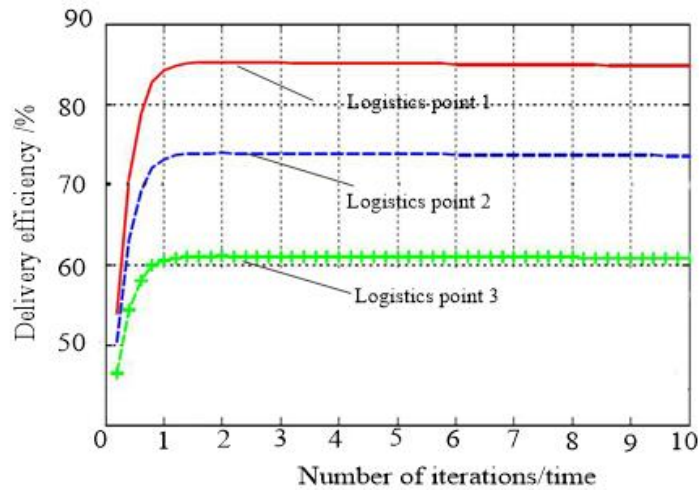


In the logistics distribution path planning model which is oriented to the psychological influence after material damage, it includes multiple logistics distribution points, which are distributed to three logistics points respectively, and the logistics transportation efficiency of rescue sites is analyzed.

**Results:** According to the above settings, the logistics distribution efficiency of the logistics distribution path planning model for the psychological impact of material damage is shown in Figure 2.



**Figure 2.** Logistics distribution efficiency of logistics distribution path planning model for psychological impact after material damage.

By analyzing the data in Figure 2, it can be seen that the material distribution efficiency of the three disaster relief points in the experiment is different by using the proposed model. With the continuous change of the number of experimental iterations, the distribution efficiency of the three material rescue distribution points is constantly changing, among which, the logistics distribution efficiency of distribution point 1 is the highest, which is due to the optimal path in the proposed model transportation.

**Conclusion:** In emergency rescue, the distribution of emergency materials is an important part of emergency management. Reasonable and effective distribution of materials can not only improve the efficiency of emergency rescue work, but also appease the panic of the affected personnel, and provide a guarantee and basis for the smooth development of the follow-up rescue work. On the basis of summarizing the current research situation at home and abroad, this paper analyzes the background of earthquake disaster, considers the psychological factor of material damage faced by disaster victims, and studies the distribution of emergency materials. The results of the study are as follows:

(1) The psychological problems of the affected persons in the face of material damage are studied, the individual factors, event factors and social factors that constitute psychological perception are subdivided, and the age structure and educational background of the representative affected persons, the degree of damage caused by the emergency and the perception time of the affected persons are selected to describe the psychology.

(2) The model is applied to the specific cases of emergency material allocation decision, and the delivery results are compared and analyzed to verify the validity and applicability of the model.

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## VISUAL COMMUNICATION EFFECT OPTIMIZATION OF PUBLIC WELFARE POSTERS BASED ON COGNITIVE PSYCHOLOGY

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**Background:** Cognitive psychology is a trend of thought and research in psychology that emerged in the West in the mid-1950s. In a broad sense, it refers to the study of advanced human psychological processes, mainly cognitive processes, such as attention, perception, representation, memory, creativity, problem

solving, speech and thinking, etc. The narrow sense is equivalent to contemporary information processing psychology. That is to use the information processing perspective to study the cognitive process. Its historical background can be traced back to the ancient Greek era two thousand years ago. At that time, some outstanding philosophers and thinkers such as Plato and Aristotle had thought about the cognitive process of memory and thinking. For posters, we mainly use vision as the main judging factor, but if we can add other sensory experiences, we can give the audience a new feeling. Public welfare posters have the characteristics of general posters, namely the three elements of the poster's graphics, text, and color. These elements are the main manifestations of posters, which are basically based on simple visual stimuli. This research introduces the perception principles of cognitive psychology into the design of public welfare posters, breaks through the display of a single visual plane, expands the creation of visual works, and creates sensory experiences. In addition to stimulating the audience visually, it is also necessary to innovate in the senses such as hearing, touch and smell to make public welfare posters more interactive.

Cognitive psychology's research on perception shows that people's perception of objective things is based on past experience. The more topics that can attract people's attention, the stronger people's thinking ability. Different from the traditional form of expression, it can visually attract the audience's attention. Studying the visual communication effects of public welfare posters from multiple angles will be a new conceptual thinking. This kind of creativity is not only different from the traditional poster design concept, but also can discover new creative ideas, making the public more immersive when watching the poster. This is a kind of innovation and experimentation, which provides a new design idea for improving the visual communication effect of modern public welfare posters.

**Research objects and methods:** A total of 90 public welfare poster designers volunteered to participate in this study, with the age range of [25-45]. The designers were randomly divided into experimental group and control group, with 45 in each group. All designers have no psychological or other diseases.

The paper studies the process poster designers of the experimental group and the control group, and observes the visual communication effect of the public welfare posters before and after the experiment. The experimental time was 8 weeks, and in the 8 weeks, the experimental group was given cognitive psychological education for 20 minutes a day, while the control group did not take psychological intervention measures. The experimental group and the control group were designed daily public welfare posters.

After the implementation of the experiment, the two groups of personnel were tested by questionnaire. When all the personnel answered the test papers, they were collected immediately. A total of 90 papers were distributed and 89 were recovered, of which 85 were effective questionnaires, and the effective rate was 94.44%. The effective recovery numbers of the experimental group and the control group were 43 and 42

The data were collected by classification and comparison, and SPSS17.0 software was used to process the experimental data. The statistical method was variance test.

**Result:** The comparison results of visual communication effect of public welfare posters before and after the experiment between the experimental group and the control group are shown in Table 1 and Table 2.

From the experimental results in Table 1 and Table 2, it can be seen that the visual communication effect of the control group before and after the experiment was very close to that before the experiment, and basically did not change. Taking the overall layout as an example, before the experiment ( $1.45 \pm 0.276$ ) and after the experiment ( $1.65 \pm 0.748$ ), there was no change ( $P < 0.05$ ).

Before and after the experiment, the indicators of the visual communication effect of the public welfare posters in the experimental group showed significant changes, and the overall layout was also analyzed, which was ( $1.72 \pm 0.748$ ) before the experiment and ( $3.85 \pm 0.324$ ) after the experiment. It shows that the visual communication effect of public welfare posters can be effectively improved under the intervention of cognitive psychology.

**Table 1.** Dance training of the control group before and after the experiment ( $\bar{x} \pm s$ ).

	Before experiment	After experiment	P
Color weight	1.31±0.304	1.54±0.628	
Color sense of warmth and warmth	1.45±0.205	1.96±0.385	
Sense of color distance	1.62±0.425	1.79±0.479	
Propaganda significance	1.51±0.368	2.07±0.485	<0.05
Collocation of words	1.47±0.483	1.68±0.451	
Theme style	1.23±0.392	1.79±0.437	
Overall layout	1.45±0.276	1.65±0.748	

Note:  $P < 0.05$ , with statistical significance.

**Table 2.** Dance training before and after the experiment in the experimental group ( $\bar{x} \pm s$ ).

	Before experiment	After experiment	P
Color weight	1.34±0.441	3.85±0.512	
Color sense of warmth and warmth	1.58±0.485	4.77±0.403	
Sense of color distance	1.69±0.105	3.81±0.305	
Propaganda significance	1.56±0.561	5.10±0.241	<0.05
Collocation of words	1.69±0.574	4.81±0.356	
Theme style	1.88±0.488	3.96±0.281	
Overall layout	1.72±0.748	3.85±0.324	

Note:  $P < 0.05$ , with statistical significance.

**Conclusion:** As a designer in the new era, we should create more possibilities of public welfare poster design, think from a new angle, and innovate new forms of public welfare poster design from the perspective of cognitive psychology, so as to provide new reference for the majority of designers. We should fulfill the social responsibility, pay attention to the social focus, explore the harmonious development of human and nature, advocate correct values and world outlook, and promote human civilization.

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## EFFECT OF PSYCHOLOGICAL INTERVENTION IN DANCE TEACHING

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**Background:** Sports dance is an international popular fashion sports activity, which is competitive, artistic, fitness and entertainment with the characteristics of sex, sociality and so on, it is gradually loved by the majority of students in Colleges and universities. It integrates fitness and mental health. At the same time, it is not limited by venues and equipment. The amount of exercise can be large or small. It is suitable for people of different ages. Therefore, compared with other sports, it has more outstanding exercise value. However, in the process of sports dance teaching, many college students often show psychological problems such as boredom, anxiety, rebellion and inferiority, which affect the “teaching” and “learning” in sports dance teaching. Therefore, it is necessary to analyze the causes of psychological barriers of college students in sports dance teaching, explore the methods of psychological control, stimulate students’ interest and enthusiasm in learning sports dance, so as to make sports dance become a lifelong sports event for college students, and provide reference for improving sports dance teaching.

**Subjects and methods:** In this paper, through the sports dance teaching college students’ common psychological barriers and cause analysis, as follows:

(1) Tired of psychology. The weariness psychology in the physical education dance teaching is to study suddenly cold and hot. Once the difficulty of learning is increased, it is easy to keep up with it for a while, it is easy to be unstable, mentally depressed, slack, or even lose interest in learning and give up not to learn. The reason is: Nowadays, most colleges and universities adopt the system of students choosing sports events by themselves. Therefore, many students have to choose sports dance knowledge because of the examination factors when they cannot choose their favorite items, which has strengthened their confidence and courage to become a talent.

(2) The head teacher should study the students. Studying students is a necessary condition for successful education, and the best way is through activity observation. To understand the style of class and study, to understand the main advantages and disadvantages of the class and analyze the reasons, to understand the general cultural level of parents, to find the weaknesses that need to be corrected; to study the personality characteristics of students (including ability, temperament, personality, hobbies, etc.), to understand the personal living environment, to master which are activists, which are students that need special attention, and so on.

(3) Class teachers should cultivate a group of class cadres with high efficiency. The collective appearance of a class is largely determined by the class cadres. Class cadres play an important role in the class. I call them the left and right hands of the class teacher. Therefore, only by carefully selecting and training cadres, can the work of the head teacher gradually change from heavy to simple and easy.

**Study design:** This study uses spss20.0 to analyze the average of heart rate data and mental health scale