Hypothesis On The Relationship Between Auditory Hallucinations Of Major Depressive Disorder And Human Consciousness And Thinking

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Abstract

As people's pace of life accelerates, the pressure of life they face is increasing. The handling of work, study, affairs and other events in daily life will bring various difficulties and problems, and people's improper handling of these events will cause mental health problems. With the continuous in-depth research of major depressive disorder researchers, researchers have found that there is a certain correlation between auditory hallucinations and major depressive disorder in patients with major depressive disorder, which further leads to several very important questions: What is the relationship between auditory hallucinations and major depressive disorder? What impact does auditory hallucination have on people's consciousness and cognitive activities? This article proposes that the auditory hallucinations of mental patients can be detected through animation, sound, pictures, brain-computer interface (BCI), magnetic resonance imaging (MRI) and other means, and proposes that auditory hallucinations are related to the consciousness and thinking of patients with major depressive disorder.

Keywords: Awareness; Auditory Hallucinations; Psychiatry; Psychological Phenomena

1. Introduction

There are some differences between auditory hallucinations in different mentally healthy people and auditory hallucinations in patients with major depressive disorder. Currently, there are not many research methods for auditory hallucinations in patients with major depressive disorder. Language is the material shell of human mental consciousness, and major depressive disorder hinders the brain's processing of language.[1] major depressive disorder affect our mind and behavior, affecting our cognition and state of consciousness. Our motivation is to use tools such brain-computer interfaces (BCI) technology and magnetic resonance imaging (MRI) to study patients with major depressive disorder and develop more scientific research methods for some auditory hallucinations that occur in patients with major depressive disorder.[2,3,4,5,6] In short, this study is looking for ways to provide some new research directions for patients with major depressive disorder in the field of audiology.

2. Hypothesis

It is proposed to use BCI and MRI to directly monitor the auditory language properties of patients with major depressive disorder to avoid many errors in our experiments. [2,3,4,5,6] Through objective data on the sentences and words that appear in their hallucinations, BCI and MRIm, combined with existing observations and surveys of patients with major depressive disorder, are used to explore whether they have auditory hallucinations when watching animations, watching images, and hearing sounds, and draw a series of conclusions to explain the mechanism of auditory hallucinations and the common imaging manifestations of patients with auditory hallucinations.[7,8,9,10] The sentences and words of the patients in this study include the internal language of the brain in the patient's normal thinking and consciousness state, as well as the auditory hallucinations of the patient in the chaotic state of the brain. The overall goal of this hypothesis is to record sentences and words in the brains of patients with major depressive disorder, and use the language map data of the patients' brains to understand the relationship between patients' auditory hallucinations and major depressive disorderes, and how these auditory hallucinations affect human brain consciousness and cognition.[11] This study records the language and other numerical and visual information within the patient's brain that can distinguish between normal and chaotic thinking and consciousness. With the development of future technology, we will successfully record this information.

3. How To Test And Predict The Future

In this study, brain-computer interfaces and magnetic resonance imaging can capture digital information about human brain activities related to experimental tests. This study captures digital information to investigate the changes in thinking and consciousness of the human brain in a short period of time, as well as the changes in language within the human brain. The digital information of the human brain tested in the experiment is very likely to be generated by the patient's thinking and consciousness activities. In the future, this study can provide clinicians with a clear method to distinguish hallucinations and cognition in patients with mental disorders.

4. Study Design

The subjects were divided into a group of normal people and a group of mentally ill patients. The relationship between the two groups was compared by analyzing their performance in different environments. The proposed hypothesis was followed and the nature of normal language and auditory hallucinations was discovered.

4.1 How to distinguish auditory hallucinations from inner language?

The internal language of the human brain is always interconnected, but auditory hallucinations arise from the confusion of the brain's thinking and consciousness. Therefore, the key to distinguishing auditory hallucinations from the correct internal language of the human brain lies in the correlation between the pre - and post language of the human brain.

4.2 How can the experiment be overturned?

If there is no jumping or inconsistency in the internal language and thinking of patients with severe depression during the experiment, it can prove that the experiment is incorrect or incomplete.

4.3 Selection criteria

The patients between the ages of 18 and 60 were only included. The subjects were then divided into two groups. One group, termed as the "Non diseased group" was comprised of patients with no major depressive disorder, while the other group, termed as "Disease group" was comprised of patients with major depressive disorder.

1. Volunteers with a personal or family history of major depressive disorder.

2. Patients with major depressive disorder.

Standard Procedures

The following strategies were adopted to ensure high quality of test results and control irrelevant variables:

1. All participants must perform activities and tests in a controlled and quiet laboratory environment.

2. All participants should remain silent and perform emotional regulation for 30 minutes before the trial.

3. All participants should avoid doing other tasks 30 minutes before the trial starts and do not look at any items.

4. Researchers should not place anything in the lab, nor should there be any other sounds or noises.

Before testing

The participants' dress, emotions, and expressions were observed before and after entering the laboratory to evaluate their mentality prior to and following the entire experiment, and to determine whether a stable mentality was maintained during the completion of the experimental task.

Patient status

Patients were tested using psychiatric scales and their daily frequency of hallucinations, symptom status, and medication use were recorded through follow-up and questionnaire surveys.

Problems before testing

When the experimenter arrived at the laboratory, some psychological questions were asked to analyze the experimenter's reactions. Through this analysis, a general understanding of the emotions reflected in the experimenter's body was obtained. At the same time, the reaction process revealed whether the experimenter remained calm and whether any confusion in thinking was present.

Testing

Then, the experiment was initiated. A brain-computer interface and a magnetic resonance scanner were connected to the participants' brains to record neural activity related to language processing. Next, a picture test was conducted. Pre-prepared images were used by the doctor for evaluation. After the test, a 5-minute break was given. For the animation test, pre-prepared animations were played using electronic devices. A 5-minute break was provided after the test. During the sound test, pre-prepared audio stimuli were presented. A 5-minute break followed the test. Upon completion of all tests, the subject left the laboratory, and data analysis was initiated by the investigator. The subject left the laboratory and the investigator began to analyze the data.

Specific test content

Image testing

The subjects were shown a picture of a wheel for 3 minutes. During this period, they were not allowed to speak, receive additional cues, read any text, or hear any sound. Language-related brain activity was recorded by the researchers throughout this time. Subsequently, a picture of a running horse was presented, and the subjects were instructed to view it 3 minutes later. Preventive measures at this stage were consistent with those applied during previous observations.

Animation test

The moving images of the two rotating wheels and the image of the moving horse were given to the subject for viewing, and the brain was monitored for 3 minutes.

Sound test

The subjects listened to two 3-minute conversations between two people. The recordings were free of useless noise such as background noise. While the subjects listened to the conversations, the researchers recorded their brain activity. Brain-computer interface system, MRI and related hardware tools

Analysis and processing of experimental operations and test results

The experimental operation follows standard operating procedures and procedures, and the analysis and processing of experimental test results follow conventional mathematical models and data processing methods of brain computer interfaces and digital image processing. Screen and compare the sample of experimental data from patients with the sample of experimental data from normal individuals to identify different data, and distinguish between normal and chaotic language, thinking, and consciousness within the human brain based on the processed experimental results.

Informed consent, pain, privacy, and risk of misunderstanding

The experimenter signs an informed consent form. Provide psychological counseling services to participants after the experiment to reduce their psychological pain and fear. Filter and exclude private data in the process of processing experimental data. Conduct follow-up and workshops after the experiment to reduce the risk of misunderstandings among participants.

The researchers used brain-computer interfaces and MRI scanners to record sentences and words in the brain that were related or unrelated to the conversations, and analyzed the sentences and words recorded by the two groups of subjects by computer to determine the differences between patients with major depressive disorder and healthy people. The auditory hallucinations can be also studied in more detail and reveal how auditory hallucinations affect or appear in our human cognition and consciousness. These results can also be used to develop treatment plans for auditory hallucinations.

5. Reflection

This hypothesis is mainly intended to provide suggestions for the treatment of hallucinations. Doctors and scholars can rely on this language research on major depressive disorder hallucinations to understand the lives of patients, and use language tests for major depressive disorder auditory hallucinations to provide knowledge in all aspects of neuroscience, including emotions, cognition, language structure, nervous system and consciousness. In this way, clinicians and researchers can gain a new understanding of human consciousness and thinking.

6. Conclusion

Researchers used advanced technologies such as brain-computer interfaces and MRI scanners, combined with experimental stimuli such as images, animations and sounds, to map the auditory hallucinations of patients with major depressive disorder. This is expected to help treat patients with major depressive disorder and solve unsolved problems in the fields of neuroscience and major depressive disorder. The proposal of this hypothesis is conducive to improving the diagnosis and treatment level of major depressive disorder in Central Asia and around the world.

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