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Background

According to a systematic review of residency training, improvements in individual competencies achieved through structured training programs have been shown to positively influence patient outcomes. One of the primary goals of residency training institutions is to produce specialists who are capable of independently performing essential core competencies. Accordingly, academic societies have made efforts to restructure residency programs toward a competency-based training model. This pilot study aimed to evaluate the effectiveness of a competency-based residency training curriculum.

Methods

Fourteen residents from two training hospitals participated in a competency-based educational program. A "competency-based residency curriculum," defining the minimum core competencies required to become a board-certified psychiatrist, was developed and implemented. The core competency assessment consisted of 15 domains, each evaluated separately for knowledge and procedural skills. Education and evaluations were conducted by supervising faculty members at each hospital. Assessments were performed before and six months after the education, and the results were compared. The percentage of 'Pass' items was compared and analyzed using a paired t-test.

Results

The overall percentage of passed items (combining knowledge and skills) significantly increased from 21.72% at baseline to 35.47% after training representing an approximately 14% improvement, which was statistically significant ($p < 0.001$). (Fig.1) In the subgroup analysis by residency year, the pass rate for the junior group (1st and 2nd grade) improved from 16.73% to 33.02%, and for the senior group (3rd and 4th grade) from 27.27% to 38.41%; however, the degree of improvement did not show a significant difference between the two groups (Fig. 2). In the knowledge domain, the pass rate improved from 21.72% to 35.47% (approximately 14% increase), and in the skills domain from 21.34% to 35.13% (approximately 14% increase), both of which were statistically significant ($p < 0.001$).

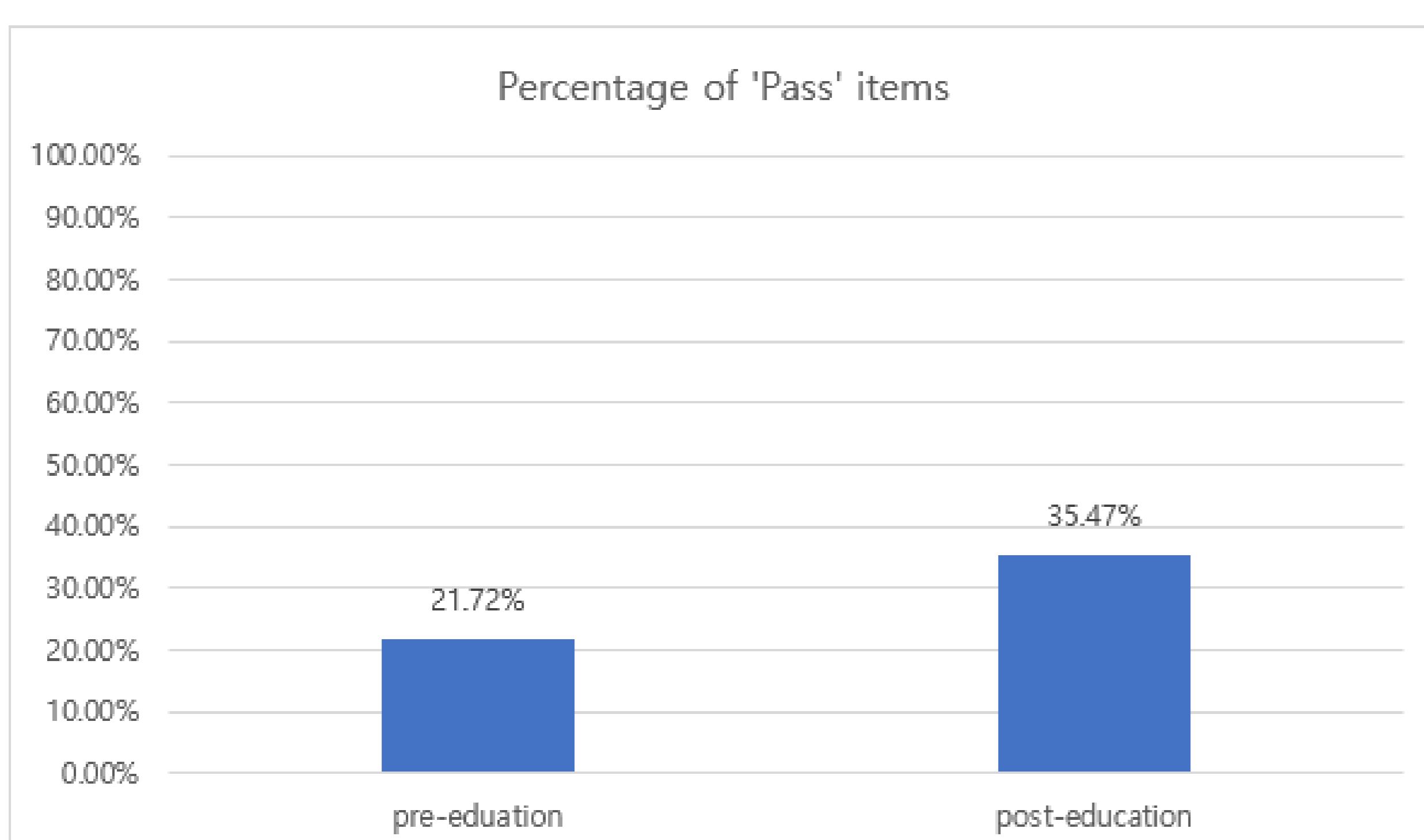


Fig 1. The overall percentage of passed items (combining knowledge and skills)

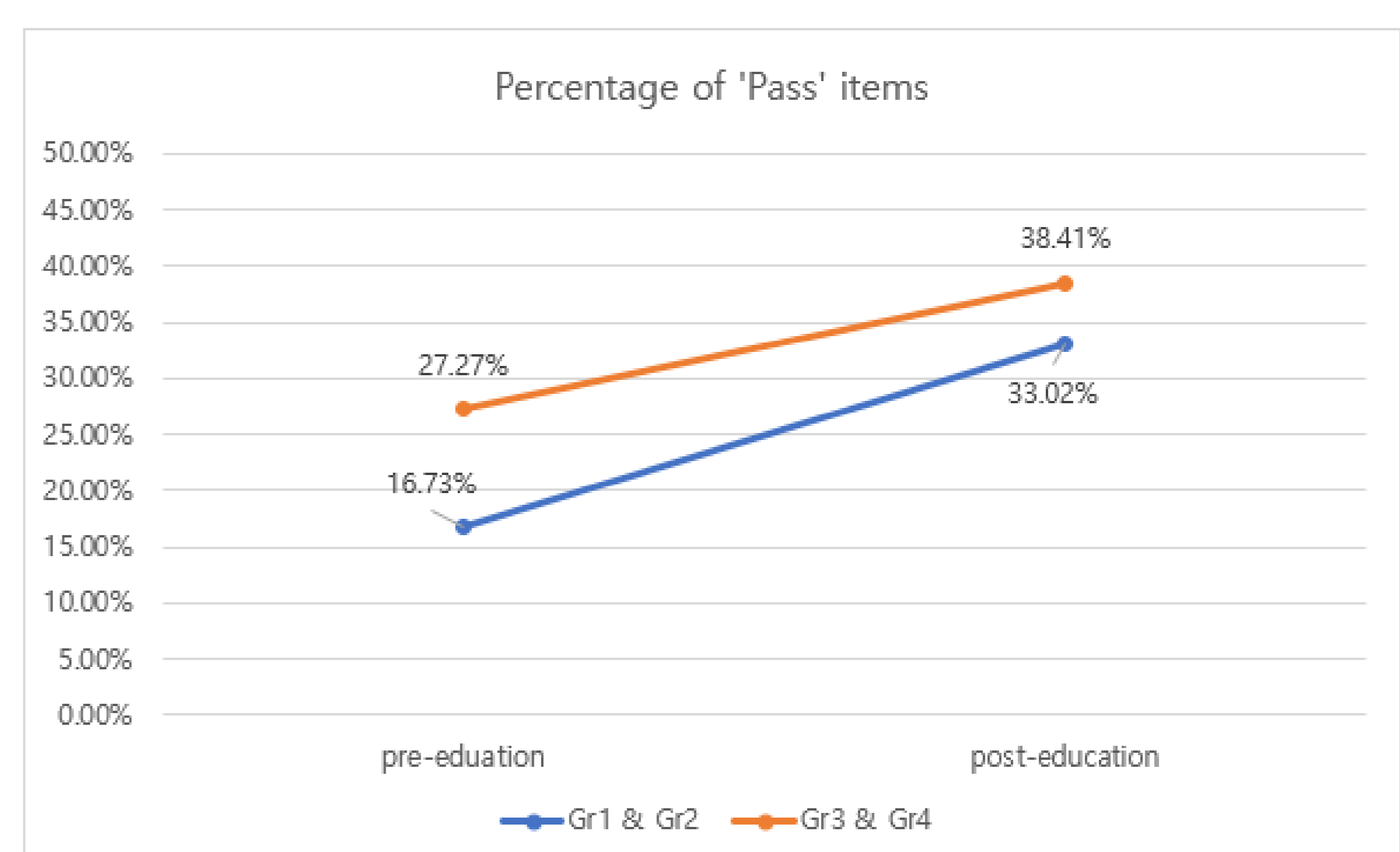


Fig 2. The percentage of passed items for the junior group (1st and 2nd grade) and for the senior group (3rd and 4th grade)

Conclusion

Our findings demonstrate that competency-based residency training effectively enhances resident competencies. The relatively low pass rate post-intervention may be attributed to the limited training duration. While the absence of a control group remains a limitation, these results warrant further research to address such constraints.

By establishing a competency-based training program accompanied by structured assessment and systematic feedback, it is anticipated that both the clinical and academic competencies of residents can be strengthened, ultimately contributing to the development of highly qualified specialists.