Enhancing Disaster Nursing Competencies through AR/VR Technologies: The ECoDN-HUB Project

Dr. Zeynep ÖZER
Professor, Akdeniz University Nursing Faculty, Turkey

Selma Turan Kavradim
Assistant Professor, Akdeniz University Nursing Faculty, Turkey

Leyla Muslu
Assistant Professor, Akdeniz University Nursing Faculty, Turkey

Abstract:

Introduction: The ECoDN-HUB project is an Erasmus+ KA220-HED initiative aimed at enhancing practices and strengthening core competencies in disaster nursing. The effectiveness of healthcare services during disasters relies on the knowledge and skills of healthcare professionals. The project aims to increase knowledge and skills in disaster nursing, support digital transformation through scenario-based Augmented Reality (AR) and Virtual Reality (VR) applications, and establish a learning hub in this field.

Method: The project partnership is structured with three local and three European partners. Akdeniz University Nursing Faculty is coordinator organization, Koç University and Antalya Training and Research Hospital from Türkiye, Jihoceska Univerzita V Ceskych Budejovicich from Czech Republic, Universitatea De Vest Din Timisoara from Romania, Abo Akademi from Finland. AR/VR scenarios for eight core competencies in disaster nursing will be developed within the scope of the project. These scenarios will be tested through pilot studies by nursing students, educators, and nurses. Data collection methods include hands-on AR/VR simulation training, participant satisfaction surveys, and evaluation tests.

Expected Results: AR/VR simulations are expected to improve decision-making abilities, rapid response skills, and practical knowledge levels in disaster situations. Additionally, the project aims to raise awareness about the integration of digital educational tools into disaster nursing education.

Conclusion: ECoDN-HUB aims to enhance the quality of disaster nursing education by strengthening collaboration among academic institutions, healthcare organizations, and other stakeholders. This innovative educational approach seeks to improve the effectiveness of healthcare services during disasters, contributing to public health.

Keywords:

Disaster Nursing, Augmented Reality, Virtual Reality, Competency Development, Digital Education.