developed for clinical psychologists remains unknown due to the lack of an appropriate instrument for measuring learning effects. Research conducted in Taiwan and the U.S. has found that the Mini-Clinical Evaluation Exercise (Mini-CEX) is a valid scale that can be used to evaluate the competence development of various healthcare providers (e.g., physicians and nurses). Yet, the Mini-CEX has never been utilized for clinical psychologists because some scale items are meant to measure skills outside their domains. To resolve this issue, a modified Mini-CEX has been created, and indirect evidence seems to support the use of this modified measure in clinical psychologists in Taiwan.

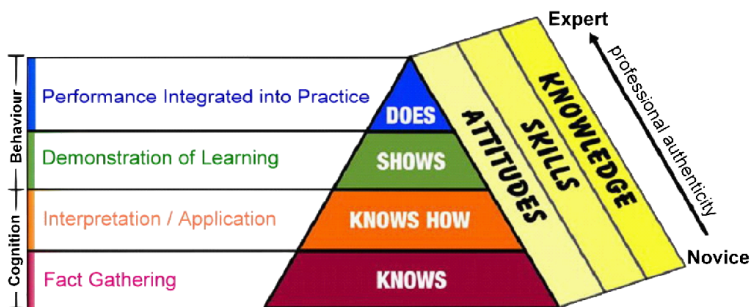


Figure 1. Miller's prism of clinical competence.

Objective

In practice, the internship and PGY programs have constantly been provided to healthcare providers in clinical psychology. However, researchers in Taiwan know little about the efficacy of such training arrangements. Therefore, our major goal is to investigate whether the internship and PGY programs would assist young clinicians in improving their proficiency in psychological assessment.

Materials and Methods

Subjects

The investigators recruited 23 participants, including 12 students conducting their Pre-Master's Internship and 11 young psychologists receiving their first year of PGY training.

Mini-CEX

The modified Mini-CEX used in the present study consists of eight dimensions of clinical competences: Psychological Pathology, Clinical Interview, Behavioral Observation, Psychological Tests, Clinical Judgment, Counseling Skills, Organization/Efficiency, and Humanistic Qualities/Professionalism. All 8 scale items are rated on a 9-point scale, ranging from 1 (unsatisfactory performance) to 9 (superior performance). Thus, higher Mini-CEX scores are indicative of more a better training outcome as well as more professionally competent.

Procedures

All participants were first divided into two groups (Intern vs. PGY) based on the training programs they attended. Each of them was then evaluated by their supervisors with the use of the modified Mini-CEX at two different points in time: Pre- and Post-training. In addition, it is worth noting that some participants were evaluated by more than 1 supervisor due to the supervision policy they had at the time of being assessed. Thus, a total of 184 mini-CEXs (96 for the Intern and the other 88 for the PGY) were provided for the present study.

Results

We adopted a 2 × 2 mixed factorial design for this study; thus, we analyzed the research data with the use of mixed factorial ANOVA. Evidence shows that there was significant main effect of training arrangement (internship vs. PGY), $F(1,21)=58.18$, $p<.001$ as well as of time period (pre-training vs. post-training), $F(1,21)=26.43$, $p<.001$. Moreover, there was significant training arrangement × time period interaction, $F(1,21)=10.99$, $p<.01$. Figure 2 indicates that the first year of PGY training did not significantly improve young psychologists' overall clinical performance, $F(1,10)=2.96$, $p=.12$, but internship, on the other hand, did remarkably help interns become more professionally competent, $F(1,11)=26.37$, $p<.001$.

Figure 3 shows the test results when the competencies represented by each Mini-CEX item were taken into account during the analyzing processes. Statistical data reveal that upon completion of their first year of PGY training young psychologists made significant improvement in their Counseling Skills, $F(1,10)=12.77$, $p<.01$, but the same finding did not apply to their other clinical competencies measure by the Mini-CEX. With regard to the learning effects found in the clinical psychology interns, evidence shows that they benefited from their internship in every capability rated in the Mini-CEX except the Humanistic Qualities/Professionalism, $F(1,11)=1.24$, $p=.29$.

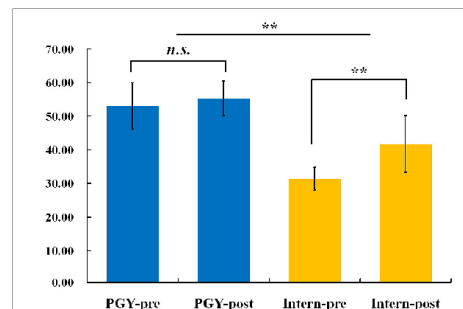


Figure 2. Mean difference values representing training outcomes within and between two groups. PGY-pre = pre-PGY training; PGY-post = post-PGY training; Intern-pre = pre-internship; Intern-post = post-internship. ** $p < .001$.

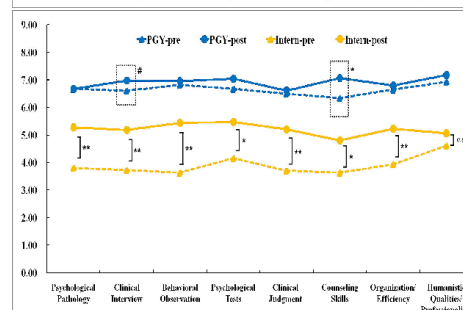


Figure 3. Mean difference values on each Mini-CEX item within and between two groups. PGY-pre = pre-PGY training; PGY-post = post-PGY training; Intern-pre = pre-internship; Intern-post = post-internship. # $p =$ nearly significant with a p value of .054, * $p < .01$, ** $p < .001$.

Discussion & Conclusions

This study aimed to examine whether training arrangements (clinical psychology internship and first year of PGY) would help pre-master's students and young psychologists with their professional growth. Evidence indicates that internship does remarkably improve interns' every clinical competence measured by the Mini-CEX except Humanistic Qualities/Professionalism. Compared to the promising findings in interns, the first year of PGY training does not seem beneficial to young psychologists as expected because they only make some insignificant progress upon completion of the training. So far it is not clear what attributes to these different results. One possible explanation is that young psychologists have possessed most competencies included in the Mini-CEX; therefore, the first year of PGY training does not provide them with satisfying effects as those carried out by internship for the interns. However, it is fair to claim that clinical training is still critical for people in the field of clinical psychology, especially those inexperienced.

Limitations

The small sample size has limited the generalizability of current research findings. In addition, lacking inter-rater reliability data for the modified Mini-CEX has made the results less ideal. Thus, further investigations with a more rigorous research design are needed.

Acknowledgment

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