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MATHEMATICAL MODELING ANALYSIS OF THE FEASIBILITY OF REGENERATIVE THERAPY FOR CENTRAL NERVOUS SYSTEM DISEASES

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Background: Neural stem cells, such as neurons, astrocytes and oligodendrocytes, can self-renew to generate new neural stem cells, which play a role in nerve development and repair of nerve damage. The research on stem cells can be traced back to the 1960s, but most of them focus on the research on hematopoietic stem cells and embryonic stem cells. It was not until the early 1990s that some laboratories reported that undifferentiated cells could differentiate into various neuronal cell types, including neurons, and separated them from mammalian brains. The study of the biochemical properties of neural stem cells has deepened people's understanding of the growth, development and plasticity of nerve cells, and the neural stem cells are regulated and modified in vitro and transplanted into the nervous system, which is used to treat nervous system diseases and make some drugs powerless. The treatment of systemic diseases becomes possible. The traditional view is that the mature central nervous system cannot regenerate after injury. The discovery that brain and spinal cord tissues have self-repairing functions, and the successful isolation and extraction of neural stem cells in adult mammals have given people a new understanding of central nervous system regeneration. Neural stem cells are the cytological basis for the self-repair of the nervous system. They not only exist during embryonic development, but also exist in adult mammals. Adult neurogenesis is regulated by various dynamic factors such as physiological, pathological and pharmacological stimulation, such as stroke, traumatic brain injury, spinal cord injury, neurodegenerative diseases, etc. Therefore, one of the goals of regenerative medicine is to use neural stem cells to promote the regeneration of the central nervous system in the injured areas of the brain and spinal cord.

Mathematical modeling is a way to make necessary assumptions based on known conditions for actual problems, and use mathematical methods to establish models to solve problems through certain quantitative relationships and spatial forms given by mathematical language. In the process of mathematical modeling, you can more intuitively understand the process of abstracting actual problems into mathematical problems, and you can apply mathematical methods to solve real problems.

Objective: For a long time, central nervous system diseases such as Alzheimer's disease, stroke, multiple sclerosis, etc. have been huge challenges facing human beings. There is no effective treatment method. However, with the research on the regeneration mechanism of the central nervous system, stem cells Discovery and the development of regenerative medicine have made it possible to reconstruct the structure and function of the central nervous system. Therefore, mathematical modeling can effectively analyze the feasibility of regenerative therapy for central nervous system diseases.

Study design: Use mathematical models to carry out simulation experiments, set specific parameter values, and assume that 1,000 patients with central nervous system diseases will be treated with nervous system regeneration therapy. With the development of regenerative medicine of the nervous system, a therapeutic method of implanting dopamine-secreting tissue into the striatum has gradually developed. Use mathematical models to analyze the feasibility of treatment measures.

Methods: Use Excel to calculate the feasibility of central nervous system regeneration therapy.

Results: It can be concluded that the central nervous system regeneration therapy is feasible by constructing the numerical simulation experiment of the mathematical model. It can effectively alleviate the disease condition of patients with central nervous system disease and control the condition. At the same time, as the disease is delayed, the patient's ability to take care of themselves in life can be effectively improved, and the patient's family burden can be reduced.

In the survey results, five levels from 0 to 4 are used to quantify the impact of specific factors. 0 means irrelevant, 1 means slight influence, 2 means normal influence, 3 means obvious influence, 4 means sufficient influence, in order to reduce the impact individual subjective causes large errors. Take the assessment value of 1000 patients with central nervous system disease and take the average.

Table 1. Feasibility results of central nervous system regeneration therapy.

| Factor | Disease condition | Self-care ability | Family burden |
|----------------|-------------------|-------------------|---------------|
| Specific value | 4 | 3 | 3 |

Conclusions: The progress of central nervous system regenerative medicine must be based on basic

cytology and developmental biology. Neural stem cells are the basis of central nervous system regeneration. Through mathematical modeling, the feasibility of regenerative therapy for central nervous system diseases can be effectively analyzed. In the process of mathematical modeling, the pathways and feasibility of central nervous system regeneration can be understood more intuitively, and mathematical methods can be used to solve central nervous system regeneration. Medical problems.

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THE IMPACT OF NEWS COMMUNICATION AND ENTERTAINMENT UNDER THE BACKGROUND OF NEW MEDIA ON RELIEVING THE EMPLOYMENT STRESS AND PSYCHOLOGICAL PRESSURE OF COLLEGE STUDENTS

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Background: With the interconnection of Internet technology, the massive and high-speed dissemination of information has become possible, and the phenomenon of news entertainment in the new media environment has become more and more serious. Large databases on the Internet can store almost unlimited information and provide a wealth of information resources, from the latest literary charts and scientific research to climate, transportation and travel in life, to the latest news events, including finance and marketing, entertainment and leisure, from computer programs to game programs. Due to the mass of news, the audience's choices are also diverse. Under the multiple effects of survival pressure, competitive pressure, and psychological pressure, viewers usually prefer entertainment-oriented news when choosing news. Such reports do not require the audience to use rich thinking. And imagination, directly showing the focus of the event, satisfying the gossip psychology, and finally having the pleasure of reading, and alleviating physical and mental fatigue. Internet communicators select events with entertaining elements when checking, and by quickly grasping the audience's curiosity and the pursuit of news click-through rates, they further promote the entertaining of online news. Multimedia communication in the new media environment refers to the use of digital technology on the Internet to integrate with newspapers, radio, and television, so that network messages can be used in multiple formats, such as text, images, audio, video, and animation. You can also synthesize text, images and sounds together to increase news dissemination channels, make news dissemination more comprehensive and detailed, make news smooth and vivid, increase the influence of news content, and stimulate audience appeal. At the same time, it can not only provide detailed background information, but also release the latest news at any time. Readers can bookmark their favorite news categories and mailing lists to save them, and they can also customize their favorite topics to facilitate subsequent media to push their interested content. Therefore, multimedia can provide many advantages that traditional paper media do not have.

Objective: With the continuous advancement of "Internet +", Internet applications are becoming more and more extensive, and the status of Internet-based new media in media communication is getting higher and higher. The number of APP users represented by Kuaishou and Douyin has greatly exceeded traditional media. The pan-entertainment of new media has caused a trend of moral pan-entertainment, which affects the consensus of college students and can effectively alleviate the psychological pressure of college students' employment tension.

Subjects and methods: Over the years, the "difficulty in obtaining employment" for college students has become a matter of great concern to society. Year after year, millions of college students have entered the ranks of job hunters. Most of them will experience varying degrees of negative mental states, and in severe cases, they may even develop into psychological disorders. Therefore, taking senior graduates as the research object, we will issue questionnaires to them to study and analyze the effect of news dissemination and entertainment in the context of new media on alleviating the psychological pressure of college students from employment tensions.

Study design: A questionnaire was issued to 500 senior graduates. The questionnaire was required to be completed at one time. The time for each person to fill out the questionnaire was about 10-15 minutes. A total of 500 copies were issued, 476 copies were recovered, and the effective number of copies was 469.

Methods: Use Excel statistics to analyze the effect of news dissemination and entertainment on alleviating the psychological pressure of college students from employment tension.

Results: Most college students experience varying degrees of negative psychology, such as anxiety,