

become an important way to promote economic development and improve competitiveness. In this context, there is also increasing attention to patients with cognitive impairment. Cognitive impairment is an elderly disease that affects physical and mental health and life quality. Therefore, it has great practical significance to study the application of industrial upgrading and transformation path innovation of regional economy to cognitive impairment patients from the perspective of the digital economy.

**Objects and Methods.** 100 patients with cognitive impairment were selected as research objects by quantitative investigation. The Stanford Acute Stress Response Questionnaire and 3-min Confusion Assessment Scale were used to assess anxiety level and cognitive state. The study also analyzed and compared the application of the digital economy in the treatment of cognitive impairment.

**Results.** Research shows that accessible information and services provided through digital platforms and tools have a positive impact on cognitively impaired patients. According to the data, 80% of the patients used the online health management platform to acquire personalized rehabilitation programs and telemedicine services. They reported that the adoption of digital technologies has made them more autonomous and improved their quality of life and happiness.

**Conclusions.** The wide application of digital platforms and tools provides more opportunities and resources for patients with cognitive impairment. It also promotes the management and rehabilitation of cognitive impairment.

## The algorithm and model of user data privacy protection psychological anxiety

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**Background.** With the development of smart elderly care technology, the collection and use of user data caused privacy concerns and psychological anxiety. By studying algorithms and models that protect the privacy of user data, it is possible to prevent unauthorized access and misuse of data and promote the sustainable development of technology.

**Objects and Methods.** SPSS23.0 was used to conduct a quantitative investigation and research, and the sample included 200 users using smart elderly care technology. The Stanford Privacy Concerns Questionnaire (PCQ) was used to assess the level of privacy anxiety among users. Algorithms and models, such as data encryption and blockchain technology, are used to discuss the privacy protection of user data.

**Results.** The results showed that users had high psychological anxiety about data privacy protection in smart elderly care technology. According to the data, 70% of users expressed concerns about data breaches and privacy violations. However, after the

analysis and application of the model and algorithm, the psychological anxiety of users on data privacy protection has been significantly reduced, and 50% of users are satisfied with the privacy protection measures taken.

**Conclusions.** In the context of smart elderly care, users' psychological anxiety about data privacy protection exists. The introduction of new algorithms and models, such as data encryption and blockchain technology, can effectively reduce the psychological anxiety of users and improve the acceptance of data privacy protection measures.

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## Intervention effect of online and offline physical education model on anxiety disorder of undergraduates

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**Background.** The anxiety of college students has become a common phenomenon in The Times, and many colleges and universities have introduced the teaching mode combining online and offline to alleviate student's anxiety. The purpose of this study is to explore the effect of this model on students' anxiety disorders.

**Subjects and Methods.** The students in a university were randomly divided into an experimental group and a control group. The control group received regular offline physical education. The experimental group adopted the combination of online and offline physical education teaching mode with the introduction of an educational psychology strategy. The mode also includes students' burnout emotion, information literacy and self-control ability. The study used the general hospital Anxiety and Depression Scale (HAD) to obtain the anxiety disorder score data of college students and used the statistical software SAS to process and analyze the data.

**Results.** The study found that students in the experimental group had significantly lower anxiety disorder scores than those in the control group. The average anxiety score for the experimental group was 5.2, compared with 8.3 for the control group. T-test and analysis of variance were used to verify that the difference between the experimental group and the control group was statistically significant.

**Conclusions.** Research shows that online and offline physical education teaching mode can significantly reduce students' anxiety. This provides a reference for the efficient education management model and helps to promote the development of new teaching strategies.