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EXPERIMENTAL STUDY ON THE EFFECTIVENESS OF PEDAGOGICAL SUPPORT IN DISTANCE LEARNING OF FAMILY PHYSICIANS IN THE HIGHER EDUCATION SYSTEM

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Abstract

the article presents the results of an experimental study aimed at determining the effectiveness of pedagogical support in the process of distance learning of family physicians in the higher education system. The research included ascertaining and formative stages of a pedagogical experiment. The study analyzed the influence of the developed pedagogical support model on the development of professional competencies and information technology skills of learners. The results demonstrated a significant improvement in professional competence and digital literacy among participants, confirming the effectiveness of the proposed pedagogical support model.

Keywords

distance learning, pedagogical support, professional competence, ICT skills, family physicians, higher education.

Introduction

The rapid development of information technologies has significantly influenced the modernization of the higher education system [1,2]. The introduction of distance learning technologies requires new approaches to the organization of the educational process and the development of effective pedagogical support mechanisms [3,4,9].

Distance learning plays an important role in the system of continuing professional education, especially in the training and professional development of medical specialists. In particular, the effective organization of distance learning for family physicians requires a well-designed pedagogical support system.

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Pedagogical support helps learners adapt to digital educational environments, improves their motivation for independent learning, and facilitates the development of professional competencies. Therefore, studying the effectiveness of pedagogical support models in distance learning environments is an important scientific and practical task.

The purpose of this study is to experimentally determine the effectiveness of a pedagogical support model in the distance learning process of family physicians within the higher education system [11-14].

Methods: the research methodology was based on competency-based, systemic, and learner-centered approaches in pedagogical science.

The following research methods were used: pedagogical experiment, observation, questionnaire survey, testing, statistical analysis [8,9].

The experimental work consisted of two main stages: ascertaining experiment, formative experiment.

The research was conducted among family physicians studying in postgraduate professional development programs.

Ascertaining Stage of the Experiment: The main objective of the ascertaining stage was to determine the level of development of professional competencies of family physicians studying at the faculty of postgraduate education, as well as their skills in using information technologies and their learning motivation in the context of distance learning [1-3].

At this stage, the following aspects were studied: the learners' readiness to use distance educational technologies, their level of proficiency in electronic educational resources, and their need for independent learning activities [4,5].

The results demonstrated that the majority of trainees possessed an intermediate level of knowledge and skills in information technology, which indicated a necessity for systemic pedagogical support.

Formative stage of the experiment: During the formative stage, the developed model of pedagogical support for distance learning was integrated into the educational process [11,12]. The training was organized based on an electronic information-educational portal, while the trainees received systematic pedagogical assistance [3,6].

Formative Stage: During the formative stage, the developed pedagogical support model for distance learning was introduced into the educational process.

The training process was organized using an electronic educational platform, which provided learners with continuous pedagogical guidance.

The following activities were implemented: development of electronic educational and methodological materials, organization of interactive seminars and webinars,

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pedagogical support for independent learning activities, continuous monitoring of learning outcomes.

Results and Discussion: A comparative analysis of the results from the diagnostic and formative stages confirmed the effectiveness of the developed pedagogical support model [13,14]. Changes in the level of trainees professional competencies during the diagnostic and formative stages of the experiment are presented in Table 1.

Level of competence	**Ascertaining stage (%)**	**Formative stage (%)**
High	18	46
Medium	42	38
Low	40	16

Table analysis: The data presented in the table indicates that during the diagnostic stage of the experiment, the majority of trainees possessed intermediate and low levels of professional competence. Upon completion of the formative experiment, the indicators for the high level increased by 28%, while the low-level metrics significantly decreased. This confirms the effectiveness of the developed pedagogical support model. Based on the presented data, a chart illustrating the changes in competence levels has been constructed.

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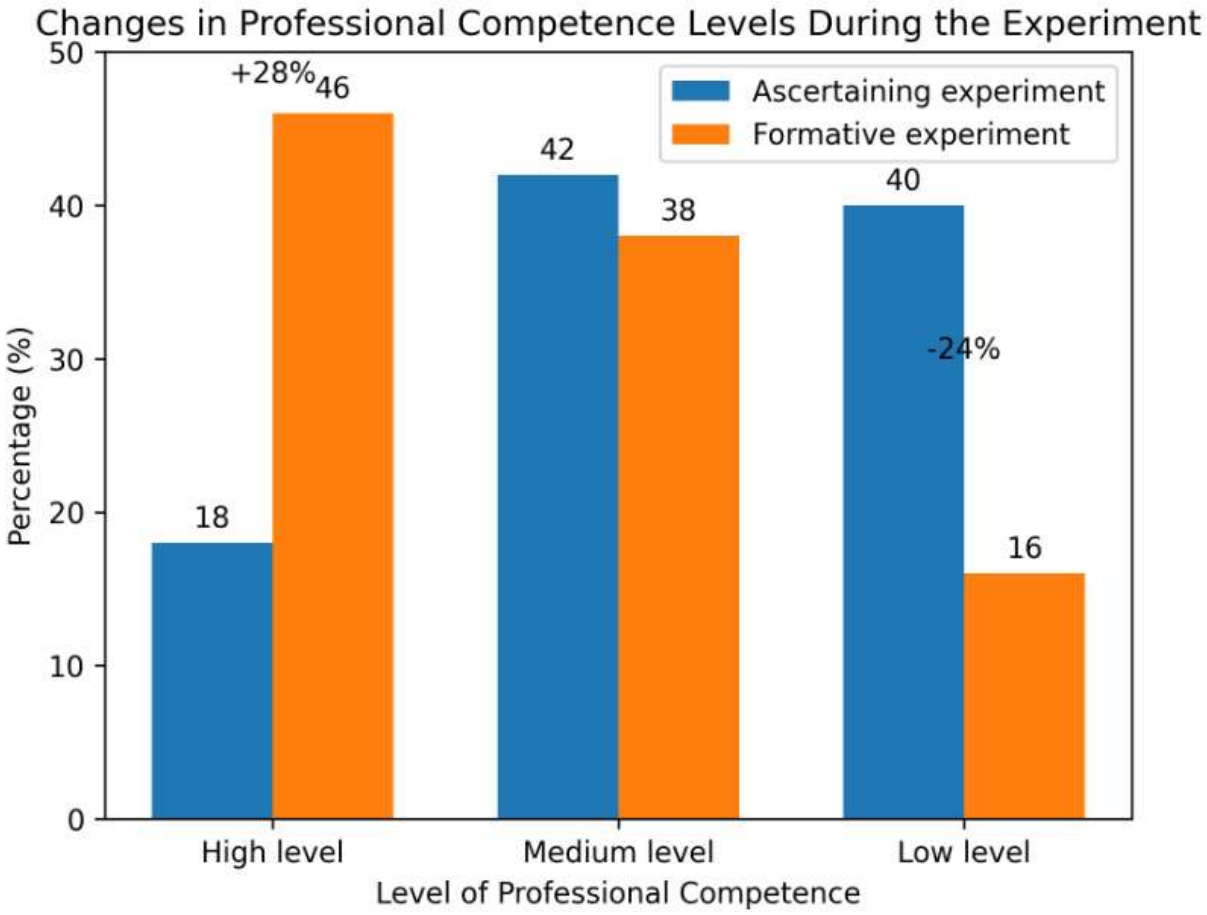

The dynamics of skills development in utilizing information and communication technologies (ICT) in distance learning are presented in Table 2.

ICT Skill Level	Beginning of Experiment (%)	End of Experiment (%)
High	22	51
Medium	39	34
Low	39	15

The results indicate a considerable improvement in the learners' digital competence and their ability to use information and communication technologies in the educational process.

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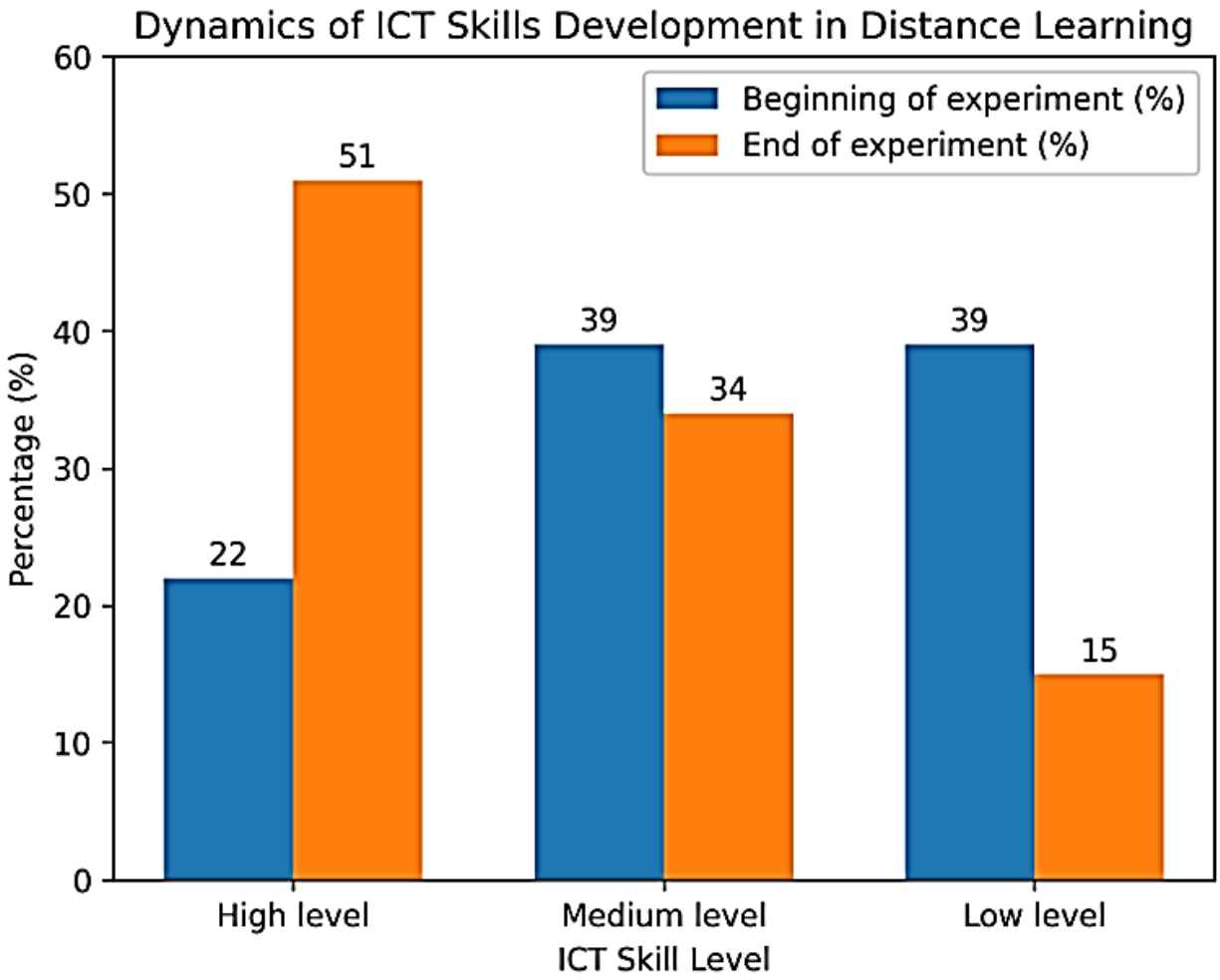

Discussion

The results of the study confirm that the implementation of a structured pedagogical support model significantly improves the effectiveness of distance learning.

The increase in professional competence and ICT skills demonstrates that systematic pedagogical guidance, interactive learning activities, and access to digital educational resources positively influence learners' academic performance and motivation.

These findings are consistent with previous studies that emphasize the importance of pedagogical support in distance education environments.

The developed model not only improves professional competencies but also promotes independent learning and digital literacy among family physicians.

Conclusion

The conducted research confirmed the effectiveness of the developed pedagogical support model for distance learning of family physicians in the higher education system.

The implementation of this model contributes to: improving professional competencies, enhancing ICT skills, increasing learning motivation, supporting independent educational activities.

Therefore, the integration of the proposed pedagogical support model into the educational process can significantly improve the quality of distance education in medical training programs.

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