

第五届齐鲁护理（国际）青年学者论坛

Design of virtual reality interactive training system for public emergency preparedness under sudden major infectious diseases

罗月 西南医科大学

Abstract

Objective : To design a virtual reality interactive training system to improve public emergency preparedness under sudden major infectious diseases, so that the public can effectively respond to and recover from sudden major infectious diseases.

Methods : This study takes the interactive narrative theory, situated learning theory and human-computer interaction theory as the theoretical framework. Interactive narrative theory guides the design of story line of virtual reality interactive training system with interdisciplinary background. Situated learning theory provides theoretical basis for constructing immersive, realistic, social and practical learning environment. Human-computer interaction theory centers on user' s experience and designs friendly and user-friendly human-computer interaction interface. Using literature research method and Delphi method, consulting and interviewing multidisciplinary experts such as pedagogy, medicine, psychology, public health, computer to determine the educational content and system framework of the virtual reality interactive training system.

Results : The virtual reality interactive training system named "People' s war against epidemic". The content of education includes 21 knowledge, emotion and behavior skills in six aspects, such as cooperating with prevention and control work, improving basic equipment, ensuring personal safety, preparing economic resources, managing self emotion, and improving emergency response ability. The system framework includes virtual interactive training module, knowledge corner module, intelligent evaluation module and community forum module, and the core module is virtual interactive training module. In this module, users need to identify and analyze the controllability and harmfulness of the growing epidemic, and then select the correct prevention and control strategy, control the activities of virtual characters in various scenes of the community, and choose the correct behavior to avoid infection by themselves and others.

Conclusion: The virtual reality interactive training system of "People' s war against epidemic" creates a realistic learning situation for the trainers, enhances the immersion and experience of the trainers, enriches the theoretical system and education resource database of emergency preparedness training under the sudden major infectious diseases, and improves the effectiveness, fairness, accessibility and participation of education. The quality and application effect of the training system need to be further verified.