ABSTRAK

Latar belakang

Rendahnya angka temuan kasus refraksi menyebabkan anak tidak dapat dikoreksi dengan maksimal. Skrining gangguan refraksi memiliki peranan penting dalam temuan kasus. Pengetahuan dan keterampilan Guru Sekolah Dasar (SD) merupakan penyebab rendahnya angka skrining. Penggunaan *electronic learning (e-learning)* dan modul sebagai media pembelajaran dapat meningkatkan pengetahuan dan keterampilan guru Sekolah Dasar dalam penemuan kasus gangguan refraksi pada anak.

Tujuan

Mengetahui dan menganalisis perbandingan pengetahuan dan keterampilan guru SD dalam skrining gangguan refraksi pada anak antara pemberian *e-learning* dan modul.

Metode

Penelitian ini merupakan studi kuasi-eksperimental dengan desain *Two Group Pretest-Posttest*. Subjek penelitian, sebanyak 30 guru dari SD Hj. Isriati Baiturrahman 01 Kota Semarang, dibagi menjadi dua kelompok perlakuan: *e-learning* dan modul. Pengukuran tingkat pengetahuan dan keterampilan dilakukan melalui *achievement test* berupa *Multiple Choice Question* (MCQ) dan *Objective Structured Clinical Examination* (OSCE) pada *pretest* dan *posttest*. Analisis statistik menggunakan uji Wilcoxon *Signed Rank Test* untuk komparasi *pretest-posttest* dan uji *Mann-Whitney* atau *Independent Sample T-Test* untuk komparasi antar kelompok.

Hasil

Peningkatan signifikan nilai pengetahuan dan keterampilan klinis ditemukan pada kedua kelompok setelah intervensi (p<0,000). Hasil *posttest* pengetahuan menunjukkan kelompok *e-learning* mencapai rerata nilai yang lebih tinggi signifikan secara statistik dibandingkan modul (p=0,021). Analisis keterampilan juga menunjukkan kelompok *e-learning* secara signifikan lebih efektif (p=0,043) dibandingkan modul. Variabel perancu Sumber Informasi dinyatakan tidak berpengaruh signifikan terhadap nilai *posttest* (p > 0,400).

Kesimpulan

E-learning lebih efektif dalam meningkatkan tingkat pengetahuan dan keterampilan guru SD dalam skrining gangguan refraksi pada anak dibandingkan dengan modul. Implementasi pelatihan berbasis *e-learning* direkomendasikan sebagai strategi rutin untuk meningkatkan pengetahuan dan keterampilan guru.

Kata Kunci

Pembelajaran, *Electronic Learning,* Modul, Pengetahuan, Keterampilan, Gangguan refraksi.

ABSTRAK

Background

The low number of refraction case findings causes children not to be able to be corrected optimally. Refractive error screening plays a crucial role in case findings. Elementary School Teacher knowledge and skills are the cause of the low screening rates. The use of electronic learning and modules as learning media can improve the knowledge and skills of Elementary School teachers in detecting refractive errors in children.

Objective

This study aimed to determine and analyze the comparative effect of providing e-learning and modules regarding refractive errors in children on the knowledge and skills level of Elementary School teachers.

Methods

This study was a quasi-experimental study utilizing a Two-Group Pretest-Posttest design. The research subjects, 30 teachers from SD Hj. Isriati Baiturrahman 01 Semarang City , were divided into two treatment groups: e-learning and module. The measurement of knowledge and skill levels was carried out through an achievement test in the form of Multiple Choice Questions (MCQ) and Objective Structured Clinical Examination (OSCE) at the pretest and posttest stages. Statistical analysis used the Wilcoxon Signed Rank Test for intra-group comparison (pretest-posttest) and the Mann-Whitney U Test or Independent Sample T-Test for inter-group comparison.

Results

A significant increase in clinical knowledge and skill scores was found in both groups after the intervention ($p<0.000$). The posttest knowledge results showed that the *e-learning* group achieved a statistically higher and significant mean score compared to the module group ($p=0.021$). Skill analysis also indicated that the *e-learning* group was significantly more effective ($p=0.043$) than the module group. The confounding variable, Source of Information, was determined to have no significant effect on the posttest scores ($p > 0.400$).

Conclusion

Learning with electronic learning proved to be more effective in improving the knowledge and skills level of Elementary School teachers in the screening refractive errors in children compared to the module method. The implementation of *e-learning*-based training is recommended as a routine strategy to improve teacher competence.

Keywords

Learning, Electronic Learning, Module, Knowledge, Skills, Refractive error.